

**STDF PROJECTS 89 & 120  
EX-POST EVALUATION**

**SECTION 1**

**STDF 89; INTERNATIONAL PLANT HEALTH RISK ANALYSIS WORKSHOP;  
NIAGARA FALLS, CANADA, 24-28 OCTOBER 2005.**

**SECTION 2**

**STDF 120; PLANT HEALTH RISK ANALYSIS REGIONAL WORKSHOP;  
CHENNAI, INDIA, 5-9 MARCH 2007.**

**SECTION 3**

**PRELIMINARY EVALUATION OF THE IPPC  
“TRAINING MATERIAL ON PEST RISK ANALYSIS BASED ON IPPC STANDARDS”**

**Alan Pemberton B Sc OBE,  
Plant Health Consultant,  
York, UK.  
May 2008.**

**About the author.**

Alan Pemberton is a plant quarantine specialist with nearly 35 years' professional experience in plant health at the Central Science Laboratory (CSL) of the UK Ministry of Agriculture (DEFRA).

He trained as a plant pathologist/virologist. His first professional post was head of the Virology Section at CSL; duties included virus diagnostics, research, guidance on eradication and control, and crop certification schemes.

From 1980 he headed the CSL Plant Health Consultancy Team responsible for scientific aspects of UK plant health import legislation, PRA, quarantine pest containment/eradication and export advice. He represented the UK at EU, EPPO, IPPC and other international meetings. In his final two years at CSL, he represented Europe on the IPPC Standards Committee and Working Group.

In September 2003, he was awarded the 14th gold medal of the European & Mediterranean Plant Protection Organisation (EPPO) and in January 2004 was made an Officer of the Order of the British Empire (OBE) by Her Majesty, Queen Elizabeth II, both for "services to plant health".

He retired in November 2003 and was made an honorary Fellow of the Central Science Laboratory. Since retiring, he has been a specialist plant health consultant completing contracts for the FAO-IPPC, the WTO-STDF and the governments of Canada, China and Mexico.

## EXECUTIVE SUMMARY

This evaluation consists of three elements:

1. STDF 89 and the International PRA Workshop, Niagara Falls, Canada, 24-28 October 2005;
2. STDF 120 and the Regional Workshop on Pest Risk Analysis, Chennai, India, 5-9 March 2007; and
3. a preliminary evaluation of the IPPC “training material on pest risk analysis based on IPPC standards”.

The two STDF projects are being evaluated together because they both have, as a core component, the development of a package of training material for PRA under the IPPC. Certain training materials were prepared for Niagara Falls workshop. However, these were further developed for delivery at the Chennai workshop and have subsequently been edited, enhanced and published on the IPPC website (the IPP).

The evaluation largely involved a desk study of documents associated with the two workshops and the package of IPPC PRA training material. In addition, two questionnaires were developed, submitted by email to all the participants of each workshop and the replies analysed.

### **STDF 89; the Niagara International PRA Workshop (24-28 October 2005)**

73 (54.5%) of the 134 national participants were from developing countries. In addition, there were 10 participants from international organisations. The original brief was for 100 participants with 50% from developing countries; both targets were exceeded. 38 formal plenary presentations were delivered, of which seven were from developing country participants. In addition there were 45 poster presentations of which two were from developing countries.

Topics covered by the plenary and poster presentations were hugely diverse reflecting the complexity and breadth of the subject. The organisers are to be congratulated for the balance achieved. Subjects ranged from international law and standards, through approaches to and models for PRA via the specifics of entry, environment and economic assessment, the challenges of LMOs and alien invasive species, through risk management and communication to information sources and training. Late afternoon and evening break-out sessions enabled participants (in either French or English) in groups of 15-20 to debate a range of themes particularly from the practical perspective of PRA. A field trip took place examining Canadian experience on the eradication of the wood boring beetle *Anoplophora glabripennis* (Asian Longhorn Beetle).

The results of questionnaires clearly indicate that the participants were hugely satisfied with all aspects of the workshop. For future workshops, numerous suggestions were made both for greater emphasis on certain topics and for new topics to be considered. From the follow-up questionnaire, most respondents have clearly made considerable use of the Niagara experience, in particular through reports to colleagues, enhancing their PRA delivery, utilisation in their training programmes and extending their personal contacts in PRA. Many requested that the workshop be repeated on a regular basis with some suggesting that future workshops should perhaps be more targeted to particular audiences. However this could create funding issues and may be deemed as divisive by some parties.

The workshop was delivered on time and apparently to budget. The majority of the individual aims set by the steering committee were clearly achieved. Only ISPM 21 and regulated non-quarantine pests (RNQPs) appears not to have been addressed; this is a challenging subject for risk analysts and is perhaps to be expected.

### **STDF 120; the Chennai Regional Plant Health Risk Analysis Workshop (5-9 March 2007)**

The development work for the course was provided in kind, mainly by Canada. Delivery in India was by three experts from Canada plus one from the UK (salaries by the respective governments and T & S by the STDF). The 5-day course consisted of 15x20 minute formal lectures and 15x90 minute practical sessions of interactive exercises and discussion. The sessions were supplemented by a course manual and an exercise manual for each participant. There were 23 participants, 19 from the plant quarantine service with others from research and a private seeds company.

Feedback from a survey done at the workshop was extremely complimentary; expectations were fully met or exceeded. The course structure seemed about right with generally more time being requested, particularly for the exercises. The student’s manual elicited particular praise. At the end of the course, generally participants considered they were sufficiently well trained to carry out PRAs, but perhaps not train others. All would

recommend the course to colleagues. Under “additional comments” the strong theme was requests for more examples of PRAs covering a wider range of organisms/situations and tailored to particular countries or circumstances.

Only four out of the 23 participants responded to the follow-up questionnaire circulated by email in April 2008 (see Annex II). Viable email addresses was an issue. Nevertheless the four replies that were received strongly support the above responses. Organisation and venue were marked as “excellent” or “very good” with the lectures, manuals, exercises and overall balance marked unanimously as “excellent”. Further workshops were strongly urged with the emphasis on more specialised topics to build on established expertise and experience.

Clearly, the course was highly successful and well received. Since the Chennai workshop, all respondents reported considerable use of their experience with reports to colleagues, numerous PRAs completed and training enhanced. 12-15 experts are now actively involved in PRA in India under the direction of the Ministry of Agriculture and further in-house training is planned. With no financial statement it is assumed it ran to budget. The major in kind contribution to the development of the course provided largely by Canada should be recognised.

### **Lessons learnt regarding the follow-up questionnaire**

Follow-up surveys should be conducted within six months of an event and no more than one year. Normally a survey conducted at the time of the event ensures greater accuracy from the much higher level of return. However, the follow-up survey enables retrospective comment, assessment of the use participants have made of their experience and of any work done as a result of the workshop. Future follow-up surveys, if justified, should concentrate on these retrospective and consequential elements.

### **IPPC training material on pest risk analysis based on IPPC standards**

The package of material for the 5 day training course consists of 14 presentations that explain PRA concepts and practices and 14 group exercises to demonstrate these. The course material consists of three manuals (one each for participants, group exercises and instructors), PowerPoint presentations and speakers notes. They are freely available from the IPP or the IPPC Secretariat. The manuals etc. are in pdf and/or word formats for easy distribution and personalisation. The Participants’ Manual (some 150 pages) and the Speaker’s (more than 200 pages) are substantial documents.

It is an impressive package. In the April-May 2008 Niagara workshop follow-up questionnaire, 20 respondents provided initial feed-back. The main presentations are held in almost universal high regard. The difficulty of finding globally applicable practical examples for PRA was noted. Only one respondent conveyed any significant negative comments suggesting that it is somewhat Euro-centric and that greater efforts be made to make available completed PRAs and information for PRA. Other points of note are that translation should be a priority and that organisational structures and staffing for PRA are often limiting. Pest risk management holds similar resource issues.

The training package provides a comprehensive introductory course to PH risk analysis. The PRA exercises should be further developed so that they may be tailored to differing audiences. Also, to at least cover all the major IPPC standards, the course needs closer alignment with the recently revised ISPM 2 and new material is required on RNQPs (ISPM 21), LMOs (as per ISPM 11), and Bio-control agents etc. (ISPM 3). More specific aspects to consider include commodity PRAs, plants as pests, uncertainty and perhaps PRA structures/best practice. The IPPC PRA Steering Committee is fully aware of the need to further develop PRA training and has submitted to the STDF project proposal STDF 216.

As an introductory level PRA training course it is excellent and its authors and sponsors are to be congratulated. Through STDF 216 its utilisation should be enhanced.

### **Overall conclusions**

All parties are to be congratulated on the successful delivery to time and, as far as can be assessed, in budget of two workshops plus an introductory training course for use by others. The further development of IPPC PRA training should be supported.

| <b><u>CONTENTS</u></b>  | Page     |
|---|----------|
| About the author  | i        |
| EXECUTIVE SUMMARY   | ii       |
| Contents  | iv       |
| This evaluation.  | 1        |
| The projects.   | 1        |
| Materials and methods   | 1        |
| Section 1: STDF 89; International Plant Health Risk Analysis Workshop; Niagara Falls, Canada, 24-28 October 2005. | 2        |
| Background  | 2        |
| Summary of the project  | 2        |
| Outcome   | 3        |
| Questionnaires  | 3        |
| Impressions of the Niagara workshop.  | 4        |
| Use of the Niagara experience   | 4        |
| Comments and conclusions  | 5        |
| Lessons learnt regarding the follow-up questionnaires   | 5        |
| Section 2; STDF 120; Plant Health Risk Analysis Regional Workshop; Chennai, India, 5-9 March 2007.                | 7        |
| Background  | 7        |
| Summary of project  | 7        |
| Comments  | 7        |
| Chennai workshop follow-up questionnaire  | 8        |
| Conclusions   | 8        |
| Section 3. The IPPC “training material on pest risk analysis based on IPPC standards” – a preliminary evaluation  | 9        |
| Background  | 9        |
| Summary of the training material  | 9        |
| Niagara follow-up questionnaire   | 9        |
| Comments and conclusions  | 10       |
| OVERALL CONCLUSIONS ON SECTIONS 1 – 3 (STDF 89, 120 and the training material)                                    | 11       |
| Acknowledgements  | 11       |
| Annex I: Follow-up Questionnaire Report - International PRA Workshop; Niagara Falls, 24-28 October 2005.          | 19 pages |
| Annex II: Follow-up Questionnaire Report – Regional PH Risk Analysis Workshop; Chennai, India, 5-9 March 2007.    | 4 pages  |
| Annex III: List of documents  | 4 pages  |

- Appendix A: International Plant Health Risk Analysis Workshop - Workshop Results, (Nov. 2005). 5 pages  
- see separate file/document.
- Appendix B: A. Sissons, Wrap-up Report – Plant Health Pest Risk Analysis Training Course; 22 pages  
Chennai, India – Workshop Results; 23 April 2007. - see separate file/document.

## **THIS EVALUATION.**

1. This evaluation covers STDF 89 and STDF 120 together with the recently developed IPPC suit of “training material for Pest Risk Analysis (PRA) based on IPPC standards”.
2. STDF 89 concerned the holding of an international workshop on Plant Health Risk Analysis together with the development of training materials for PRA. STDF 120 consisted of a training project in risk analysis and procedures for the Government of India covering plant, animal and human health aspects determined by the IPPC, Codex Alimentarius and the OIE. However, please note that this evaluation only concerns the plant health (IPPC) elements of STDF 120.

## **The Projects.**

3. The objectives of STDF 89 were to hold an international workshop on PRA and to develop training materials for the conduct of PRA. The requesting body was the International Plant Protection Convention (IPPC). Collaboration was provided by the governments of Canada and the USA, the International Development and Research Centre, and an international steering committee of government experts from Canada, Chile, Germany, the Philippines, the UK and the USA. The international workshop was held at Niagara Falls, Canada on 24-28 October 2005.
4. STDF 120 was a request by India to provide training in PRA through three separate five-day workshops. Each workshop would deal with one of the plant, animal or human health sectors covered respectively by the IPPC, Codex Alimentarius and the OIE. This evaluation is restricted solely to the delivery of the plant health elements through the Regional PRA Workshop held at Chennai, India on 5-9 March 2007.
5. The two projects are being evaluated together because they both have, as a core component, the development of a package of training material for PRA under the IPPC. Certain training materials were prepared for Niagara Falls workshop. However, these were further developed for delivery at the Chennai workshop and have subsequently been edited, enhanced and published on the IPPC website (the International Phytosanitary Portal or IPP).
6. This evaluation thus consists of three elements:
  - the International PRA Workshop, Niagara Falls, Canada, 24-28 October 2005 (Section 1);
  - the Regional Workshop on Pest Risk Analysis, Chennai, India, 5-9 March 2007 (Section 2); and
  - a preliminary evaluation of the “training material on pest risk analysis based on IPPC standards” – see <https://www.ippc.int/id/186208?language=en> (Section 3).

## **Materials and methods**

7. The evaluation was conducted in three parts:- a desk study of the documents surrounding the two workshops; a desk study of the IPPC PRA training material documents; and the analysis of two follow-up questionnaires distributed by email to all participants of the two workshops. In addition, at the suggestion of the STDF Secretariat as an introduction to the projects, the evaluator attended as an observer the October 2007 meeting of the IPPC PRA Steering Committee held in York.
8. All documents consulted are listed in Annex III of this report [with copies submitted in a separate CD to the STDF Secretariat]. The analyses of the Niagara and Chennai follow-up questionnaires are attached in Annexes I and II respectively.
9. Email addresses for the participants of the two workshops were obtained from the lists of registered participants. Unfortunately for participants of both workshops, in many cases the listed email addresses are no longer recognised. For the Niagara workshop, the IPPC Secretariat provided some viable alternatives. For the Chennai workshop, Dr D D K Sharma kindly assisted in helping to forward the Chennai questionnaire to those participants without email or viable email addresses. Time constraints did not permit the use of postal communication.

SECTION 1: STDF 89

INTERNATIONAL PLANT HEALTH RISK ANALYSIS WORKSHOP;

NIAGARA FALLS, CANADA, 24-28 OCTOBER 2005.

**Background**

10. Pest risk analysis (PRA) provides the technical justification for phytosanitary regulation. Its necessity is established through Article 5 of the WTO Agreement on Sanitary and Phytosanitary Measures (WTO-SPS Agreement) and Articles II and VII of the International Plant Protection Convention (IPPC). It is the process of identifying and evaluating risks posed by pests of plants and plant products and of identifying appropriate measures. International standards on PRA have been established under the IPPC but they are technically demanding and complex in structure (three major standards plus other supporting and related standards).
11. Many countries are developing an understanding of PRA but there is no harmonised manner for conducting PRA worldwide. There are shortages in the capacity to conduct PRA and also gaps in the understanding of how PRA relates not just to IPPC standards but also to other international conventions (i.e. the SPS Agreement, the CBD and the Cartagena Protocol). At an international workshop on “Invasive Alien Species and the IPPC” held in Germany in September 2003, several PRA experts formed the view that all countries could benefit from the sharing of knowledge and experience.
12. Following that conference, in conjunction with the IPPC Secretariat, a group of experts drawn from a number of countries formulated the idea of establishing a steering committee to organise an international workshop that would bring together the latest ideas on PRA, would explore the intricacies of the IPPC standards on PRA (particularly ISPMs 2, 11 and 21), and would develop training materials that would be used in the workshop and subsequently by both workshop participants and others.

**Summary of the project**

13. A steering committee was established in January 2005 with members from Canada, Chile, the UK, the IPPC Secretariat, the Philippines, Ghana, Germany and the USA. The steering committee’s aim for the workshop was to focus on:
  - exploring methods and procedures for applying the IPPC's suite of PRA standards (ISPMs No. 2, 11 and 21) in a harmonized manner
  - building international PRA expertise and enhance communication
  - presenting national experiences on how PRAs are used in decision making
  - sharing tools for completing PRAs
  - continuing to strengthen international collaboration through the International Plant Health Risk Analysis Network.
14. The steering committee’s goals for the workshop were to:
  - enhance expertise and capacity to conduct PRA
  - harmonize implementation internationally of ISPMs for PRA
  - develop and disseminate of training materials for future use in national training in PRA.
15. It was anticipated that there would be approximately 100 participants, 50% from developing countries. Simultaneous translation in English and French would be available at the workshop with break-out documentation also available in both languages. All presentations and training documents would be posted on the IPP (the website of the IPPC).
16. The cash budget was set at US\$274,000 of which \$147,000 was provided by the STDF. In addition some \$110,000 would be provided “in kind”. Some 64% of the cash budget (\$175,000) was to cover travel and daily subsistence costs for developing country participants to the workshop. Of the remainder, 18% (\$50k) was for general operating expenses (rent for meeting rooms, translation and interpretation, etc.); 6% (\$17k)



for training materials for participants (production, binding, etc.); and 6% (\$15.6k) for a consultant to coordinate and organise the workshop. The remaining 6% was for FAO project support costs.

## Outcome

17. The international workshop was held at Niagara Falls, Canada on 24-28 October 2005. There were 134 national participants registered of whom 73 (54.5%) were from developing countries. In addition, there were 10 participants from international organisations.
18. At the workshop, 38 formal plenary presentations were delivered, of which seven were from developing country participants. In addition there were 45 poster presentations of which two were from developing countries. The number of developing country contributions is encouraging but is also indicative of the gap between developed and developing countries in the PRA area.
19. Topics covered by the plenary presentations and poster displays were hugely diverse. They ranged from international law and standards, through approaches to and models for PRA via the specifics of entry, environment and economic assessment, the challenges of LMOs and alien invasive species, through risk management and communication to information sources and training. This diversity of presentations is indicative of the complexity and breadth of the subject and the organisers are to be congratulated for the balance achieved.
20. A critical component of the workshop was the late afternoon and evening break-out sessions. Participants were divided on the basis of a preference for either French or English and then into groups of 15-20. They were challenged to debate a range of themes particularly from the practical perspective of PRA. The four themes for the break-out sessions were:
  - International approaches to pest risk analysis
  - Conducting pest risk assessments
  - Risk assessment beyond traditional plant quarantine
  - Risk management, communication and training.
21. Groups were run concurrently with each having an introductory dossier, an expert facilitator and a reporter to report back the conclusions. The conclusions have been made available along with the other workshop presentations and published on the IPP - see <https://www.ippc.int/id/58455?language=en>.
22. As is common practice with biological conferences and workshops, a field trip was organised by the Canadian hosts on the penultimate day to showcase Canadian experience on the eradication of the wood boring beetle *Anoplophora glabripennis* (Asian Longhorn Beetle). Such excursions provide participants with a welcome break from the confines of the lecture theatre, an opportunity to gain both a wider general knowledge of the host country and more specific understanding of one or more issues of interest to the host country and, finally, a valuable opportunity for more informal contact with other delegates.

## Questionnaires

23. Before leaving the workshop, participants were requested to complete an anonymous feed-back form and the summarised feed-back has been published on the IPP (see also Appendix A).
24. Since the workshop, those developing country participants supported by STDF were asked by the IPPC Secretariat to comment specifically on activities following the workshop. In addition, as a part of this evaluation, in April-May 2008, a follow-up questionnaire has been distributed to all workshop participants.
25. The feed-back questionnaire done at the workshop was completed by 100 of the participants with very positive results. The workshop organisers' summary of that feed-back is at Appendix A.
26. 85 to 95% of respondents found the facilities satisfactory or better with some 80% regarding the agenda "agreeable". As is common at most conferences, more time was suggested for discussion on the individual plenary presentations and also for the break-out sessions. Of the plenary sessions, with the exception of the session on LMOs, each was placed in the "most useful" category by more than 50% of the respondents. For LMOs, 23% regarded it as the least useful session with 11% regarding the international session as least useful indicating the specialised nature of these topics.

27. All of the break-out sessions were strongly supported with the exception of the final session on risk communication and training that was held on the last afternoon when many participants were leaving. 95% or more of respondents considered the training materials provided at the workshop and the personal contacts made would be useful or very useful.
28. Many participants provided individual comments, the vast majority of which were highly complimentary. Perhaps the only aspect of the workshop to call for some reappraisal was the field trip. Some participants considered it rather long, with too much time on the bus and not enough hands-on so, balanced with other requests for more time for discussion or in break-out sessions, such an element could perhaps be considered an optional add-on at future events.
29. The follow-up questionnaire completed in April-May 2008 as a part of this evaluation also strongly supported the original feed-back questionnaire (see Annex I). 36 respondents completed the questionnaire (23 from developing countries, 11 from developed countries and two from international organisations) which is rather encouraging as it was done more than two and a half years since the workshop was held.

Impressions of the Niagara workshop (follow-up questionnaire).

30. Respondents to the follow-up questionnaire continued to be highly complimentary as regards both the organisation and venue of the workshop with only two minor adverse comments linked to cost and available time. Respondents were overwhelmingly supportive of all sessions including the field trip which concentrated on just one issue, the Asian Longhorn Beetle. For all of the formal sessions there were virtually no adverse comments with both quality and relevance being scored strongly. The break-out sessions were particularly successful despite the complexity of their organisation. The field trip, being of such a specialist nature, elicited slightly more critical comments but these were tempered by the huge support and positive comments particularly from developing country participants. Of the subjects covered by the workshop, all were “particularly relevant” to at least some participants. It is thus clear that, overall, the organisers did a very good job.
31. In their final comments, respondents stressed the need for a continuing programme of such workshops with a strong plea is for more specialist discussion and/or training. They also suggested that future workshops should be more tailored to the needs of specific PRA communities and that they should more closely reflect the expertise and experience of potential participants. However, this may create funding problems particularly for developing countries and the possibility of further distorting the balance of expertise between countries.

Use of the Niagara experience (follow-up questionnaire).

32. As can be seen from Annex I, respondents to the follow-up questionnaire clearly made considerable use of the Niagara experience. Only the poster presentations scored on the low side. The platform presentations generated most use followed closely by the break-out sessions and personal contacts. The field trip was also much used despite the narrowness of the subject. In the long list practical examples provided, four aspects are noteworthy:- the extensive reporting of the workshop to other colleagues; the use in ‘local’ training programmes; the lack of funds for many developing countries to implement PRA systems; and, the value given to making contact with others in the PRA field. PRA analysts are often working either on their own or in very small teams so networking with others is critical especially as the discipline is still relatively new and developing rapidly in both concept and techniques
33. In addition to the two formal surveys, shortly after the workshop the IPPC Secretariat contacted the STDF supported developing country participants asking for comments on their subsequent associated activities. Of the 20 or so who responded all were strongly supportive of the workshop and reported various consequential activities such as reports to colleagues, seminars and training events similar to those set out in paragraph 32 above. The IPPC Secretariat is in the process of further analysing these comments.

## Comments and conclusions

34. With respect to the individual aims for the workshop and in the eyes of the participants, the workshop was clearly a huge success.
35. Although detailed figures have not been published, the workshop appears to have been delivered within budget. With more than 130 national participants the original brief was exceeded by a third. The 50% developing country participation was met. The vast majority of the individual aims set by the steering committee were clearly achieved, that is to focus on:
  - *exploring methods and procedures for applying the IPPC's suite of PRA standards (ISPMs No. 2, 11 and 21) in a harmonized manner*
  - *building international PRA expertise and enhance communication*
  - *presenting national experiences on how PRAs are used in decision making*
  - *sharing tools for completing PRAs*
  - *continuing to strengthen international collaboration through the International Plant Health Risk Analysis Network.*
36. Within these aims, only one aspect appears not to have been addressed, that is ISPM 21 and regulated non-quarantine pests (RNQPs). This is perhaps only to be expected. Generally the international community remains unclear over the concept. In particular, practicing pest risk analysts feel uncomfortable in applying methodologies that have been developed for quarantine situations. Even at the most senior levels in the most developed organisations there is confusion which the international community should be addressing.
37. Regarding the goals for the workshop then these were ambitious and if taken literally could be considered excessively so, namely to:
  - *enhance expertise and capacity to conduct PRA*
  - *harmonize implementation internationally of ISPMs for PRA*
  - *develop and disseminate of training materials for future use in national training in PRA.*
38. These goals should not be dismissed but, certainly with regard to the first two, clearly were aspirational rather than achievable within the confines of a single five day conference. That said this is an ongoing project. Following the workshop, a five-day PRA training course was produced and delivered to a regional PRA workshop in India (STDF 120; the Chennai workshop). This course has subsequently been further developed and published (see Section 3 of this evaluation). And finally a further project has been submitted for funding (STDF 216) that will examine capabilities and limitations for PRA particularly in developing countries, identify potential resources needed and develop proposals for sustainable training and support.
39. An aspect that must be taken further is the conclusions of the break-out sessions. The Niagara workshop was probably the greatest concentration of plant health risk analysts that has ever been achieved. These conclusions clearly identify issues that require further elucidation and it would be disappointing if they were lost in the cyberspace of the IPP.

## Lessons learnt regarding the follow-up questionnaires

40. Follow-up surveys should be conducted within six months of an event and no more than one year; two and a half years is too long.
41. Normally a survey conducted at the time of the event should suffice and is to be preferred as greater accuracy results from the much higher level of return.
42. However, the follow-up survey does enable retrospective comment (e.g. the suggestion that future workshops be more targeted to the experience and interests of the participants). Also it enables assessment of the use participants have made of their experience and of any work done as a result of the workshop (such

as the IPPC PRA training package). Future follow-up surveys, if justified, should concentrate on these retrospective and consequential elements.

SECTION 2; STDF 120;  
PLANT HEALTH RISK ANALYSIS REGIONAL WORKSHOP;  
CHENNAI, INDIA, 5-9 MARCH 2007.

### **Background**

43. Following a general workshop on WTO issues organised by the Indian Department of Commerce in May 2005, the Government of India requested assistance with risk analysis training covering the three conventions of the Codex Alimentarius, the OIE and the IPPC. A budget of US\$153,600 was proposed for STDF funding to cover the fees, per diem expenses and travelling costs for two international experts to deliver three 5-day training courses at three separate venues in India. The courses would be aimed at field level technical persons involved with various SPS measures relating to risk assessment and risk management. If possible the courses should include the issue of determining acceptable levels of risk and the identification and implementation of mitigation measures. Each workshop would involve 20-25 participants and would include participants from industry bodies, export promotion bodies and other stakeholders. It was envisaged that the project would commence in February or March 2006.

### **Summary of project**

44. In August 2006, the STDF invited experts from Canada to lead the plant health (IPPC) elements of the project. With the assistance of the Niagara workshop steering committee, experts from Canada prepared a five day training course for delivery in India in March 2007. Although some elements from the Niagara workshop break-out sessions could be utilised, in essence a complete introductory PRA training course had to be developed from scratch. From the outset it was understood that the focus should be on an introduction to plant health risk analysis and that ultimately it should be made available for global use. Equally it was accepted that in delivery the course would need to be adaptable and fine tuned to the needs of specific audiences.
45. All of the development work for the course was provided in kind, mainly by Canada but also with significant contributions from others. Delivery of the course in India was provided by three experts from Canada plus one from the UK with salaries paid by the respective governments and travel and subsistence by the STDF.
46. The course was held at the Regional Plant Quarantine Station, Chennai on 5-9 March 2007 with 23 participants, mostly from the plant quarantine service but also with participants from the National Bureau of Plant Genetic Resources, the Central IPM Centre, the Dr.Y.S.Parmar University, and the Namdhari Seeds Company.
47. In structure the 5-day course was a mixture of 15x20 minute formal lectures and 15x90 minute practical sessions of interactive group exercises and discussion groups. These sessions were supplemented by a course manual and an exercise manual for each participant. A common thread for the group exercises was completion of a PRA for *Thrips palmi* interspersed with other exercises on specific elements such as definitions and principles. Further details of the course are given under Section 3 below.

### **Comments**

48. At the end of each day and at the final wash-up session, participants completed short questionnaires. The daily questionnaires were aimed at identifying strengths and weaknesses of individual sessions to aid future development of the course. Responses have been analysed by the course presenters – see Appendix B.
49. It will be seen that feedback from the participants is extremely complimentary with virtually no negative comments. Expectations were fully met or exceeded. The course structure (length, balance of sessions, breaks, etc.) seemed about right with generally more time being requested rather than less, particularly for the exercises. The student's manual elicited particular praise. At the end of the course, generally participants considered they were sufficiently well trained to carry out PRAs, which is encouraging, but were less confident as to their ability to train others, which is understandable. All would recommend the course to

colleagues. Under “additional comments” the strong theme was requests for more examples of PRAs covering a wider range of organisms/situations and tailored to particular countries or circumstances.

Chennai workshop follow-up questionnaire (Annex II)

50. Unfortunately, only four out of the 21 participants responded to the follow-up questionnaire circulated by email in April 2008. A major issue was the availability of viable email addresses. But perhaps the low response also reflects the delay in its distribution, a cultural issue, or that questionnaires had already been completed at the time of the course. Email contact was a problem as many failed to be delivered and addresses were not available for some. Nevertheless the four replies that were received strongly support the above responses.
51. All four respondents marked the organisation and venue as “excellent” or “very good”. Similarly the lectures, manuals, exercises and overall balance were highly regarded and marked unanimously as “excellent” with the comments “Well balanced, particularly with respect to ‘learning by doing’” and “All topics and sessions were relevant”. Amongst others suggestions, more time was requested for the practical sessions and seed-borne diseases and weed risks were proposed for inclusion in the course. Further workshops were strongly urged with the emphasis on more specialised topics to build on established expertise and experience.
52. Since the Chennai workshop, all respondents have made substantial or considerable use of their experience gained with reports to colleagues, numerous PRAs completed and local training enhanced.

**Conclusions**

53. It is clear that the course was very well received, highly successful and has resulted in significant progress in PRA development in India. A core of 12-15 experts are now actively involved in PRA in India under the direction of the Ministry of Agriculture and further in-house training is planned (see DDK Sharma comment in *Report of the IPPC PRA Training Package – Steering Committee meeting, York, UK, October 10-12 October 2007.*)
54. No STDF financial statement for the course has been made available but it assumed it ran to budget. However, the major contribution for the development of the five-day course provided in kind largely by the Government of Canada should be recognised.

### SECTION 3.

#### THE IPPC “TRAINING MATERIAL ON PEST RISK ANALYSIS BASED ON IPPC STANDARDS” - A PRELIMINARY EVALUATION

##### **Background**

55. Because it has been developed outside the STDF funding package, it has been suggested that the IPP published training material should not be covered by this evaluation. However, a major element of both the Niagara PRA Workshop and the Chennai Workshop was the development of training materials for PH risk analysis. Only rudimentary material was developed for Niagara and this had to be comprehensively revised, expanded and reformatted for possible global use as an introductory level course for PRA. Chennai provided the ideal opportunity to pilot the course and finalise it for publication. The IPP published training material is both integral and consequential to the two STDF projects and to exclude it from this evaluation would result in a lack of balance to this report and perhaps uncalled for criticism.
56. Niagara was the catalyst for the development of the training material and Chennai the driver for its completion. None would have been achieved without the major in kind contribution of the Government of Canada and the individual contributions of members of the recently formalised IPPC PRA Steering Committee. The training material was finalised by the IPPC PRA Steering Committee at its meeting in York in October 2007 when they were formally handed over to the IPPC Secretariat. They were subsequently submitted to the IPPC Standards Committee as Explanatory Documents and were published on the IPP in January 2008.

##### **Summary of the training material**

57. As is set out on the IPP web page, “The training course is designed to take place over 5 days, and consists of 14 presentations that explain PRA concepts and practices and 14 group exercises to demonstrate these. The course materials consist of:
- a manual for participants taking the course
  - a manual containing the group exercises
  - PowerPoint presentations
  - a manual for instructors giving the course
  - speaker's notes for giving the presentations.
58. These materials are freely available for use by any interested party. They can be downloaded from the IPP or requested from the IPPC Secretariat ([ippc@fao.org](mailto:ippc@fao.org)). The manual for instructors and speaker’s notes for the presentations are available upon request to the Secretariat.”
59. It is an impressive package. All ‘lectures’ are provided as power point presentations. The manuals and speakers notes, plus suggested draft agenda, are available in both pdf and word formats to enable easy distribution, printing, personalisation and/or tailoring to the needs of individual audiences.
60. The manuals are substantial documents with the Participants’ Manual alone running to some 150 pages and the Speaker’s Notes to more than 200 pages.

##### Niagara follow-up questionnaire

61. In the April-May 2008 Niagara workshop follow-up questionnaire, participants were invited to comment on the published training material.
62. 20 respondents provided initial feed-back on the package. The main presentations of the training package are held in almost universal high regard with little adverse comment. As expected, there is some negativity surrounding the group exercises due to the difficulty of finding globally applicable practical examples for PRA, a difficult if not impossible task. The Instructors’ Manual and Speakers’ Notes are also seen in a very

positive light but since very few respondents had obtained copies it may be worthwhile for the IPPC Secretariat to review the policy for their release.

63. Specific comments and suggestions on the training material were also generally strongly supportive and positive. Only one respondent conveyed any significant negative comments. These were that the package is somewhat “Euro-centric” and that the authors should take account of the experience of those training in other hemispheres. Also that greater efforts be made by the global community to make available completed PRAs and information for PRA. Other points of note are that translation of the training package should be a priority and ‘training for trainers’ needs consideration. Finally it was pointed out that organisational structures and staffing for PRA are often limiting, particularly in developing countries where, with respect to PRA, administrations may not be aware of the resources required to meet their international obligations. Pest risk management holds similar resource issues.

### Comments and conclusions

64. The training package provides a comprehensive introductory course to PH risk analysis. From the outset the aim was to provide an introductory level training course and this has been achieved. No training course will ever meet all the needs and aspirations of either the student or the trainer. However the essential target to be met is “does it address the major elements of the IPPC PRA standards?” For the majority of students and trainers the answer will be a categorical “yes”.
65. There is however one significant area omitted from the programme and recognised as such, that is ISPM 21 and regulated non-quarantine pests (RNQPs). This was also noted in the Niagara questionnaire replies. As mentioned in Section 1, paragraph 36 of this evaluation, this is not surprising. However, even in this introductory course, ISPM 21 and RNQPs should be addressed rather more comprehensively than a single slide with the accompanying exclusion statement “*This course will not focus on RNQPs*”. Eventually a full module should be developed for RNQPs but more consensus at the global level is probably required before this can be achieved.
66. More guidance will also be needed, probably in the form of additional modules, for other elements of PRA. In particular, so as to at least cover the major IPPC standards, in addition to RNQPs, modules should address:
  - LMOs (as per ISPM 11);
  - Bio-control agents and other beneficial organisms (ISPM 3).
67. Perhaps more pressing than these specific elements is a need to more closely align some of the slides with the recently revised ISPM 2. This standard creates the framework within which sits the total coverage of PRA in the IPPC standards and is thus highly pertinent to this course. This is perhaps already in hand.
68. Other elements that are likely to need development or further elucidation in the not too distant future include:
  - commodity PRAs;
  - environmental risks (also as per ISPM 11);
  - plants as pests;
  - risk communication;
  - uncertainty;
  - and perhaps, PRA structures/best practice (even though this may be somewhat sensitive).
69. Finally, there should also be an active programme to develop or make available PRA exercises that are suitable for or may be easily tailored to the range of audiences (national or regional) to whom the course is likely to be delivered.
70. Of course, none of the above should be considered critical of the training material already established but rather encouragement for its future development.



71. The IPPC PRA Steering Committee is fully aware of the need to further develop the training course. It is also aware of the more urgent need to develop an IPPC PRA training programme and has submitted to the STDF a project proposal (STDF 216) with the objectives of:
- Identifying the capabilities and limitations for PRA, particularly in developing countries.
  - Identifying the resources needed, including potential sources of funding, to deliver training and technical support.
  - Developing proposals for sustainable PRA training and support programmes based on assessed need.
72. The IPPC PRA training material as an introductory level PRA training course is excellent, or as more succinctly expressed by a member of the IPPC SPTA “some of the best training material I have seen” (Larson, pers. com.). Its authors and sponsors are to be congratulated. Hopefully proposal STDF 216 will also find favour and its utilisation enhanced.

### **OVERALL CONCLUSIONS ON SECTIONS 1–3 (STDF 89, 120 and the training material)**

73. All parties are to be congratulated on the successful delivery to time and, as far as can be assessed, in budget of two workshops plus an introductory training course for use by others. The further development of IPPC PRA training should be supported as should the continuation of the IPPC PRA Steering Committee.

### **Acknowledgements**

74. I am grateful for the support and encouragement of Michael Roberts (STDF) and Brent Larson (IPPC Secretariat), for the help of Stacie Johnston with documentation and email addresses, for the assistance of Mr D D K Sharma with contacting certain Chennai participants and for the assistance and understanding of Alan MacLeod, Leslie Cree and other members of the IPPC PRA Steering Committee in conducting this evaluation.

**EVALUATION OF STDF PROJECT 89**

**INTERNATIONAL PRA WORKSHOP  
NIAGARA FALLS, CANADA, 24-28 OCTOBER 2005**

**FOLLOW-UP QUESTIONNAIRE**

**REPORT**

## **SUMMARY AND CONCLUSIONS**

The questionnaire had three aims; firstly to assess the workshop itself, secondly to determine what use participants had made of their experiences at the workshop, and thirdly to provide an initial opinion on the package of IPPC PRA training material that was developed following the workshop.

### **Questionnaire replies**

Out of 144 registered participants, 36 respondents completed the follow-up questionnaire (23 from developing countries, 11 from developed countries and two from international organisations). This level of response is rather encouraging as it is more than two and a half years since the workshop was held.

### **Impressions of the Niagara workshop**

As in the questionnaire done at the workshop, respondents continue to be highly complimentary as regards both the organisation and venue of the workshop with only two minor adverse comments linked to cost and available time.

Respondents were overwhelmingly supportive of all sessions including the field trip which concentrated on just one issue, the Asian Longhorn Beetle. For all of the formal sessions there were virtually no adverse comments (score 2 or less) with both quality and relevance being scored strongly. The break-out sessions were particularly successful despite the complexity of their organisation. The field trip, being of such a specialist nature, elicited slightly more critical comments but these are tempered by the huge support and positive comments particularly from developing country participants.

Of the subjects covered by the workshop, all were “particularly relevant” to at least some participants. Those considered by some as “not relevant” also appear in someone else’s “particularly relevant” or “more time” list. It is thus clear that, overall, the organisers did a very good job.

Regarding the subjects that respondents considered should have been included the strong plea is for more specialist discussion and/or training - points to note for any future workshop. Also in their final comments, respondents stressed the need for a continuing programme of such workshops. But they also suggest that future workshops should be more tailored to the needs of specific PRA communities and that they should more closely reflect the expertise and experience of potential participants. However funding participation at such events will be a problem particularly for developing countries and there is also the real possibility of further distorting the balance of expertise between countries.

### **Use of the Niagara experience**

Respondents feel they have made considerable use of the Niagara experience. Only the poster presentations scored on the low side. The platform presentations generated most use followed closely by the break-out sessions and personal contacts. Surprisingly, the field trip was also much used despite the narrowness of the subject. These findings are reflected in the long list practical examples provided, of which four aspects stand out. Firstly, the extensive reporting of the workshop to other colleagues; secondly, the use in ‘local’ training programmes; thirdly, the lack of funds for many developing countries to implement PRA systems; and fourthly, the value given to making contact with others in the PRA field. PRA analysts are often working either on their own or in very small teams so networking with others is critical especially as the discipline is still relatively new and developing rapidly in both concept and techniques

### **IPPC PRA Training Material**

20 respondents provided initial feed-back on the package. The main presentations of the training package are held in almost universal high regard with little adverse comment. As expected, there is some negativity surrounding the group exercises due to the difficulty of finding globally applicable practical examples for PRA,

a difficult if not impossible task. The Instructors' Manual and Speakers' Notes are also seen in a very positive light but since very few have obtained copies it may be worthwhile for the IPPC Secretariat to review the policy for their release.

Specific comments and suggestions on the training materials were also generally strongly supportive and positive. Only one respondent conveyed any significant negative comments. These were that the package is somewhat "Euro-centric" and that the authors should take account of the experience of those training in other hemispheres. Also that greater efforts be made by the global community to make available completed PRAs and information for PRA. Other points of note are that translation of the training package should be a priority and 'training for trainers' needs consideration. Finally it was pointed out that organisational structures and staffing for PRA are often limiting, particularly in developing countries where, with respect to PRA, administrations may not be aware of the resources required to meet their international obligations. Pest risk management holds similar resource issues.

### **Lessons learnt regarding the follow-up questionnaire**

Follow-up surveys should be conducted within six months of an event and no more than one year; two and a half years is too long.

Normally a survey conducted at the time of the event should suffice and is to be preferred as greater accuracy results from the much higher level of return.

However, the follow-up survey does enable retrospective comment (e.g. the suggestion that future workshops be more targeted to the experience and interests of the participants). Also it enables assessment of the use participants have made of their experience and of any work done as a result of the workshop (such as the IPPC PRA training package). Future follow-up surveys, if justified, should concentrate on these retrospective and consequential elements.

## About the questionnaire

The questionnaire was in five sections:

1. About the respondent
2. The Niagara workshop - the respondent's impressions
3. The Niagara workshop - the respondent's use of the experience gained at the workshop
4. The IPPC PRA Training Material developed after the workshop
5. Final comments

For most questions, respondents were invited to score their answers on a scale of 1 to 5, the scores in the following table giving examples of how scores for "overall impression" and "relevance" should be interpreted:

|                    | <b>5</b>      | <b>4</b>        | <b>3</b>           | <b>2</b>         | <b>1</b>     |
|--------------------|---------------|-----------------|--------------------|------------------|--------------|
| Overall impression | Excellent     | Very good       | Generally good     | Poor             | Very poor    |
| Relevance          | 100% relevant | Highly relevant | Generally relevant | Little relevance | No relevance |

For some questions, respondents were asked to provide examples of aspects being considered and were also invited to provide additional comments as considered appropriate.

The questionnaire was distributed by email to all registered participants on 02 April 2008 with the dead-line for replies set at 25 April. Reminders were sent on 28 April to those who had not responded. Completed questionnaires were received between 03 April and 15 May 2008.

## RESULTS

### 1. About the respondents

Out of 144 registered participants, 36 respondents completed the follow-up questionnaire. This level of response is rather encouraging as it is more than two and a half years since the workshop was held, a point commented upon by a number of those who replied to emails.

Of the 36 who completed the questionnaire, 23 respondents were from developing countries, 11 were from developed countries and two were from international organisations, thus providing a useful spread of expertise and experience. Only one respondent was from the private sector, a consultant from a developed country specialising in delivering training in developing countries.

The following table provides a further break-down of replies. It will be noted that of the 32 national respondents, 17 were from National Plant Protection Organisations (NPPOs) and nine from national government research institutes, reflecting the main audience of the workshop.

|               |                                 | Respondents                                   |    |
|---------------|---------------------------------|---|----|
| Public sector | Inter-governmental organisation | 2   |    |
|               | National government             | Administration                                | 1  |
|               |                                 | National Plant Protection Organisation (NPPO) | 17 |
|               |                                 | Government Research Institute                 | 9  |
|               |                                 | Not specified                                 | 4  |

|                   |  |    |
|-------------------|--|----|
|                   | State or provincial government             | 1  |
|                   | National non-government organisation (NGO) | 1  |
| Private sector    |  | 1  |
| Total respondents |  | 36 |

### 1.6 Sector of PRA (IPPC/CBD/CP).

Respondents were asked to indicate the international conventions which most apply to their involvement with PRA. As expected all 36 reported involvement with the IPPC but only seven reported that they had no involvement with either of the other two conventions (i.e. the CBD or Cartagena Protocol). 10 covered both the IPPC and CBD and 19 covered all three whilst none were involved just with the IPPC and Cartagena Protocol (CP).

It is of course recognised that these conventions overlap so respondents were invited to identify the main sector or balance of sectors in which they worked (using the scale where **5** = the majority of my work is in this sector, to **1** = none of my work is in this sector). From the table it will be noted that whilst most were heavily involved with the IPPC, many had considerable involvement with the CBD and, although to a lesser extent, the CP. A Sudan respondent commented that they are “carrying out PRA processing, thus integration of all conventions is very necessary”.

| Sector |   | majority<br><b>5</b> | <b>4</b> | <b>3</b> | little<br><b>2</b> | none<br><b>1</b> |
|--------|---|----------------------|----------|----------|--------------------|------------------|
| 1.6.1  | IPPC regarding (plant) pests                            | 28                   | 4        | 4        | 0                  | 0                |
| 1.6.2  | CBD particularly with respect to invasive alien species | 7                    | 9        | 6        | 7                  | 7                |
| 1.6.3  | Cartagena Protocol particularly with respect to LMOs    | 4                    | 0        | 9        | 6                  | 17               |

### 1.7 Involvement with PRA.

Respondents were asked to indicate what **type of involvement** they have with PRA and the **proportion** of their duties that is directly related to PRA (using the scale where **5** = the majority of my work is in this area, to **1** = none of my work is in this area). 28/36 respondents are significantly involved with risk assessment (i.e. scale 3 or more) and rather less (18/36) in risk management with a similar number (15/36) administering or acting upon PRAs. PRA development and the training of others also ranked highly in the work of respondents with 19 and 24 respectively being involved significantly with these endeavours. Three respondents recorded significant activity in the related areas of novel plant assessment for release, providing pest information for others, and the utilisation of risk analysis frameworks generally.

| Involvement with PRA |  | majority<br><b>5</b> | <b>4</b> | <b>3</b> | little<br><b>2</b> | none<br><b>1</b> |
|----------------------|--|----------------------|----------|----------|--------------------|------------------|
| 1.7.1                | Conduct risk assessments                   | 18                   | 6        | 4        | 1                  | 7                |
| 1.7.2                | Conduct risk management                    | 8                    | 6        | 4        | 10                 | 6                |
| 1.7.4                | Administer /use/ enact PRAs done by others | 6                    | 5        | 4        | 5                  | 9                |
| 1.7.5                | Develop PRA systems / protocols            | 6                    | 5        | 8        | 7                  | 6                |
| 1.7.6                | Train others in PRA                        | 8                    | 5        | 11       | 6                  | 4                |
| 1.7.7                | Other (please specify)                     | 1                    | --       | 2        | --                 | --               |

Finally respondents were invited to indicate the **number of years** they had been involved with PRA and 31 provided this data. Involvement ranges from one to more than 30 years, with the **average** being **7.4 years** (median period = 5 years) reflecting that this is a relatively new global discipline.

## 2. INTERNATIONAL PRA WORKSHOP, NIAGARA FALLS, 24-28 OCTOBER 2005

**Note.** The agenda, presentations, list of participants, etc for the workshop can be found at <https://www.ippc.int/id/58455?language=en>

### 2.1 Overall impression of workshop.

#### Organisation & venue

|       |              | excellent/<br>5 | 4  | 3 | 2 | very poor<br>1 |
|-------|--------------|-----------------|----|---|---|----------------|
| 2.1.1 | Organisation | 24              | 10 | 2 | 0 | 0              |
| 2.1.2 | Venue        | 20              | 12 | 1 | 2 | 0              |

#### Respondents' comments:

- The Workshop was arranged at high level and was of great value for Developing Countries
- On 2.1.1 (organisation): very good.
- On 2.1.1 (organisation): too many formal presentations. coffee breaks too short/ not enough time for breakouts.
- On 2.1.2 (venue): wonderful!
- On 2.1.2 (venue): was expensive.

As in the questionnaire done at the workshop, respondents continue to be highly complimentary as regards both the organisation and venue of the workshop with only two minor adverse comments linked to cost and available time (but see also the comment on interpretation under 2.1.3 below).

#### Presentations, break-out sessions & field trip

Respondents were invited to score and comment on “quality”, “relevance to PRA” and “relevance to you”. To simplify the table and because there was little difference in the scores allocated to the two aspects of relevance, these scores have been combined and averaged.

|       |                                     | excellent/<br>100% relevant<br>5 | 4    | 3 | 2   | very poor/<br>not relevant<br>1 |
|-------|-------------------------------------|----------------------------------|------|---|-----|---------------------------------|
| 2.1.3 | Platform presentations<br>- quality | 6                                | 26   | 2 | 1   | 0                               |
|       | - relevance                         | 20                               | 12.5 | 2 | 1.5 | 0                               |
| 2.1.4 | Poster presentations<br>- quality   | 6                                | 24   | 6 | 0   | 0                               |
|       | - relevance                         | 12                               | 19.5 | 2 | 1   | 0                               |

|       |                    |      |      |     |     |   |
|-------|--------------------|------|------|-----|-----|---|
| 2.1.5 | Break-out sessions | 9    | 20   | 5   | 0   | 0 |
|       | - quality          |      |      |     |     |   |
|       | - relevance        | 19   | 11.5 | 2.5 | 1   | 0 |
| 2.1.6 | Field trip*        | 16   | 9    | 4   | 2   | 1 |
|       | - quality          |      |      |     |     |   |
|       | - relevance        | 17.5 | 7.5  | 4.5 | 2.5 | 1 |

\*Field trip - Asian Longhorned Beetle (*Anoplophora glabripennis*)

#### Respondents' comments:

- On 2.1.3 (platform presentations): Souvent la traduction n'est pas satisfaisante. [Often, the translation is/was not satisfactory]
- On 2.1.3 (platform presentations): Variable – some better than others
- On 2.1.3 (platform presentations): Lors des séances de traductions en plénières, il y a nécessité de faire recours à de traducteurs expérimentés. Car lors de l'atelier de Niagara Falls, la traduction en français n'a pas été du tout à la hauteur pour certains traducteurs. [Simultaneous translation in plenary sessions should be done by experienced translators. At the Niagara workshop, the translation into French was not always of the highest quality.]
- On 2.1.5 (break-out sessions): More time spent in these sessions would have been better for countries with less experience in PRA / Not enough time / Too many things within short time.
- On 2.1.5 (break-out sessions): Important to exchange ideas and experiences
- On 2.1.5 (break-out sessions): Too little discussion of PRA problems/solutions – really just designed as training sessions
- On 2.1.5 (break-out sessions): Too disparate and anecdotal.
- On 2.1.5 (break-out sessions): Don't remember them [Evaluator - perhaps he was networking elsewhere!!]
- On 2.1.6 (field trip): Was a real problem and participants got firsthand knowledge about control of an outbreak
- On 2.1.6 (field trip): It is an exotic pest to Brazil, therefore, it was important to know the actions taken by the Canadian Government to contain the beetle
- On 2.1.6 (field trip): We saw avenues where trees had been – now removed – so was difficult to appreciate impact when compared with normal roads that didn't have trees in the first place! Shame we didn't get out of bus at such sites.
- On 2.1.6 (field trip): Well organised but would have been more instructive to have seen an ongoing outbreak not just the hole in the ground where trees had been removed. Great pity that there was not enough time to visit the plum pox outbreak

As in the questionnaire completed at the time of the workshop, respondents were overwhelmingly supportive of all sessions including the field trip which concentrated on the quarantine control of just one organism, the Asian Longhorn Beetle. The break-out sessions elicited most comments but few were negative indicating the huge success of these sessions despite the complexity involved in their organisation. Indeed for all of the formal sessions there were virtually no adverse comments (score 2 or less) with both quality and relevance being scored strongly. The comment regarding translation of the platform presentations will no doubt be noted but it was from just one participant and is a recurring difficulty in most conferences. Regarding the field trip, being of such a specialist nature, it is only to be expected there were slightly more critical comments but these are tempered by



the huge support and positive comments particularly from developing country participants (see also section 3.6 below - Use of the Niagara experience).

## 2.2. Comments on particular topics of the Workshop

Under this section of the questionnaire, respondents were invited to identify for each section upto three topics or areas of discussion that they considered: particularly relevant (2.2.1); not relevant (2.2.2); required greater time or emphasis (2.2.3); and, that should have been included but were not included (2.2.4). The compiled lists set out below are rather long but provide an insight into the interests and enthusiasms of the workshop participants.

### 2.2.1 Topics or areas considered particularly relevant:

- all presentations & discussion groups / Tous les points inscrits du programme ont été intéressants [All the registered points of the programme were interesting]
- Section I: International standards, conventions and agreements, [2 respondents] / International conventions (IPPC, CBD) / PRA and IPPC
- Internationally adopted standards for PRA,
- Role of IPPC and CBD
- Section II: Approaches to pest risk analysis, [3 respondents]
- Integrating invasive alien species prevention measures into international trade rules , [2 respondents]
- Invasive alien species and trade
- Phytosanitary risk analysis- the new Zealand experience
- Conducting Pest Risk Analysis: Ghana's experience and challenges
- Computer-automated pest risk assessments: Fantasy or reality?
- Regional cooperation in PRA
- Approaches to PRA risk management, Pest entry and establishment,
- Better understanding of different approaches to PRA, particularly predicting establishment and impact.
- Section III: PRA Models [3 respondents]
- Broad pest risk analysis: Concept and application [5 respondents]
- Session IV, Assessing pest entry and establishment [2 respondents]
- Semi-quantitative model for determining pest introduction frequency;
- Identifying the endangered area: Risk mapping for pest risk analysis [2 respondents]
- Prediction of the probability of pest establishment based on comparison of source and destination environmental conditions
- Session V, Assessing economic and environmental impacts.
- Use: of cost: benefit analysis to support risk management decisions in PRA
- Evaluation of economic and environmental impacts / Assessing environmental impact in PRA
- Session VI; Risks associated with living modified organisms. [3 respondents]
- Evaluation of LMOs as potential plant pests
- Risk assessment and management of living modified organisms under the Cartagena Protocol on Biosafety
- The Philippines experience with regulation and risk assessment of LMOs
- Analysis of environmental risks: How to assess and manage risks of invasive alien species harmful to plants [3 respondents]
- Integration of technology to assist the weed risk assessment process
- Invasive Alien Species and weed Risk Assessments

- Session VII; Risk management and risk communication
- Centres of Phytosanitary Excellence: Towards regionalized approaches to safeguarding and trade
- Safeguarding agricultural and environmental resources: Regional Centres of Phytosanitary Excellence
- Risk communication [2 respondents]
- Training / Training in PRA / Pest Risk Analysis training with particular reference to developing countries
  
- the breakout sessions, / Practical studies
- Approaches to Pest Risk Analysis / Conducting pest risk analysis.
- PRA systems used in the world / Comparing PRA of different Countries / Application and development of RA systems in various countries and sectors / experiences of developing countries in the PRA activity / Getting the perspective of NPPOs in developing countries / Comparison of PRA schemes
- Scoring systems
- The experience in the development of PRA of the countries was particularly important to have a better vision about the analyses.
- Risk mapping, / Climate modelling;
- Risk analysis for agricultural market access.
- Analysis of Environmental risk
- information exchange,
- International developments / International standards vs PRA
- How to prepare a PRA / present tools for completing PRAs / Models discussion
- Entry, / establishment, / impact / impact assessment

2.2.2 *Topics or areas considered were not relevant:*

- All topics/areas were relevant /very relevant/ In general all topics were relevant / None were particularly irrelevant
- Opening ceremony,
- international context (IPPC),
- Computer-automated pest risk assessments: Fantasy or reality?.
- Incorporating weighting into risk assessments: Can this make an overall risk rating more meaningful? [2 respondents]
- Section III: PRA models
- Too many details about model simulation for risk
- Use of cost:benefit analysis to inform risk management decisions in PRA
- A stochastic bioeconomic model to demonstrate the benefits of pest exclusion - The case of the varroa bee mite
- Economics and PRA
- LMOs [2 respondents], / Cartagena Protocol
- LMOs were not of particular interest to me, but relevant to others
- The work programme on invasive alien species under the convention of biological diversity
- Weed risk Analyses, / Invasive Alien Species
- Evaluating the efficacy and equivalence of phytosanitary risk reduction measures,

2.2.3 *Topics/areas that required greater time or emphasis:*

- None that I can recall
- All Breakout sessions
- Addressing all criteria in ISPM 11
- More discussion of links to IPPC and discussion of ISPMs beyond those specifically on PRAs
- 
- Practical examples of PRA
- Approaches to PRA (experiences in different countries)
- Pest Risk Analysis training with particular reference to developing countries
- Steps of PRA processing.
- Information Sources and Training / More PRA training
- Discussion of the problems in developing countries;
- exchange of PRA outcomes;
- Regional cooperation in PRA
- 
- Risks associated with LMOs / LMO`s lectures.
- System development for environmental risk assessment procedure for LMOs, biological control agents and invasive exotic species
- Evaluation of LMOs as potential plant pests
- LMO risk assessments under the IPPC and the Cartagena protocol on Biosafety.
- An environmental risk assessment procedure for plant-derived LMOs imported for processing into food, feed and fibre.
- 
- Invasive alien species. / IAS and trade
- Analysis of environmental risks: How to assess and manage risks of invasive alien species harmful to plants
- Integrating invasive alien species prevention measures into international trade rules
- Integrating technology to assist the weed risk assessment process
- 
- Incorporating weighting into risk assessment: Can this make an overall risk rating more meaningful?,
- Use of cost:benefit analysis to inform risk management decisions in PRA, [3 respondents]
- The topic about the risk management [2 respondents]
- Evaluating the efficacy and equivalence of phytosanitary risk reduction measures, [2 respondents]
- I would have liked more time to talk to users of the [CABI] Crop Protection Compendium
- Risk mapping,
- managing uncertainty and
- analysing management options
- Computer-aaaaaaaautomated pest risk assessments.
- quantitative PRA`s
- Protocols for assessing overall risk
- Risk communication [2 respondents]
- How to be consistent in PRA

2.2.4 *Topics/areas that should have been included that were not included*

- None/ No more/ Syllabus was more than enough accordance to time frame.
- Perhaps some discussion on some terms and definitions in the ISPMs and how different countries/areas interpret and address them
- How to conduct rapid PRAs for pests intercepted in commodities being imported

- Lack of PRA information on special commodity, i.e. **Seedlings**, which is one of hot issues in international trade.
- PRA in Forestry Sector
- Perhaps experiences about the equivalence of phytosanitary measures.
- Processing steps of PRA in details
- Risk Assessment for the introduction of living organisms. i.e. **Biological control agents**
- Pest surveillance
- Ensuring consistency,
- summarising risk and
- how to take climate change into account
- Networking of PRA outcomes;
- networking between IPPC and CBD
- Possibly more quantitative PRA's;
- Uncertainty / Recognising and dealing with uncertainty
- Risk management options.
- The role of policy makers in PRA
- PRA and international agricultural trade

From the long list of subjects that respondents considered particularly relevant (2.2.1) and it will be noted that essentially all were “particularly relevant” to at least some participants. There were very few respondents who considered any of the subjects “not relevant” (2.2.2) but those that are mentioned in general also appear in either section 2.2.1 or 2.2.3, i.e. in someone else’s “particularly relevant” or “more time” list. It is thus clear that, overall, the organisers did a very good job.

The most important list is perhaps 2.2.4 (subjects that should have been included). There is clearly a need for more specialist discussion and/or training and perhaps these could be considered for any future workshop.

### 2.3 Other comments/reflections on the Workshop

- Overall it was a very informative, useful and relevant conference. It was very well run.
- This workshop was a great opportunity for exchanging information abroad the experts from all parts of the World. As the event was 3 years ago and the situation with harmful organisms is changing much faster it will be good to have new meeting to see the current situation and fulfil the gaps of our own expertise.
- The work shop was well organised and covered all relevant areas relating to PRA
- I found that there was a short time but many number of topics
- The International PRA Workshop was very valuable since it provided very important information on PRA and also made me build confidence while conducting PRAs
- The mix of international participants and the approaches and constraints to PRA that they identified was very helpful.
- There have not been many opportunities to use the knowledge gained from the conference. This is a country and organizational problem. I am supposed to work with others as a team under with coordination from a Plant Protection system but coordination is poor. [A comment from an African country participant]
- We need more knowledge on environmental, economic and social impacts within PRAs
- After a big gathering international one it should move to a smaller regional or few smaller countries as this will help smaller countries to grasp the knowledge troughly

- Continuing of such workshops means continuing to extend experience which is of great value.
- Workshop needed every 5 years to update communication and possibly new developments
- Pour les prochaines formations, je suggère qu'on accorde assez du temps sur les visites de terrain et si possible sur les pratiques. [For the next workshop, I suggest that one makes enough the time for more local visits and if possible studies of practical examples]
- Si possible traduire les documents originaux dans toutes les langues officielles parlées par les participants, ce qui permettra de mieux les exploiter et les mettre en valeur. [If possible please translate the original documents into all the official languages of the participants to allow better understanding and participation.]
- Au regard de l'importance de l'analyse du risque pour le mouvement des végétaux et produits végétaux, il y a nécessité de multiplier ce genre de formation surtout pour les pays en voies de développement. [To promote the importance of risk analysis for the movement of plants and plant products, it is important to repeat this kind of workshop especially for developing countries.]
- *I suggest (in this particular workshop) that every participant should be given the opportunity and time to present the situation of the PRA in his/her country, implemented or not and why? Followed by discussions from all participants.*
- Difficult to remember exactly what went on two and a half years ago!
- A future workshop should be planned. The proportion of time/energy devoted to training and developing PRA practice needs to be carefully considered beforehand.
- Overall this was an excellent opportunity for bringing together PRA practioners / scientists from around the world to discuss and develop PRA. Unfortunately, I feel that perhaps some of those that attended were not the most suitable, i.e. they may have been senior officials who don't actually perform PRA. It was a missed chance for some countries.
- One point of concern was the knowledge difference on PRA between the participants. Although I recognize the fact that it's very important to train and educate the less knowledgeable, discussions were, perhaps, sometimes not interesting enough for the more PRA experienced participants.
- The occasion provided the first general opportunity for PRA analysts worldwide to discuss PRA work and procedures together. This is the overriding importance of the meeting. However, the meeting was an uneasy hybrid between training and development of PRA techniques. Since the emphasis was on training, this dominated the break-outs and the opportunity to tackle common problems was missed. Although it was excellent to bring together PRA analysts worldwide, there were few academics and those from other disciplines that could help provide an independent view and suggestions for other ways of tackling problems.

These points are very telling. Firstly they emphasise the need for a continuing programme of such workshops. But they also suggest that future workshops should be more tailored to the needs of specific PRA communities and that they should more closely reflect the expertise and experience of potential participants. "Every 5 years" is suggested, but it may be more beneficial to hold a greater number of smaller more targeted events. However funding participation at such events will be a problem particularly for developing countries and there is also the real possibility of further distorting the balance of expertise between countries.

### **3. Use of the "Niagara experience" following the Workshop**

An important aspect of a follow-up questionnaire is to identify the ensuing benefits of the event. Participants were thus invited to indicate what use, if any, they have made of the experience gained at the Workshop.

| Use of the “Niagara experience” |   | Substantial<br><b>5</b> | <b>4</b> | <b>3</b> | Little<br><b>2</b> | No use<br><b>1</b> |
|---------------------------------|---|-------------------------|----------|----------|--------------------|--------------------|
| 3.1                             | Platform (oral) presentations             | 9                       | 20       | 6        | 0                  | 0                  |
| 3.2                             | Poster presentations                      | 1                       | 6        | 14       | 7                  | 2                  |
| 3.3.1                           | Break-out sessions - discussion material  | 12                      | 9        | 7        | 4                  | 1                  |
| 3.3.2                           | Break-out sessions - conclusions          | 10                      | 8        | 10       | 3                  | 2                  |
| 3.4                             | Field trip experience                     | 7                       | 10       | 10       | 4                  | 1                  |
| 3.5                             | Personal contacts with other participants | 11                      | 15       | 8        | 1                  | 0                  |

The extent to which respondents feel they have made use of the Niagara experience is quite remarkable. Only the poster presentations scored on the low side with nearly a third of respondents making little or no use of them. The platform presentations were particularly successful followed closely by the break-out sessions and personal contacts. Surprisingly, the field trip was also highly successful in the use participants have made of such a narrow subject. These findings are reflected in the practical examples listed below (3.6).

### 3.6 Practical examples of the use participants have made of the “Niagara experience” since the workshop:

- A greater understanding and appreciation for PRA globally and related issues and experiences of the various countries.
- The Niagara experience was used to come up with a guideline for conducting PRA in Belize.
- The information provided is used as reference and will be used more for training material in the near future.
- Confidence gained in conducting PRA since the experience of other countries were shared and can be followed
- I have elaborated a report on the very good presentations and distributed it to all involved with PRA within Embrapa (Brazil).
- We followed the instructions of IPPC and delivered a course PRA in the poorest state of Brazil (but with great potential to agriculture). We also went back to the same PRA course attendants six months afterwards and checked the results of the training program. It was a success!
- The biggest use that I (a novel plant specialist) have gotten from the workshop materials has been in better understanding the perspective of my plant health colleagues as we proceed in exploring the similarities and differences between our risk assessment paradigms.
- I pay much more attention to assess environmental impact in PRA on importing fruits.
- I have trained NPPO officials of the El Salvador, Ecuador, and Venezuela, using my experience and expertise in this field as well as every data I knew from the PRA workshop.
- PRA of Asian Longhorn Beetle
- Made reports to my national organisation and
- have participated in conducting and preparing PRA documents of five commodities to access the USA market for fresh fruits and vegetables
- The material is use for presentations to various stakeholders.
- Undertaking PRA to facilitate the export of fruits and vegetables from Kenya to the USA. Kenya is now able to export a number of commodities to the US.

- Identifying areas that are endangered by fruit fly introduction in Kenya.
- I have trained my colleagues in the plant resources directorate on the PRA procedure and benefits using experience and material I gained during the Niagara Falls PRA training workshop
- Contact with Canadian people working on *Anoplophora* outbreaks.
- formation au profit de: [Training to the benefit of: ]
  - 15 inspecteurs phytosanitaires, [plant health inspectors]
  - 15 agents de la protection des végétaux chargés de la surveillance [agents of the plant protection service involved with surveillance]
  - 72 membres des comités de gestion de 24 banques d'intrants agricoles [members of the committees of management of 24 agricultural banks]
  - 20 opérateurs économiques (chargés de l'import – export des produits végétaux) [trade representatives (import – export of plant products).]]
- I have used the presentations to prepare the guidelines for PRAs in Peru, and to do some presentations about the theme.
- We are now using Canadian model in combination with the Australian way of conducting PRA
- Used the poster presentations for enhancing the [CABI] CPC
- Contact with counterparts.
- How to share PRAs and the various methods of doing them
- Assisted the PPO and the Subtropical Fruit Industry in South Africa with preparing PRA for subtropical crops.
- Also assisted in preparing comments on PRA received from importing countries.
- I put a detailed proposal for the processing of PRA in Sudan, depending mainly on the experience I gained from the workshop, but funding is always the main obstacle in Developing Countries.
- Received information via internet and packages via mail to assist PRA unit.
- The workshop Handbook and CD on Break out exercises has been very useful and regularly referenced.
- The PRA process was reviewed and changes made accordingly
- The field trip experience has helped in putting precautionary measures regarding importation of commodities associated with wood pallets of unknown origin as it could be a source of invasive alien pests.
- The key outcome has been the opportunity to engage with risk analysts worldwide. This led to the pest risk mapping workshop in Colorado last year which should be repeated later this year in Minnesota: <http://www.nappfast.org/ASPRM%20web/ASPRM%20Overview2.doc>
- I periodically consult the binder and outcome CD-ROM for reference, as well as for participant information.
- Although [our] PRAs followed guidelines of ISPM 11, workshop materials, particularly presentations and break out materials, were used to improve methodologies to conduct PRA in practice
- Comparing PRA schemes from other parts of the world with EPPPO scheme.
- Contacting experts on certain pests met at the workshop
- Using the New Zealand and Ghana examples in our training
- I have not really used any of the information that was prepared for the meeting [COMMENT – difficult to interpret this comment as “use” of platform presentations and break-out sessions were scored 4 and 5 respectively by this respondent (evaluator)]
- Networking with international professionals in your field
- We use the materials in the differenced discussion group methods in the examples of models to develop new model for *Prosopis spp.* in Sudan, now the model used for risk analysis and

management of this species in irrigated schemes (because it is classified as an invasive species in agricultural areas). Also this model used by companies of eradication as a tool of selection of a suitable method for suitable area according to the density of Mesquite.

- I have used breakout material and some information from presentations in PRA training events that I have subsequently been involved in.
- Used personal contacts for improvement of the CPC content/functionality, and promotion of CABI.
- The most useful has been personal contacts made with PRA workers around the world who I now regularly communicate with and exchange information/ data.

Four aspects stand out from the above list. Firstly, the extensive reporting of the workshop by participants to other colleagues; secondly, the adaptation of the information for use in 'local' training programmes; thirdly, the problem for many developing countries to implement PRA systems due to lack of funds; and fourthly, the value given to making contact with others in the PRA field. This latter is particularly important as PRA analysts are often working either on their own or in very small teams. The ability to network with others is critical especially as the discipline is still relatively new and developing rapidly in both concept and techniques.

#### 4. IPPC PRA Training Material

Following the Niagara Workshop, a package of training material has been developed and published on the IPPC website (the IPP) - see <https://www.ippc.int/id/186208?language=en>. The package has been developed by the IPPC PRA Steering Committee - see <https://www.ippc.int/id/191884?language=en>.

The IPP published training materials consists of:

- a suggested course agenda/time table;
- a manual for participants taking the course
- a manual containing group exercises
- a set of 14 power point presentations (lectures)
- a manual for instructors giving the course (available direct from the IPPC Secretariat)
- speakers' notes for those giving the presentations (available direct from the IPPC Secretariat).

The training materials have been designed as an **introductory level** training course on PRA. Its aims are to:

- provide participants with an understanding of the purpose of PRA
- develop skills to conduct PRA
- provide hands on experience in PRA through exercises
- provide international examples of PRA, and
- develop confidence in PRA.

The opportunity was taken to gather initial comments on this package of training material since the development of an IPPC PRA training programme is so fundamental to the STDF 89 and 120 projects. The package was only made available in January 2008 so anything other than a cursory evaluation would not be realistic.

##### 4.1 Awareness of the publication of IPPC PRA Training Material (IPPC PRA-TM)

20 out of 34 respondents stated that were aware of the availability of the IPPC PRA TM prior to receipt of the questionnaire (13 found it through the IPPC web site - the IPP, eight through personal contact and one each through the PHRA-L and the Official enquiry point). The use of the IPP is encouraging but to ensure maximum awareness more proactive procedures should be considered.



20 respondents provided initial feed-back on the package.

### 4.3 General impressions of the IPPC PRA-TM

Respondents were asked to provide no more than an indication of their first impressions of the training material. Also they were reminded that the course is set at the **introductory level** and not for in depth training in specialist areas of PRA.

| <b>Power point presentations</b> |                                  | excellent/<br>100% relevant<br><b>5</b> | <b>4</b> | <b>3</b> | <b>2</b> | very poor/<br>not relevant<br><b>1</b> |
|----------------------------------|----------------------------------|---|----------|----------|----------|--|
| 4.3.1                            | Overall impression               | 10                                      | 10       | 0        | 0        | 0                                      |
| 4.3.2                            | Range of subjects and topics     | 10                                      | 10       | 0        | 0        | 0                                      |
| 4.3.3                            | Balance of subjects and topics   | 7                                       | 9        | 4        | 1        | 0                                      |
| 4.3.4                            | Coverage of subjects and topics  | 7                                       | 10       | 2        | 0        | 0                                      |
| 4.3.5                            | Relevance of subjects and topics | 11                                      | 9        | 0        | 0        | 0                                      |

| <b>Participants' manual</b> |                                  | excellent/<br>100% relevant<br><b>5</b> | <b>4</b> | <b>3</b> | <b>2</b> | very poor/<br>not relevant<br><b>1</b> |
|-----------------------------|----------------------------------|---|----------|----------|----------|--|
| 4.3.1                       | Overall impression               | 10                                      | 8        | 1        | 0        | 0                                      |
| 4.3.2                       | Range of subjects and topics     | 8                                       | 10       | 1        | 0        | 0                                      |
| 4.3.3                       | Balance of subjects and topics   | 9                                       | 8        | 2        | 0        | 0                                      |
| 4.3.4                       | Coverage of subjects and topics  | 8                                       | 9        | 2        | 0        | 0                                      |
| 4.3.5                       | Relevance of subjects and topics | 10                                      | 9        | 0        | 0        | 0                                      |

#### Comments on the main presentations (Power point presentations & Participants' manual).

- Some presentations include comments on slides (e.g. the one on risk and probability): this is very useful because simple slides without comments might not be sufficiently self-explanatory.
- Maybe more information on risk management is needed in PPT presentation (but text in participants manual seems really complete)
- It is a shame that the participants' manual does not have a clickable table of content (the word version is clickable but not the PDF).

It is clear that the main presentations for this new set of training material are held in almost universal high regard with no significant adverse comments.

| <b>Group exercises/practical sessions</b> |  | excellent/<br>100% relevant<br><b>5</b> | <b>4</b> | <b>3</b> | <b>2</b> | very poor/<br>not relevant<br><b>1</b> |
|---|--|---|----------|----------|----------|--|
| 4.3.6                                     | Overall impression                                 | 7                                       | 10       | 2        | 0        | 1                                      |
| 4.3.7                                     | Range of subjects and topics                       | 7                                       | 11       | 1        | 1        | 0                                      |
| 4.3.8                                     | Balance of subjects and topics                     | 7                                       | 11       | 1        | 1        | 0                                      |
| 4.3.9                                     | Coverage of subjects and topics                    | 7                                       | 10       | 3        | 0        | 0                                      |
| 4.3.10                                    | Relevance of subjects and topics                   | 8                                       | 10       | 2        | 0        | 0                                      |
| 4.3.12                                    | Balance of formal presentations to group exercises | 7                                       | 12       | 1        | 0        | 0                                      |

### Comments on the Group exercises

- It is a shame that the exercise manual does not have a clickable table of content
- Too simple.
- PRA is best learnt by doing
- How easy is it to apply the long PRA task (*Thrips* on cut flowers as a risk to citrus in India) to other countries?

The scores indicate of a small degree of negativity regarding the group exercises but this is to be expected. Assembling practical examples that can be applied in all countries or regions and that will meet the expectations of all potential participants is impossible and it is unfortunate that some respondents do not recognise this. Practical exercises are usually the most challenging elements of any training programme and are particularly challenging for the PRA discipline.

### 4.4 Instructors' Manual and Speakers' Notes (for course instructors).

These are available from the IPPC Secretariat; they cannot be downloaded directly from the IPP so respondents were asked if they had yet obtained copies. Only four out of 12 who responded replied that they had done so. The scores and comments are very encouraging, albeit from a very small number of replies.

| <b>Instructors' Manual</b> |  | excellent/<br>100% relevant<br><b>5</b> | <b>4</b> | <b>3</b> | <b>2</b> | very poor/<br>not relevant<br><b>1</b> |
|----------------------------|--|---|----------|----------|----------|--|
| 4.4.3                      | Overall impression   | 1                                       | 2        | 1        | 0        | 0                                      |
| 4.4.4                      | Depth and relevance of the <u>teaching guidance</u> for instructors given in this manual | 1                                       | 2        | 1        | 0        | 0                                      |

| Speakers' Notes |   | excellent/<br>100% relevant |   |   |   | very poor/<br>not relevant |
|-----------------|---|-----------------------------|---|---|---|----------------------------|
|                 |   | 5                           | 4 | 3 | 2 | 1                          |
| 4.4.5           | Overall impression  | 1                           | 2 | 0 | 1 | 0                          |
| 4.4.6           | Depth, detail and relevance of the <u>technical guidance</u> for instructors given in the notes | 1                           | 1 | 2 | 0 | 0                          |

#### Comments on the Instructors' Manual and Speakers' Notes

- On the Instructors' manual: Very helpful and a confidence booster
- On the Speakers' Notes; Assumes some technical skill – but this is fair, after all would a non-skilled person give this type of training?
- On the Speakers' Notes: L'analyse du risque étant un thème d'actualité, il y a nécessité [Risk analysis being the current theme, these are a necessity]

As with other elements of the package, the Instructors' Manual and Speakers' Notes are seen in a very positive light. However, it is noted that very few have contacted the IPPC Secretariat for copies so it may be worthwhile for the Secretariat to review their current policy.

#### 4.7 Topics or subjects not covered by the IPPC PRA TM course that should be included

- None - for an introductory course the topics and subjects are very good otherwise it will become too complicated to understand
- There is always more that can be added
- I cannot think of any at the moment
- RNQPs are not covered; however, by including RNQPs time for other, perhaps more important, topics may have to be given up.
- List some good PRA report examples
- PRA in Forestry Sector (*Anoplophora* sp., *Bursaphelenchus* sp., *Phytophthora* sp. etc.)
- Information re the establishment/setting up of a PRA Unit, staffing, organisational structure and basic job description would be a useful guide to help countries establish their PRA Units.
- Pest surveillance
- Sampling protocols
- The section on pest risk management is only a few pages, yet it is the limiting factor in most developing countries where facilities etc are restricted. [Pest risk] Management is the most important issue in LDCs
- Quantitative PRA;
- Screening tool

These comments are helpful. Of particular note is the reference to organisational structures and staffing for PRA; these are often limiting and particularly so in developing countries where, with respect to PRA, administrations may not be aware of the resources required to meet their international obligations. Pest risk management holds similar resource issues. The RNQP comment is interesting as this is the subject of two IPPC standards (ISPMs 16 and 21) and will need to be included in the training scheme at some stage. Others in the same vein are beneficial organisms (ISPM 3) and LMOs (ISPM 11, part).

#### 4.8 Future utilisation of the IPPC PRA-TM

It was noted that PRA trainers will adapt the training material to their own circumstances. However, with respect to their future involvement in PRA training, respondents were asked to estimate to what extent they were likely to make use of the IPPC PRA-TM. 12 respondents completed this section.

|     |                                    | much use<br><b>5</b> | <b>4</b> | <b>3</b> | little use<br><b>2</b> | no use<br><b>1</b> |
|-----|------------------------------------|----------------------|----------|----------|------------------------|--------------------|
| 4.8 | Anticipated use of the IPPC PRA-TM | 5                    | 4        | 2        | 1                      | 0                  |

#### 4.8 Comment on anticipated use.

- I intend to use and modify the material for a training course in (Eastern Europe) later this year
- I will only use it for my own information, not for trainees. They need access to information that is relevant to their national situation so they can relate to the problems and have ownership of the exercises, not pre-determined examples that just exercise the mind!!

It is clear that substantial use will be made of this training package. The one negative comment is further expanded below.

#### Final/general comments on training material and the Niagara workshop:

- Please pass my thanks to all those involved with developing the PRA TM.
- Very good effort at coming with the training materials. Examples will be useful. Should notify NPPOs contact points of these training materials. Will spend some time to look at in depth. Yes tks [thanks].
- We are seeking to establish a PRA Unit before the end of the financial year March 2009. Therefore all this information will be very useful in the training of the staff for the new unit
- L'exploitation n'a été du tout facile pour nous francophones. [Utilisation is not at all easy for us French-speakers.]
- Translation of all the material to Portuguese will be helpful
- The IPPC PRA-TM should have been accompanied with a Training of Trainers program, for the benefit of Trainers and future trainees
- On the IPPC PRA-TM: I find that the presentation is very Eurocentric and assumes that the country participants in the training have all the resources needed to conduct a PRA. As someone who works exclusively in developing countries the presentation have background use but little else. The CABI methodology that I use is far more useful as it does not pre-suppose that the examples of the PRA sections are relevant to the persons being trained. I have experience of people using such pre-determined training protocols and they are very poor in impact. You need ownership of the exercise, but this is not possible with such a set of outlines. I will not use the FAO information.
- I think it was a disappointment that given the problems with the developing countries in accessing PRA information, that the workshop did not set up a scheme for networking PRA outcomes. This is one of the issues that are constantly being raised in the Aliens and Pestnet internet forums. People in developing countries need information; the opportunity at the meeting was for this networking to take place and for FAO to take the lead. The opportunity was lost, and the PRA workgroup has really folded since the meeting with little activity. If they were to set up an information network on PRA outcomes then it would be used, but political sensitivity to releasing the outcomes of PRAs is so strong that this will not be achieved. [Regarding the comment about the workgroup folding with little activity, this is an error; the IPPC PRA TM package required a lot of work and was developed after the workshop - evaluator]

Again these final comments are enlightening. Language is an issue and translation of the training package is no doubt being considered. 'Training for trainers' is being considered by the IPPC PRA Steering Committee. The other issues also need to be addressed. The principal authors of the training material are from Europe and North America so a north-west quarter bias is to be expected. Nevertheless the authors of the package have striven hard to globalise the programme, a point clearly appreciated by most respondents. But in its further development the authors do need to take account of the expertise of others, particularly those with extensive experience in developing countries and in other hemispheres. However, it is also critical for all trainers to tailor this, as with any other training package, to the specific needs of their audience and this is stressed in the IPPC material. As regards PRA information this is a difficult issue. However many countries and international organisations already publish their PRAs and other data on the internet so perhaps some form of simple coordination could be considered.

### **Lessons learnt regarding the follow-up questionnaire**

Two and a half years is too long a gap between the workshop and the survey; it results in irritation of those involved because they cannot remember certain details and it also perhaps leads to a slightly elevated opinion of the event. Six months would be most appropriate for a follow-up survey with a maximum delay of no more than one year.

With respect to the comments on the workshop itself, the results of the follow-up survey did not differ significantly from those obtained by the survey conducted at the time of the workshop. Indeed the latter was probably slightly more accurate as less detail would be lost. More importantly, the latter resulted in a much greater level of returned questionnaires, thus providing a more accurate result. Thus it is likely that for many events, surveys done at the time of the event will be the more effective and follow-up surveys probably not justified.

In this case, however, the follow-up survey enabled retrospective comment with a number of points being made that did not appear in the original survey (e.g. the suggestion that future workshops be more targeted to the experience and interests of the participants). This follow-up survey has also allowed assessment of the subsequent use participants have made of their attendance at the workshop. And finally it has permitted preliminary assessment of work done as a result of the workshop, namely the IPPC PRA training package. Future follow-up surveys, if justified, should concentrate on these retrospective and consequential elements.

A W Pemberton  
Plant Health Consultant  
York, UK.

May 2008.

**EVALUATION OF STDF PROJECT 120**

**PLANT HEALTH PEST RISK ANALYSIS TRAINING  
REGIONAL WORKSHOP ON PEST RISK ANALYSIS  
CHENNAI, INDIA 5-9 MARCH 2007**

**FOLLOW-UP QUESTIONNAIRE**

**REPORT**

Respondents were invited to score questions on a scale of 1 to 5, the scores in the following table gives examples of how scores for “overall impression” and “relevance” should have been interpreted:

|                    | <b>5</b>      | <b>4</b>        | <b>3</b>           | <b>2</b>         | <b>1</b>     |
|--------------------|---------------|-----------------|--------------------|------------------|--------------|
| Overall impression | Excellent     | Very good       | Generally good     | Poor             | Very poor    |
| Relevance          | 100% relevant | Highly relevant | Generally relevant | Little relevance | No relevance |

Respondents were also invited to provide additional comments as considered appropriate.

The questionnaire is in five sections:

1. About the respondent
2. The Chennai workshop - the respondent's impressions
3. The Chennai workshop - the respondent's use of the experience gained at the workshop
4. Further IPPC PRA training
5. Final comments

The questionnaire was distributed by email to all registered participants on 31 March 2008 either direct by email to those who had recorded their email address on the list of participants or by email to DDK Sharma with the request that it be forwarded to those without emails listed. The dead-line for replies set at 25 April. Reminders were sent on 30 April to those who had not responded. Completed questionnaires were received between 08 April and 09 May 2008.

## Number of respondents

Out of 21 participants, only four completed the follow-up questionnaire. This is disappointing and it is not clear why so few responded. Email contact was a significant problem as viable email addresses were only available for 12 although Dr D D K Sharma attempted to contact others through normal channels in India. There may also be a cultural or structure issue. Contact by post may have been more successful but time did not permit this luxury. It is also likely that because all participants had completed comprehensive questionnaires at the time of the workshop, further replies were considered not necessary.

### 1. About the respondents

All four respondents work for the NPPO, two as directors and two as senior scientists. Their time in PRA ranges from three to 10 years. They are all heavily involved with all aspects of PRA from the conduct of PRA through to development of systems and training of others although one, a specialist research entomologist, indicated that he did not act upon PRAs as that was the responsibility of others.

### 2.1 Overall impression of the workshop

All respondents marked the organisation of the workshop as “excellent” with the venue as “excellent” (3 replies) or “very good” (1 reply). Similarly the lectures, manuals, exercises and overall balance were highly regarded and marked unanimously as “excellent” with one commenting “Well balanced, particularly with respect to ‘learning by doing’” and another “All topics and sessions were relevant”.

### 2.2. Comments on particular topics of the Workshop

2.2.1 Topics/subjects considered particularly relevant to participants needs:

- The entire course was designed in a logical sequence and I did not find any superfluity in the course. All the topics were quite relevant.
- Scenario on the import nursery stock plants of water Hyacinth (*Eichhornia crassipes*)
- Scenario on the interception of Woolly cup Grass (*Eriochloa villosa*) seeds in millet seed import for planting.
- Group discussion sessions.
- Evaluation of previous PRA before starting PRA process
- Risk Rating
- Evaluation of options

2.2.2 Topics/subjects considered not relevant to participants:

- None.

2.2.3 Topics/subjects or sessions requiring greater time or emphasis:

- Sessions involving group exercises require more time.
- Modelling for risk assessment
- Pest Risk Management
- In Pest categorisation especially, determination of presence or absence of the pest in the PRA area , where limited information are available needs to be emphasised.

2.2.4 Topics/subjects or sessions that should have been included:

- Since it was a one week programme, it would not have been possible to include more material in the course
- Exercise on seed borne pest as example for pest categorization and entry and establishment potential

- Quantitative Pest Risk Assessment model needs to be included
- Practical demonstration on CLIMAX software etc., needs to be dealt
- Information on Authenticity of the publication on pest needs to be included
- Weed risk in bulk grain import

There were no additional comments on the workshop.

### 3. Use of the “Chennai experience” following the Workshop

Since the Chennai workshop, all respondents had made substantial or considerable use of their experience gained through the lectures and group exercises and the use of the workshop manuals. Use of contacts made at the workshop was more variable though still positive ranging from “useful” (box 3) to “substantial” (box 5).

Practical examples of the use made of the Chennai experience since the workshop:

- The training at Chennai gave clarity to the concept of PRA.
- I could use the training experience in conducting the qualitative PRA in India.
- Upon return from Chennai, I made a presentation in my Division summarising all the lectures to educate the other scientists about PRA.
- In June, India started negotiating with US regarding Wheat import and Chennai experience was very useful as the first draft PRA was developed by India which was examined by US and in September they came for negotiations where it was discussed.
- We also conducted a PRA for chickpea, peas and lentil import from US into India.
- With the knowledge and experience gained through the Chennai workshop, the Regional Plant Quarantine, Chennai team has completed 20 numbers of Import PRA to date.
- Carried out PRA for ornamental palms and ornamental plants and seeds from various countries. The participants manual was very useful to design the PRA process to identify QP.
- The “group exercise breakout session” concept was adopted while conducting in-service training for the plant quarantine officials.

### 4. Further PRA Training Workshops. The following topics/subjects or practical exercises were suggested to be included in future training workshops:

- A more advanced course especially for the already oriented group, with 80 % practical exercises of case material for which every thing has to be done by the trainee right from literature search to selecting management options.
- Basics about modelling etc.
- Quantitative Pest Risk Assessment model
- Practical demonstration on CLIMAX software etc.
- Development of Pest Database (Country specific)
- One exercise on the Quantitative PRA
- PRA for seed borne pathogens
- Analysis of Economic consequences and Commercial consequences
- Quantitative PRA
- Invasive species



## 5. Final comments

- PRA is not a static, it is a continuous process. The participants of PRA workshop conducted at various countries required to be invited for a co-ordination workshop, at least once in a year in a common place and they will be asked to present their technical contribution and further need must have to be discussed.
- The time frame for the training need to extended, preferable for a period of 15 days

## CONCLUSIONS

The workshop was clearly regarded by participants as highly successful. Although it is disappointing that only four participants returned the follow-up questionnaire, the returns are nevertheless helpful as they confirm the findings of the questionnaires completed at the workshop (see A. Sissons, *Wrap-up Report – Plant Health Pest Risk Analysis Training Course – Workshop Results; 23 April 2007*). In addition they provide an insight into the considerable use participants have made of the experience gained at the workshop. And they strongly support further workshops suggesting topics that need to be addressed. Whether the benefits of a follow-up survey justify the cost compared with an effective survey done at the time of an event is perhaps problematic, unless the main purpose is to be reflective and assess consequential effects.

A W Pemberton  
Plant Health Consultant  
York, UK.

May 2008.

## LIST OF DOCUMENTS.

WTO contract - Pemberton; External ex-post evaluation of STDF 89 and 120 and review of project preparation grant application STDF 216.

STDF 89 – Grant application form

STDF 120 – Grant application form.

STDF 216 – Grant application form.

STDF 216 – Grant application review (AWP 18/03/2008)

### International Plant Health Risk Analysis Workshop, Niagara Falls, Canada; 24-28 October 2005

Workshop Evaluation Form - Results

#### Workshop papers & documents

1. Agenda / Programme; 13 Oct 2005.

2. Abstracts of presentations / Résumés des présentations orales; 17 Feb 2006.

3. List of Participants / Liste des Participants; 20 Feb 2006.

Thomas Nickson, USA. A proposed process to initiate environmental risk assessment of LMOs intended for direct use as food and feed or for processing. 11 Nov 2005.

Simone Tuten, Australia. A semi-quantitative model to determine pest introduction frequency. 11 Nov 2005.

David Cook, Australia. A stochastic bioeconomic model to demonstrate the benefits of pest exclusion. 11 Nov 2005.

Maj De Poorter, New Zealand. Addressing biodiversity impacts in risk analysis: The need for information exchange on invasiveness. 11 Nov 2005.

Gritta Schrader, Germany. Analysis of environmental risks: How to assess and manage risks of invasive alien species harmful to plants? 15 Nov 2005.

Sayeda Khalil, Sudan. Assessing economic, environmental and social impacts in Sudan. 11 Nov 2005.

Ken Lakin, USA. Broad PRA: Concept and application. 11 Nov 2005.

Allan Auclair, USA. Computer-assisted PRA. 22 Nov 2005.

Mark Powell, USA. Evaluating the efficacy and equivalence of phytosanitary risk reduction measures. 11 Nov 2005.

Terri Dunahay, USA. Evaluation of LMOs as potential plant pests. 11 Nov 2005.

Paul Bartlett, United Kingdom. From recommendation to regulation: Experience of the EU Standing Committee on Plant Health (Harmful organisms). 11 Nov 2005.

Jack Vesper Suglo, Ghana. Ghana's experiences and challenges in PRA. 11 Nov 2005.

Richard Baker, United Kingdom. Identifying the endangered area: Risk mapping for PRA. 30 Nov 2005.

Lihong Zhu, New Zealand. Incorporating weighting into risk assessment: Can this make an overall risk rating more meaningful? 14 Nov 2005.

Larry Fowler and Barney Caton, USA. Integrating technology to assist the weed risk assessment process. 11 Nov 2005.

Peter Jenkins, USA. International law related to precautionary approaches to national regulation of plant imports. 15 Nov 2005.

Brent Larson, IPPC Secretariat. Internationally adopted standards for PRA. 11 Nov 2005.

Stas Burgiel, USA. Invasive alien species and trade. 11 Nov 2005.

- Ryan Hill and Jo Mulongoy, CBD Secretariat. Invasive alien species work programme under the CBD. 11 Nov 2005.
- Velia Arriagada, Chile. LMO risk assessment under the IPPC and Cartagena Protocol on Biosafety. 11 Nov 2005.
- Michael Ormsby, New Zealand. New Zealand's experience in phytosanitary risk analysis. 11 Nov 2005.
- Merle Palacpac, Philippines. Philippine experience with regulation and risk assessment of LMOs. 11 Nov 2005.
- Alison Wright and Paul Bartlett, United Kingdom. Plant health risk assessment of LMOs in the United Kingdom. 11 Nov 2005.
- Blake Ferguson, Canada. Plum pox virus in Canada. 15 Nov 2005.
- Faith Campbell, USA. PRA for introduced forest pests: Challenges arising from scientific uncertainty. 03 Jan 2006.
- Maria Oliveira, Brazil. PRA on invasive alien species that threaten Brazilian biological diversity. 15 Nov 2005.
- Robert Ikin, Australia. PRA training in least-developed countries. 11 Nov 2005.
- Erhard Dobsberger, Canada. Predicting the probability of pest establishment by comparing source and destination environments. 15 Nov 2005.
- Muriel Suffert, EPPO. Regional cooperation in PRA. 11 Nov 2005.
- Ryan Hill and Cyrie Sendashonga, CBD Secretariat. Risk assessment and risk management of LMOs under the Cartagena Protocol on Biosafety. 11 Nov 2005.
- Xu Yan, China. Risk assessment in China assisted by GIS. 05 Dec 2005.
- Velia Arriagada, Chile. Risk communication. 11 Nov 2005.
- Ron Sequeira and Christina Devorshak, USA. Safeguarding agricultural and environmental resources: Regional Centers of Phytosanitary Excellence. 11 Nov 2005.
- Michael Wood, Canada. Stakeholder consultation and risk communication in Canada. 11 Nov 2005.
- Christina Devorshak and Alison Neeley, USA. Training the next generation of risk analysts: Taking risk analysis training to the classroom. 11 Nov 2005
- Håkon Magnus, Norway. Transferring EPPO's pest risk assessment and pest risk management schemes to a web-enabled application. 11 Nov 2005.
- Alan MacLeod, United Kingdom. Use of cost:benefit analysis to inform risk management decisions in PRA. 11 Nov 2005.
- Break-out exercise 1: International approaches to PRA – Worksheet. 18 Nov 2005.
- Break-out exercise 1: International approaches to PRA - Results and summary. 05 Jan 2006.
- Break-out exercise 1: PRA example – Canada. 18 Oct 2005.
- Break-out exercise 1: PRA example – Chile. 18 Nov 2005.
- Break-out exercise 1: PRA example – EPPO. 18 Oct 2005.
- Break-out exercise 1: PRA example – Ghana. 18 Oct 2005.
- Break-out exercise 1: PRA example - New Zealand draft PRA process. 18 Oct 2005
- Break-out exercise 2: Conducting a pest risk assessment – Template. 18 Oct 2005.
- Break-out exercise 2: Conducting a pest risk assessment - Pest data sheet. 18 Oct 2005.
- Break-out exercise 2: Conducting a pest risk assessment - Results and summary. 01 Feb 2005.
- Break-out exercise 3: Beyond traditional risk assessment – Worksheet. 18 Nov 2005.
- Break-out exercise 3: Beyond traditional risk assessment - Results and summary. 04 Jan 2005.

Break-out exercise 4: Risk management, communication and information sources, training – Worksheet. 18 Nov 2005.

Break-out exercise 4: Risk management, communication and information sources, training - Results and summary. 09 Mar 2006.

Plant Health Risk Analysis Regional Workshop, Chennai, India: 5-9 March 2007.

WRAP-UP REPORT; Plant Health Pest Risk Analysis Training Course, Regional Workshop on Pest Risk Analysis, Chennai, India; Mar h 5-9, 2007. Andrea Sissons, 23 April 2007.

- Day 1 Lectures: IPPC and its Relationship to PRA  
Country- Specific Implementation of IPPC  
PRA-brief Overview  
Initiation  
Pest Categorization
- Day 2 Lectures: Risk and Probability  
Probability of Introduction (Entry)  
Probability of Introduction (Establishment)  
Probability of Spread
- Day 3 Lectures: Introduction to impacts and assessment of potential economic consequences  
Overall Assessment of Risk  
Uncertainty
- Day 4 Lectures: Risk Management  
Information Gathering
- Day 5 Lecture: Risk Communication
- Group Exercise #1: Terminology  
Group Exercise #2: Categorization  
Group Exercise #3.1: Probability of Entry  
Group Exercise #3.2: Probability of Establishment and Spread  
Group Exercise #3.3: Potential Economic Consequences  
Group exercise #3.4: Pest Risk Assessment Conclusions  
Group exercise #3.5: Peer review  
Group Exercise #3.6: Risk Management  
Group Exercise #3.7: Stakeholder Consultation  
Group Exercise #4: Impacts  
Group Exercise #5: Mitigation measures  
Group Exercise #6: Risk Management  
Group exercise #7: Risk Communication

IPPC Training Material on Pest Risk Analysis based on IPPC Standards (Dec 2007).

- IPPC pest risk analysis training course – Agenda  
IPPC pest risk analysis training course - Participant manual.  
IPPC pest risk analysis training course - Group exercises manual.  
Training course day 1 - Presentation A - Course introduction and overview of the IPPC.  
Training course day 1 - Presentation B - Overview of pest risk analysis.  
Training course day 1 - Presentation C - PRA stage 1: Initiation.

Training course day 1 - Presentation D - PRA stage 2: Pest risk assessment (Step 1: Pest categorization).

Training course day 2 - Presentation A - Risk and probability.

Training course day 2 - Presentation B - PRA stage 2: Pest risk assessment (Step 2: Probability of entry).

Training course day 2 - Presentation C - PRA stage 2: Pest risk assessment (Step 2: Probability of establishment).

Training course day 2 - Presentation D - PRA stage 2: Pest risk assessment (Step 2: Probability of spread).

Training course day 3 - Presentation A - PRA stage 2: Pest risk assessment (Step 3: Impacts and potential economic consequences).

Training course day 3 - Presentation B - PRA stage 2: Pest risk assessment (Step 4: Overall assessment of risk).

Training course day 3 - Presentation C - PRA stage 2: Pest risk assessment (Step 5: Uncertainty).

Training course day 4 - Presentation A - PRA stage 3: Pest risk management.

Training course day 4 - Presentation B - Information gathering.

Training course day 5 - Presentation A - Risk communication.

#### IPPC PRA Steering Committee.

Report of the meeting of the IPPC Pest Risk Analysis Steering Committee, October 2007, York, United Kingdom.

Terms of Reference for the IPPC Pest Risk Analysis Steering Committee. (Dec 2007)

Membership and contact information for the IPPC Pest Risk Analysis Steering Committee (Mar 2008).

SEE ATTACHED FILE/DOCUMENT (5 pages)



International Plant Health Risk Analysis Workshop  
Atelier international sur l'analyse des risques phytosanitaires

---

## **Workshop Evaluation**

SEE ATTACHED FILE/DOCUMENT (22 pages)

**WRAP-UP REPORT  
Plant Health Pest Risk Analysis Training Course**

**Regional Workshop on Pest Risk Analysis  
Chennai, India  
March 5-9, 2007**

**Prepared by: Andrea Sissons  
Canadian Food Inspection Agency  
3851 Fallowfield Road  
Nepean, Ontario Canada K2H 8P9**

**Phone 613-228-6698 X 4890  
Email [sissonsa@inspection.gc.ca](mailto:sissonsa@inspection.gc.ca)**

**Date of Report: 23 April 2007**

**WORKSHOP RESULTS**