

Invasive Alien Species and the International Plant Protection Convention Braunschweig, Germany 22-26 September 2003





Monday, 22 September 2003

The International Plant Protection Convention and invasive alien species

Ralf Lopian

Ministry of Agriculture and Forestry, P.O. Box 30, Mariankatu 23 FIN-00023 Government Helsinki, Finland Email: ralf.lopian@mmm.fi The Convention on Biological Diversity (CBD), which was adopted in 1992, incorporates provisions regarding alien species which threaten ecosystems, habitats and species. These provisions raised the attention of plant protection authorities and organizations on a national and international level. National Plant Protection Services as well as the Interim Commission on Phytosanitary Measures (ICPM), the governing body of the International Plant Protection Convention (IPPC), recognised that the aim of the CBD to prevent the introduction of alien species corresponds to the aim of the IPPC to prevent the introduction and spread of plant pests. Since 1999, the ICPM has been actively engaged in clarifying its role in regard to alien invasive species which are plant pests. In 2001, the Interim Commission (ICPM 3) defined that alien invasive species which are plant pests and that are not present (if present then limited distribution and under official control) should be considered quarantine pests and should be subjected to measures according to IPPC provisions. ICPM 3 also outlined that the provisions and standards of the IPPC are directly relevant to, or overlap with the Interim Guiding Principles (Now: Guiding Principles) of the CBD and that IPPC standards should be reviewed to ensure that they adequately address environmental risks of plant pests. In 2003, the Interim Commission (ICPM 5) adopted supplements to the International Standards on Phytosanitary Measures (ISPMs) No. 5 (Glossary of Phytosanitary Terms) and ISPM No. 11 (Pest Risk Analysis for Quarantine Pests) which elaborated on environmental considerations. In order to avoid conflicting developments within the IPPC and the CBD regarding alien invasive species and plant pests the Interim Commission decided that closer cooperation between the Secretariats of the IPPC and the CBD was needed and has resulted in a Memorandum of Understanding between the two Secretariats.

Overview of the CBD Secretariat's work programme on invasive alien species

Robert Höft

The objectives of the Convention on Biological Diversity (CBD) are the conservation and sustainable use of biological diversity and the fair and equitable sharing of benefits arising out of the utilization of genetic resources. Issues of common concern for the CBD and the International Plant Protection Convention include work on alien species (pursuant to CBD Article 8h) and on living modified organisms (pursuant to Articles 8g and 19, and the Cartagena Protocol on Biosafety). The Conference of the Parties to the CBD has emphasized the need for international cooperation on the threats posed by invasive alien species. COP has acknowledged the role of the International Plant Protection Convention in addressing invasive alien species, recommended that Parties consider ratifying the IPPC and invited collaboration on the elaboration of standard and agreements, by incorporating elements related to threats to biodiversity posed by alien species in standards such as the International Standards for Phytosanitary Measures (ISPMs). There has been close collaboration in the development of the supplement to ISPM#11 (pest risk analysis for living modified organisms), and there are opportunities for further collaboration such as on the revision of ISPM#3 (the code of conduct for the import and release of exotic biological control agents).

Some highlights of the CBD's programme of work on invasive alien species include:

 Adoption by the sixth meeting of the Conference of the Parties, through its decision VI/23, of 15 guiding principles for the prevention, introduction and mitigation of impacts of alien species that threaten ecosystems, habitats of species.

Abstracts		
Environmental Affairs Officer, CBD Secretariat, 393 Rue Saint-Jacques, Suite 300 Montréal, QC H2Y 1N9 Canada Email: robert.hoft@biodiv.org	 Their purpose is to provide Governments and organizations with guidance for developing effective strategies to minimize the spread and impact of invasive alien species and to assist Governments to combat invasive alien species as an integral component of conservation and economic development. A toolkit of best prevention and management practices prepared by the Global Invasive Species Programme, based on an analysis of more than 100 case studies, (UNEP/CBD/SBSTTA/6/INF/10). A guide to designing legal and institutional frameworks on alien invasive species (UNEP/CBD/SBSTTA/6/INF/8), prepared by IUCN-The World Conservation Union. In reviewing this information, the Conference of the Parties noted that there are certain gaps and inconsistencies in the international regulatory framework from the perspective of the threats of invasive alien species to biological diversity, and plans to consider this issue further at its seventh meeting in February 2004. Analysis of impacts of invasives on island ecosystems and the socio-economic impacts of invasive alien species. The CBD and IPPC also work in partnership on selected strategy elements of the Global Taxonomy Initiative, for which IPPC's Phytosanitary Capacity Evaluation (PCE) is an important tool to assess user needs. Furthermore the CBD collaborates on the International Phytosanitary Portal (IPP) and the "International Portal for Food Safety, Plant and Animal Health" which involves WTO, IPPC, OIE, Codex, and CBD, among other agencies. To formalize the collaboration between the CBD and the IPPC a Memorandum of Understanding is currently being drawn up. 	
Overview of the management of invasive alien species from the environmental perspective	The presentation outlines why IAS have become an international environmental issue and assesses how far existing regulatory frameworks provide for prevention and management of IAS as they affect biodiversity and ecosystem function. It summarises the global and regional instruments and tools already in place and identifies remaining gaps and constraints at both national and international levels. Lastly, it provides indicators for more effective implementation of existing systems, enhanced coordination between competent agencies and organisations and strengthening of national policy and legal frameworks.	
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EPPO's regional	Abstract not received.	
approach		
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European strategies on invasive alien species

Clare Shine

Consultant in Environmental Policy and Law, 37 rue Erlanger, 75016 Paris, France Email: clare.shine@noos.fr The Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention, 1979) provides a regional framework for implementing the Convention on Biological Diversity in Europe. It requires Parties, which include the European Community and 38 European States, to "strictly control the introduction of non-native species" (Article 11.2.b). Parties have taken a range of actions under this provision, including the adoption of general and species-specific recommendations, production of technical reports and establishment of an IAS Experts' Group. In 2000, work began on developing a draft European Strategy on Invasive Alien Species to promote a comprehensive and cross-sectoral approach to all aspects of IAS prevention and management, with a particular focus on transboundary and subregional cooperation for identified threats. The presentation outlines the background and content of the draft Strategy and highlights the main outstanding issues and complexities.

Analysis of the IPPC based EU Plant Health System vis-à-vis the CBD Guiding Principles

Jens Unger

Federal Biological Research Centre, Department of Plant Health, Messeweg 11/12, 38104 Braunschweig, Germany Email: j.g.unger@bba.de The phytosanitary system of the EU-Member States is being harmonized in particular since 1991 when the internal boarder controls have been abolished. Since then all measures taken at import or internally against the introduction and spread of organisms that are harmful to plants are laid down on the EU-level. These provisions in particular the directive 2000/29/EC and the structures in the member states are analysed with regard to the Guiding principles on Invasive Alien Species.

Most of the principles are already reflected in the EU Plant Health System. However the measures have been historically focused on unintentional introductions of crop pests; due to lack of appropriate scientific knowledge and resources, pests of wild flora and indirect pests have been less likely to be addressed and managed. Although in all states responsible official organisations are in place applying these measures, additional resources for the proper implementation of the Guiding Principles in particular for risk analysis and authorisation procedures for intentional imports are required. Pest risk analyses are needed for the whole area covered by the EC. They are already performed for unintentional introductions for that region, for intentional introductions they should - in the same way - address this region.

Methodology for assessing the legal regime for the phytosanitary control of invasive alien species

George Sarpong

This presentation, drawing on the Ghanaian experience, proffers a methodology that could be used by other countries in identifying and assessing their institutional and legislative frameworks for the control of Invasive Alien Species (IAS). This, *inter alia*, entails an examination of relevant global and regional instruments on biological diversity, an assessment of existing legislation in the light of these instruments, the adoption of the required legislation to fill the gaps, and the nature or form of legislation to be implemented.

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Harmonization of national regulations in China

Wang Chunlin

Ministry of Agriculture No. 20 Mai Zi Dian Street Chaoyang District Beijing, China Email: wangchunlin@agri.gov.cn This paper will explain the threat invasive alien species has to agriculture, forestry and ecosystems in China and demonstrate how the existing legislation and regulations in China were analyzed in regard to the IPPC framework. In addition, this paper will describe how China is preparing to upgrade the relative Plant Quarantine Regulations in order to harmonize them with international agreements and standards and detail the advancements made so far. Particular attention will be given to Phytosanitary regulations dealing with pest investigation, surveillance, information reporting, pest risk analysis and pest free areas.

India's new plant quarantine order

Amand Shah

Ministry of Agriculture, Government of India, Room No. 233, Krishi Bhawan, Rafi Marg, New Delhi 110001, India Email: amandshah@hotmail.com With a view to modernize, upgrade, standardize and enhance the somewhat outdated plant quarantine system, its capacities and the related legal/administrative framework, the Government of India has recently approved the notification of The New Plant Quarantine Order for the country, which is in harmony with the IPPC and the internationally accepted standards and the tenets of the WTO-SPS agreement. We have simultaneously taken a number of other supporting and managerial steps to improve to international standards, the entire gamut of the country's quarantine activity and phytosanitary border controls, including import and export inspections, on-field surveillance for pests/vectors, treatment standards and processes, and certification methodology.

We propose to make imports of plants/ plant materials into India subjected to Pest Risk Analysis to protect our crops from risk of introduction of exotic and alien pests and to make our export certification an assurance for freedom from Quarantine and Regulated pests/ vectors including alien species for importing countries. The New Order is a step forward in harmonizing the regulatory framework in the country with the WTO-SPS and the IPPC and accepted international standards.

The details and features of the initiatives, the rationale and methodology adopted, consultations, the process of synergizing the diverse views on the matter, and the likely benefits to India and the outside world are what constitute my presentation.

Tuesday, 23 September 2003

The IPPC and Pest Risk Analysis: Global harmonisation benefits the environment and

Pest risk analysis is one of the core elements for protecting plant health today, as reflected by the International Plant Protection Convention. The first international pest risk analysis standard became available in February 1996. Six years later, in April 2002 the international plant protection community has adopted a supplementary standard to allow for specific focus on environmental risk. This presentation will provide an overview of international agreements (including IPPC, WTO and CBD) on Pest Risk Analysis, the main elements of Pest Risk Analysis and new elements for dealing with environmental risk.

Bram De Hoop

plant biodiversity

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The EPPO PRA scheme and its adaptation to ISPM No. 11 (Rev. 1)

Gritta Schrader

Technical University and Plant Health Department of the BBA, Braunschweig, Germany Email: g.schrader@bba.de The European and Mediterranean Plant Protection Organisation (EPPO) provides a scheme to assess the risk of organisms that are harmful to plants. This scheme is designed as a user friendly questionnaire and is available since 1997. It is based on the first IPPC standard on PRA, ISPM No. 2, and addresses environmental risks of plant pests only generally. The development of the IPPC standard on PRA for quarantine pests (ISPM No. 11) and its supplement on the analysis of environmental risks as well as a new policy of EPPO, focussing now more detailed on risks of plant pests to biodiversity and human use necessitated the adaptation of the EPPO scheme in line with ISPM No. 11 (rev. 1). The talk will describe the structure of the EPPO scheme and how it is used. It will show the adaptations of the EPPO scheme to ISPM No. 11 (rev. 1), in particular to environmental aspects, and will give an outlook on how the EPPO scheme can be used.

Pest Risk Analysis: Tools, resources and key challenges

Alan MacLeod

Central Science Laboratory, Sand Hutton, York, N. Yorks, U.K., YO41 1L2 Email: r.baker@csl.gov.uk The ISPM (International Standard on Phytosanitary Measures) 11 on Pest Risk Analysis (PRA) for Quarantine Pests provides a clear description of the procedures to be followed in conducting PRAs but, apart from statements such as "climate modelling systems may be used", does not give further guidance on the tools and resources which can support the pest risk analyst. In this presentation, I will summarise the principal tools and resources available, give examples of how they can be used and highlight the principal challenges for the future.

Australia's approach to PRAs focussing on a review of the Weed Risk Assessment Tool

Paul Pheloung

Australia applies the principles of Pest Risk Analysis to the identification and management sanitary and phytosanitary (SPS) risks associated with new trade proposals, and where the need is identified, to review SPS risks to existing trade. One such trade activity is the intentional importation of exotic plant species not yet established in Australia. The Weed Risk Assessment (WRA) system is a decision support tool that is used specifically to assess the weed potential of such species. The WRA generates a score for a species based on its history as weed in other parts of the world, climatic suitability to Australia and biological attributes. The system has been adapted for a similar purpose in

Department of Agriculture, Fisheries and Forestry, GPO Box 858, Canberra ACT, 2601, Australia Email: paul.pheloung@affa.gov.au New Zealand and a modified version is under development for use in the Galapagos Islands.

Experiences and limitations with PRA in the Galapagos Islands

Helmuth Rogg

Charles Darwin Foundation for the Galapagos, Av. Charles Darwin, Charles Darwin Research Station, Puerto Ayora, Santa Cruz Island, Galapagos, Ecuador Email: hrogg@fcdarwin.org.ec More than 1000 plant and invertebrate species have been introduced into the Galapagos Archipelago since the arrival of human settlers 200 years ago. In 1991, the Charles Darwin Foundation (CDF) proposed the implementation of an Inspection and Quarantine System for the Galapagos Islands (SICGAL) to prevent further introductions. A pilot system was initiated in 1999, and, in 2001, the Ecuadorian Plant Protection Service (SESA) assumed responsibility for the SICGAL quarantine system with inspection points in the airports and ports of mainland Ecuador and Galapagos. Unfortunately, the success of the quarantine system has been limited by financial restraints, a lack of trained and qualified inspectors, and deficiencies in the execution of existing quarantine laws and regulations. In order to make SICGAL more efficient and effective, the CDF, together with other stakeholders, compiled a list of permitted import products based on criteria that addressed the dilemma of conserving the unique biodiversity of Galapagos while satisfying the demands of the growing human population and tourism industry. Recently, the CDF has been improving the methods for assessing the risks of introducing alien invertebrate or plant species. Together with Paul Pheloung, the CDF has adapted the Australian Weed Risk Analysis system to evaluate the risk of species not yet introduced becoming weeds (i.e. invade and cause harm) in Galapagos. The system was extended to evaluate the actual and potential weediness of introduced species already present in Galapagos. At the same time, the CDF has identified potential quarantine invertebrate pests and evaluated their risks of introduction using a simple scoring model. Based on the Australian WRA model, a PRA system is being adapted to score the 500 known introduced invertebrates.

Science and regulation: A Canadian approach to invasive alien species

Eric Allen and Lesley Cree

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Canada is attempting to address alien species issues through cooperation among government and private agencies, academic institutions and industry. For organisms of forestry concern, the Canadian Food Inspection Agency and the Canadian Forest Service work closely to develop science-based policies and regulations. Increasingly, pest risk assessments are jointly produced with each agency providing unique expertise. This partnership is proving to be very beneficial for both organizations. Canada is also pursuing scientific and regulatory collaboration with the international community through the IPPC and the International Forestry Quarantine Research Group.

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Assessing the environmental risks of invasive species using ISPM No. 11 (Rev. 1): Where to start

Soetikno Sastroutomo

CAB International, SE Asia Regional Centre, Glasshouse 2, Opposite block G, MARDI Complex, 43400 UPM Serdang, Selangor, Indonesia Email: s.soetikno@cabi.org Over the short history of the use of Pest Risk Analysis (PRA) as a harmonized approach to decision making in plant health, several relevant International Standards for Phytosanitary Measures (ISPMs) have been endorsed and more are in the pipeline for endorsement in the next two years. Primary among them is the ISPM 11 (revision 1), which clarifies the scope of coverage for National Plant Protection Organizations (NPPOs) to include unmanaged plant systems. With this suite of current and coming ISPMs to use and the historic emphasis on protecting agriculture from pests, many countries will be wondering when and how to apply the expanded guidance on environmental risks. Approaches for scoping environmental risks before applying the PRA process are discussed. This presentation also considers issues that arise in a PRA that addresses complicated issues, such as indirect or secondary effects from the introduction of the species in question.

Nature conservation and phytosanitary measures: The German federal perspective and activities on invasive alien species

Frank Klingenstein

German Federal Agency for Nature Conservation, Konstantinstr. 110, 53179 Bonn, Germany Email: neobiota@bfn.de Invasive alien species (IAS) are considered to be the second largest reason for biodiversity loss on a worldwide scale. Nevertheless, in Central Europe IAS are considered to be a lower risk compared to other regions. Of the 3.383 established species of higher plants of Germany, 228 are non-indigenous species that have been introduced with traditional land use practises before 1492 (Archaeophyts) and 363 are Neophyts (arrival after 1492). Other 625 species are at least locally established or occur casually. While 1/4 of the Archaeophyts are endangered, the all together 1000 Neophyts are not subject to nature conservation activities and about 30 of them have negative impacts on native biodiversity. For these cases criteria concerning risks for and impacts on biodiversity as well as options for action are suggested. Even though impacts on economy (including plant health) or others fields are in the responsibility of these stakeholders, strategies and regulation mechanisms should be developed and used cooperatively because of the overall character of problems caused by IAS. Six ongoing and intended projects on the national level are outlined: web-based information platforms (FloraWeb and NeoFlora) and Early Warning System, information networking with regional Nature Conservation Agencies, Certification System for native plants of known local proveniences, National Strategy on IAS.

Development of a German national strategy on invasive alien species

Christiane Hubo

Institut für Forstpolitik und Naturschutz, Büsgenweg 3, 37077 Göttingen, Germany Email: chubo@gwdg.de The German national strategy on IAS will be developed by an interdisciplinary research group of the University of Goettingen. The Research Centre for Nature Conservation Policy prepares the strategy by offering the scientific basics and a proposal for the strategy development. The strategy is based on the following elements: Overview of the problem of invasions in Germany, Definitions on Neobiota, Actors in Germany, Juridical situation in Germany, Comparison with national strategies of other countries, Approaches for problem solving and options for action in Germany, Not-native Origins in Germany, cost-benefit estimations, Cooperation and information exchange with neighbour states, Education and Public Relation. The key questions are, how the measures on IAS can be coordinated effectively, who the actors are and how they already cooperate, which national and international instruments we already have and what the need is to improve the administrative organisation as well as the juridical, economical and informational instruments.

Invasive alien species: Toward a national plan for Canada

Mark Hovorka

Environment Canada, 8th Floor, 351 St. Joseph Blvd., Gatineau, Quebec K1A 0H3, Canada Email: mark.hovorka@ec.gc.ca Canada is developing a national plan to address the threat of invasive alien species that responds to increasing concerns regarding the risks of invasive alien species to the environment, economy, and society. This presentation provides context and summarizes the process and progress-to-date on the development of a coordinated and integrated plan for Canada. It outlines the key elements of the emerging draft national plan, focusing on leadership and coordination issues and proposed actions for the strategic goals of prevention, early detection, rapid response, and management. The presentation also highlights early priorities that have been identified as components of an action plan to address invasive plants and invasive alien species that threaten plants.

Thursday, 25 September 2003

Translating Pest Risk Analysis into policy - The Canadian Food Inspection Agency approach

Greg Wolff

Canadian Food Inspection Agency, 59 Camelot Drive, Ottawa, Ontario K1A 0Y9 Canada Email: wolffg@inspection.gc.ca The Canadian Food Inspection Agency's (CFIA's) Plant Health Division fulfils CFIA's obligations as Canada's National Plant Protection Organization (NPPO), and is responsible for completion of stage three of pest risk analyses: Pest Risk Management. Effectively, therefore, the Plant Health Division is responsible for translating pest risk assessment data into policies implementing phytosanitary measures.

In many ways the term, 'Invasive Alien Species' is simply a new term for an old and well-understood problem, i.e., ('exotic') quarantine pests. Therefore, for invasive alien species that fall within the scope of the International Plant Protection Convention (IPPC), the CFIA will continue to assess and regulate these under existing legal authorities and policy frameworks, and using common tools (PRA, etc.). The CFIA's legal authority to regulate invasive alien species (quarantine pests) is provided by Canada's Plant Protection Act, Plant Protection Regulations and, to some extent, Canada's Seeds Act and Regulations.

As Canada is a contracting party to the IPPC, and as the CFIA (Plant Health Division) is Canada's NPPO, there are a number of obligations and principles which must be adhered to in developing pest risk management policies. Other international obligations, e.g., those under the World Trade Organization's Agreement on the Application of Sanitary and Phytosanitary Measures (the SPS Agreement), must also be observed. In addition, as stated in the SPS Agreement, measures should be based on international standards as appropriate and where they exist. The accompanying presentation on this subject provides background about the approach taken by the CFIA's Plant Health Division in translating pest risk assessments into applied phytosanitary measures, and summarizes the approach taken on some selected examples including Asian long-horned beetle, Emerald ash borer, and Sudden oak death.

Contingency planning

Paul Pheloung

Department of Agriculture, Fisheries and Forestry, GPO Box 858, Canberra ACT, 2601, Australia Email: paul.pheloung@affa.gov.au Effective planning for plant pest incursions in Australia is founded on monitoring and surveillance, to provide early warning of the arrival of new pests, diagnostics tools and expertise, to clearly identify the pest, information systems, that define the pest status of the country, and reporting arrangements to ensure knowledge of new incursions is acted on quickly. Contingency planning can be targeted for certain key pests that are clearly a threat and for which an entry pathway can be identified. A generic response framework is also essential to identify, assess and react to incursions as they occur. In Australia, the Australian Government is responsible for managing risks at the national borders while 7 States and Territories must work individually or together to deal with pest problems within the country. The Australian Government has a key role in coordinating the response to new pest incursions.

Contingency planning in the Netherlands

Maarten Steeghs

Plant Protection Service, P.O. Box 9102, 6700 HC, Wageningen, The Netherlands Email: m.h.c.g.steeghs@pd.agro.nl Contingency planning supports the management of possible risks in the future. Not only the direct risk for the natural environment but also the risks coming from the public opinion or for the trade and administration.

The risk management activities require political as well as executional support. The organization of the activities has to ascertain that the necessary support is obtained and other requirements are met. Requirements in personnel, training, equipment etc but also in scientific base, effectiveness and proportionality. Communication with the different stakeholders is essential during both, the process of contingency planning and the execution of the action. In the contingency plan the responsibilities, contact points, required resources and activities are described to allow for a swift action in a complex situation. Some examples of actions are given.

Phytosanitary capacity evaluation (PCE) methodology, results, and potentialities to be used as a cross disciplinary tool

PCE is the self needs assessment tool, endorsed by the ICPM to help member countries in the identification and prioritization of their needs related to the implementation of IPPC. The pooled results of the supervised application of the tool in over 35 countries are presented. PCE has also been applied as a cross disciplinary tool among the sanitary, phytosanitary and food safety areas in the Andean sub-region. Since the "quarantine pests" as defined by IPPC constitutes a subset of the Invasive Alien Species (IAS) concept, PCE results are already useful in relation with IAS; and PCE methodology has potential to be further developed to cover the countries needs in relation with the implementation of Article 8(h) of the CBD.

Felipe Canale

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Biological control in invasive species management: Experiences and lessons of using ISPM No. 3

Classical biological control is one of the important tools for the management of invasive species. This involves the introduction and release of natural enemies, usually from the invaders' area of origin. During the last decade, increasing concerns have been raised about the potential negative impact of introduced biological control agents on non-target organisms. This has highlighted the need to examine and guide the process of importation, and release of natural enemies. The Code of Conduct for the Import and Release of Exotic Biological Control Agents (ISPM3) is specifically concerned with this process. ISPM3 was endorsed by members of the Food and Agriculture Organization of the United Nations in 1995. This paper explores the experiences and lessons gained during the implementation of ISPM3 since its endorsement and implications for the future management of invasive species.

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Speed detection of pests in China

Ning Hong

Sichuan Agricultural Department, Plant Quarantine Station, No. 4 Wuhoci Street, Chengdu, Sichuan, 610041 China Email: Ning hong@hotmail.com This paper provides the present status of pest inspection operation and summarizes several speed detecting measures of invasive pests in China. It introduces the main speed detecting technique on citrus disease and estimate the foreground of using the speed detect kits. The situations of application to speed detection are not perfect in China. It is restricted by some shortage of technique, equipment, outlay and quantity.

Delivering phytosanitary programs in Kenya	Abstract not received.
Chagema Kedera	Kenya Plant Health Inspection Service, Box 49592, Nairobi, Kenya Email: kephis@nbnet.co.ke
Phytosanitary	Description of the organisation of the Plant Protection Service in Germany and the organisation in the federal state Northrhine-Westfalia. Discussion about the
programs in	pros and cons of the implementation of the Plant Protection program.
Germany	Presentation of the phytosanitary staff, qualifications, training, how they work,
·	equipment, inspection facilities, limited resources. Description of the
Reiner Schrage	phytosanitary priorities and programs in this part of Germany.
Plant Protection Service, Pflanzenschutzdienst, Siebengebirgststrasse 200, 53229 Bonn, Germany Email: reiner.schrage@lwk- rheinland.nrw.de	
Monitoring the	The introduction of the EU internal market (1993) required an increased harmonization of the plant health controls carried out in the EU. The European
delivery of	Commission established an office with the main task of verifying that adequate
phytosanitary	levels of control are in place in the Member States. This office carries out 15-
programs in the	20 plant health inspection missions per year. Organizational and practical aspects of this work will be addressed in the presentation.
European	aspects of this work will be addressed in the presentation.
Community (EU)	European Commission,
Lars Christoffersen	Food and Veterinary Office, Grange, Dunsany, Co. Meath, Ireland Email: lars.christoffersen@cec.eu.int

Working for Water

Jan Hendrik Venter

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The Working for Water project is an inter-departmental initiative that was initiated by the Department of Water Affairs and Forestry in 1995, to combat invading alien plants and to create employment. It integrated the Departments of Agriculture and Environmental affairs and Tourism. During the past, 750 tree species and 8000 herbaceous species were introduced into South Africa where, 1000 became naturalized and 200 species became invasive. The National Plant Protection Organization (NPPO), forms part of the program with regard to the importation of plants and plant products as well as the introduction and release of biological control organisms. Legislation by the Directorate Resource Management resulted into regulations that are understandable by the general public to categorize weed and invasive species. Huge success has been achieved in combating Australian Acacia spp. through an integrated approach using mechanical and chemical methods as well as biological control agents. Research forms an important part of the program, to increase the efficacy of the multi facet approach and is divided into several specific areas. The program created more than 40 000 jobs with 300 projects throughout the country, included and involved several other Governmental Departments, organizations and research institutes, achieved several international awards and is successfully removing alien invasive tree species across the country.

Cooperative initiative on invasive alien species on islands and implementing and developing an invasive alien species management program that satisfies both IPPC (SPS) requirements and

Abstract not received.

Maj De Poorter

CBD guidelines

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Tools to identify, report, and map unwanted species

John Pickering

University of Georgia, 717A Biological Sciences Building, Athens, GA 30602-2602, USA Email: pick@discoverlife.org For the first time in history, the Web enables us to help each other on a global scale. Discover Life <http://www.discoverlife.org provides tools for users to gather and share information in order to improve education, health, agriculture, economic development, and conservation throughout the world. Web users can identify species, map distributions, and database information to study and monitor nature. Discover Life served over 700,000 pages and images in August. It is being developed by a growing partnership of organizations. These include the Agricultural Research Council, South Africa, BioNet International, Lucid, University of Queensland, the Missouri Botanical Garden, the Polistes Foundation, SAFRINET, Smithsonian Tropical Research Institute, Panama, Sun Microsystems, Topozone.com, the University of Georgia, and the U. S. National Biological Information Infrastructure. Today's talk will focus on how Web-based identification, reporting, and mapping tools could help manage invasive species and improve plant protection.

BioNETINTERNATIONA L: the Global Network for Taxonomy – A regional approach to taxonomic capacity building for sustainable development

Richard Smith

BioNET International, Bakeham Lane, Egham, Surrey, TW20 9TY, U.K. Email: rsmith@bionet-intl.org BioNET-INTERNATIONAL is the Global Network for *capacity building* in taxonomy to meet sustainable development needs. The Global Network is comprised of regional LOOPs (Locally Organized and Operated Partnerships) of developing country institutions, supported by a consortium of developed country institutions. Over 120 countries are currently members of the Network; other countries are in the process of joining.

The purpose of the Global Network is, through South-South co-operation and North-South partnerships for institutional strengthening and human resource development, to enable developing countries to achieve self-reliance in the taxonomy needed to support development and poverty eradication programmes. LOOPs seek to respond to priority user-defined taxonomic needs, particularly those such as Invasive Alien Species that have been identified as priority issues by the Parties to the Convention on Biological Diversity (CBD) and other MEAs.

BioNET and its LOOPs have been formally recognized by the parties to the Convention on Biological Diversity for their supportive role in implementing the Global Taxonomy Initiative (GTI) of the Convention. In an example of this support to the GTI at the global level, BioNET have recently worked with UNESCO-MAB and the CBD and IPPC Secretariats co-organize a demand-driven taxonomic needs assessment and associated Action Plan.

The success of LOOPs is attributable to two key factors. The first is local ownership of the process, including governmental endorsement of the need for such a capacity building network whereby LOOP activities are identified and prioritized by member countries themselves. The second is a tried and tested mechanism whereby a lack of individual country capacity is overcome by pooling, optimizing and sharing regional capacity on a reciprocal basis between member countries. The Global Network therefore provides a very useful model for other capacity building initiatives in developing countries, as well as for North-South and South-South collaborative partnerships for capacity building. LOOPs are government-endorsed structures that are assist project partners with coordination and implementation in programmes where there is a significant emphasis on capacity building and taxonomy.

Identification of capacity-building needs in ASEANET for the management of invasive alien species

Soetikno Sastroutomo

ASEANET is the South East Asian Loop of BioNET-INTERNATIONAL, a Technical Co-operation Network for sustainable development through capacity building in taxonomy and related sciences. ASEANET was established after formal endorsement at the Ninth ASEAN Senior Officials Meeting on the Environment (ASOEN) in Singapore in September 1998. The ASEANET member countries are Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam.

Taxonomy, pest information and collections are vital, not only for quarantine/plant health but also for invasive alien species (IAS) management as ASEANET considers these are interlinked. The rationale here is that IAS are threats not only to biodiversity and the environment but also to sectors such as agriculture, forestry, livestock, aquaculture, wildlife and human health.

In 2001/2002, ASEANET, in collaboration with AFFA (Australia), conducted two ASEAN-wide surveys covering "Needs Assessment in Taxonomy and Biosystematics for Plant Pathogenic Organisms in SE Asia" & "Needs Assessment in Taxonomy of Arthropod Pests of Plants in Countries of South East Asia: Biosystematics, Collection and Information Management". In addition to this, in 2002/3, ASEANET in collaboration with CABI-SEARC also conducted a survey on Plant Health Capabilities in SE Asia. Key findings of these assessments that have relevance to IAS in agriculture

are

- 1) Many ASEAN countries have basic capacity problems in describing the health status (occurrence of pests and diseases including invasive species, whether native or exotic) of their agricultural and forestry industries, leading to serious constraints in the development of new export markets,
- 2) Most ASEAN countries lack human resources in taxonomy, from the curation and collections of pests (including invasive) to the identification of specific taxonomic groups:
- 3) Scientific reference collections of pests and pathogens, crucial components underpinning plant health capacity, are inadequate;
- 4) Local collections and taxonomic expertise are not networked for effective and efficient mobilization and utilization of valuable resources; and
- 5) Pest information databases are scattered and largely do not meet IPPC standards.

To address these gaps, ASEANET has followed up with a number of capacity-building initiatives. Two important activities in which ASEANET has key roles are:

- 1) organization of a National Workshop on Invasive Alien Species for Malaysia to develop a country status report and a national strategic plan, and
- 2) operation of the newly-created ASEAN Plant Health Cooperation Network, which has been endorsed by the ASEAN Ministers of Agriculture and Forestry in August 2003, to "harmonize and coordinate regional capacity-building in quarantine and plant health and to facilitate market access of ASEAN agricultural products to the international market."

Future thrusts and focus for ASEANET activities, as well as strategies for sustainability of the network programme will be presented and discussed.

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SADC regional initiative to improve phytosanitary services

Arundel Sakala

Within the SADC region several initiatives have taken place to develop and facilitate regional trade on the basis of the SADC trade protocol. An intensive compilation of national regulations was conducted through the SADC HUB based in Gaborone. The essence was to document these and review the national regulations noting the gaps that existed in the national regulations for them to conform to international standards and guidelines.

An annex to the SADC trade protocol was proposed to take recognition of the phytosanitary requirement within the region with a view to harmonize national regulations in due course. However, there is a strong need to translate these guidelines and requirements to the individuals that stay at borders applying the required regulations, standards, and norms on a daily basis. These requirements and guidelines can be provided in many forms e.g. manuals, keys, booklets, electronic, etc.

The Southern African Network of Bio-Net International (SAFRINET), that is an official project under the Directorate of the Food, Agriculture and Natural Resources (FARN), has taken up the initiative to begin linking the resources available in centres of excellence such as museums with specialists to the day-to-day functions of phytosanitary inspection and decision-making. The presence of border plant inspectors should be seen as an added advantage from where new organisms can be intercepted and sent for quick identification to remote specialists using the current technology. This in turn should promote the naming of species, documentation, non-conformity reporting, recognizing species and rapid access to information including exotic pest response.

The envisaged methodology is to begin with a Specific user group for example the phytosanitary service community using digital information to correctly identify organisms. Correct and precise identification of quarantine organisms will help greatly in avoiding disputes and the unnecessary destruction when information can be sought

on the treatment.

The envisaged methodology should take a new approach in enabling quarantine staff to identify organisms that have never have been seen before. This will require developing new tools that are computer aided and able to reach a wider service community. Computer aided input and retrieval system initiative will be a resource for national, regional and international users especially for phytosanitary use. This initiative has already been endorsed by the SADC FANR Directorate, however will require ready funds to make it functional. The current willing partners in digital tools are ETI, DAISY, Discover Life, EcoPort and ABIS.

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This initiative will directly work and supplement functions of international organizations such as the IPPC, USGS etc. The current mode of funding is through FANR core funding and competitive fund.

SAFRINET recognized that invasive species are a global problem

And SADC does not have the technical expertise of the developed world, but can be a partner in the process for our mutual benefit.

The use of electronic tools can adequately increase taxonomic expertise available to all since it is unlikely that such expertise will ever be available or sufficient at each, or even at the most, major SADC quarantine stations.

Friday, 26 September 2003		
The International	The IPPC Secretariat provides support for the International Plant Protection Convention (IPPC) and co-ordinates the annual work program	
Phytosanitary Portal	put in place by the Interim Commission for Phytosanitary Measures. The	
(www.ippc.int)	three key activities of the Secretariat are: Standard Setting, Technical	
	Assistance and Information Exchange.	
Brent Larson		
IPPC Secretariat, FAO of the UN, Room B627bis, Viale Delle Terme di Caracalla, Rome, Italy Email: brent.larson@fao.org	In order to facilitate the information exchange obligations laid out in the IPPC, the Secretariat adapted an existing web based environment to allow users to be able to both deposit and retrieve data from various sources. This web site was given the name "the International Phytosanitary Portal" (IPP). This presentation will review the information exchange obligations outlined in the IPPC, briefly discuss the current developments of the IPP and give an overview of the Secretariat's future plans to utilize the IPP Support Group to help develop this tool further. As the IPP continues to evolve every effort will be made to ensure that specific issues necessary for the management of IAS are addressed.	
European and	Abstract not received.	
Mediterranean Plant		
Protection		
Organizations'		
information exchange		
Ian Smith	EPPO 1 Rue Le Nôtre, 75016 Paris, France Email: hq@eppo.fr	

Couth Dasifia data	Not received.
South Pacific data	Not received.
sharing methods	University of Auckland (Tamaki),
	School of Geography and Environment Sciences,
Maj De Poorter	Private Bag 92019, Auckland, New Zealand
	Email: m.depoorter@auckland.ac.nz
NAPPO and exotic	The NAPPO Phytosanitary Alert System (PAS) website
pest information	(<u>http://www.pestalert.org</u>) was initiated in 2000 to increase awareness of exotic pest threats to North America by providing information on
P *** ********************************	significant emerging pest situations globally. Such knowledge allows
Woody Bailey	phytosanitary managers, researchers and inspectors alike to better focus
	resources based on pest threat. The PAS staff gleans pest data from
Centre for Plant Health Science and Technology, Plant Epidemiology	multiple sources including our own National Plant Protection Organization's (NPPO's), the web, electronic databases, news services,
and Risk Analysis Laboratory, 1017	other Regional PPO's and NPPO's, primary literature, and personal
Main Campus Drive, Suite 2500	international networks. In addition to providing these pest alerts, the PAS
Raleigh, NC 27606 U.S.A. Email:	is now addressing pest reporting obligations of its member countries (r.e.
woodward.d.bailey@aphis.usda.gov	ISPM No. 17).
Invasive alien species	As an intergovernmental organization whose member countries are
and the IPPC: The	contracting parties to IPPC, CABI is an 'appropriate international organization' (IPPC Article XX) to provide assistance in implementation
role of CABI	of the convention. CABI's role is to support and facilitate, with particular
Tole of CABI	emphasis on the needs of developing countries. Five areas of activity are
Roger Day	described. (1) Development and Publication of information products,
	including books, journals, bibliographic databases and the Crop Protection Compendium (CPC). The CPC now includes a Pest Risk Analysis module,
	and is being substantially expanded in response to demand for more
	information on invasive species and forest/timber pests. (2) Taxonomy
	including a plant health clinic for developing countries, development of
	multi-access keys (CABIkey), molecular detection methods, and training.
	(3) Networking through formal networks such as BioNET International, support to regional bodies such as COMESA, and coordination of regional
	and international projects (eg 'Removing Barriers to Invasive Plant
	Management in Africa'). (4) Information provision in support of standard
	setting. The study on the application of ISPM3, an overview of standard setting procedures in international bodies, and inputs to IPPC working
CAB International, Africa Regional	groups are recent examples. (5) The Global Invasive Species Programme
Centre, P.O. Box 633-00621,	(GISP). One of the working groups concerns global information exchange
I Nairobi Kenya	
Nairobi, Kenya Email: r.day@cabi.org	and GISP is an international focal point for the CBD clearing House Mechanism.