Activities of the NAPPO Invasive Species Panel

Ana Isabel González

CONABIO, México
Contents

- NAPPO
- Invasive species
- Invasive species panel
- Tasks of the panel
North American Plant Protection Organization (NAPPO)

- Regional Plant Protection Organization funded in 1976
- Cooperative Agreement between the USA, Canada and Mexico
- Led by an Executive Committee composed by the Heads of the National PPOs of the member countries
The objectives of NAPPO are to encourage cooperative efforts among the member countries to prevent the entry, establishment and spread of quarantine pests and to limit the economic impact of regulated non-quarantine pests while facilitating international trade in plants, plant products and other regulated articles; and to encourage and participate in similar hemispheric and global cooperative efforts.
Duties

- Develop and adopt standards to harmonize the phytosanitary measures of its members in order to facilitate the safe movement of plants, plant products and other regulated articles into and within the NAPPO region;
- Support the work of NAFTA’s Sanitary and Phytosanitary Measures Committee;
- Provide a dispute settlement mechanism for its member countries;
- Provide a forum for governments and industry groups to discuss phytosanitary issues;
- Harmonize plant pest management programs in the NAPPO region through the coordination of pest survey activities and through the development and use of standardized pest management techniques;
- Encourage training and development in support of NAPPO objectives
- Encourage research towards common NAPPO pest concerns.
• The work is developed through Technical Panels formed by experts representing the member countries.
• Panels can also include other experts as approved by the Executive Committee and Industry representatives.
• Examples of panels are:
  • Pest Risk Analysis
  • Biological control
  • Forestry
  • Potato
  • Grains
Impacts of invasive species

- Second cause of biodiversity loss in the world (Simberloff, 2000)
- Around 80% of endangered species worldwide could suffer losses caused by invasive species (Pimentel et al, 2005)
- Impacts include
  - Structure and composition changes in native populations and communities
  - Ecosystem degradation
  - Biodiversity loss
  - Loss of ecosystem services
  - Restricted access to water
  - Spread of pests and diseases affecting humans, plants and animals
  - Higher economic costs of productive activities (energy, agriculture, tourism, fisheries, etc.)
  - Social and cultural impacts on human communities

Cactus moth (*Cactoblastis cactorum*), high risk species for Mexico. Foto: Gerardo Moctezuma
### Examples of economic damages by IAS

<table>
<thead>
<tr>
<th>Group</th>
<th>Species</th>
<th>Annual cost ( Millions of USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plants</td>
<td>Aquatic weeds</td>
<td>110</td>
</tr>
<tr>
<td>Plants</td>
<td>Salicaria (<em>Lythrum salicaria</em>)</td>
<td>45</td>
</tr>
<tr>
<td>Mammals</td>
<td>Rats (<em>Rattus sp</em>)</td>
<td>19,000</td>
</tr>
<tr>
<td>Birds</td>
<td>Pigeon (<em>Columba livia</em>)</td>
<td>1,100</td>
</tr>
<tr>
<td>Reptiles</td>
<td>Brown tree snake*</td>
<td>12</td>
</tr>
<tr>
<td>Fish</td>
<td>138 species</td>
<td>5,400</td>
</tr>
<tr>
<td>Arthropods</td>
<td>Fire ant (<em>Solenopsis invicta</em>)</td>
<td>1,000</td>
</tr>
<tr>
<td>Arthropods</td>
<td>Gipsy Moth (<em>Lymantria dispar</em>)</td>
<td>11</td>
</tr>
<tr>
<td>Arthropods</td>
<td>Termite (<em>Coptotermes formosanus</em>)</td>
<td>1,000</td>
</tr>
<tr>
<td>Molluscs</td>
<td>Zebra Mussel (<em>Dreissena polymorpha</em>)</td>
<td>1,000</td>
</tr>
<tr>
<td>Microbes</td>
<td>Forest pathogens</td>
<td>2,100</td>
</tr>
</tbody>
</table>

*Refers to a single species

Source: Pimentel et al, 2004
IPPC/CDB Definitions

- **Alien species (AS):** Alien species: A species, subspecies or lower taxon, introduced outside its natural past or present distribution; includes any part, gametes, seeds, eggs, or propagules of such species that might survive and subsequently reproduce (CBD definition); An alien species (CBD) is an individual or population, at any life stage, or a viable part of an organism that is non-indigenous to an area and that has entered by human agency into the area (Explanation in IPPC context).

- **Invasive Alien species (IAS):** An alien species whose introduction and/or spread threaten biological diversity (CBD definition). An invasive alien species (CBD) is an alien species (CBD) that by its establishment or spread has become injurious to plants, or that by risk analysis (CBD) is shown to be potentially injurious to plants (Explanation in IPPC context).
Why is NAPPO concerned about invasive species?
Invasive Species Panel

- Formed in 2006.
- Charges include
  - Position paper describing the role of NAPPO in relation to AIS
  - RSPM 32 Pest Risk Assessment for Plants for Planting as Quarantine Pests
  - RSPM 31 Guidelines for Pathway Risk Analysis
  - Discussion paper on the role of Climate change in PRA
Position paper describing the role of NAPPO in relation to IS

- Revision of the invasive species issue in relation to NAPPO’s activities and scope
- Definitions
- Roles and activities of international and regional organizations
- Need for a Regional Approach to the IAS issue
- Review of current legislation and the scope of invasive plant and plant pest activities in the United States, Canada and Mexico
- Aquatic plants
Position statement in addressing IAS

- **NAPPO’s scope of plants to be protected** should include all plants, including marine and freshwater, vascular and non-vascular plants, including mosses, liverworts, hornworts, fungi and algae (brown, red, and green).

- **NAPPO’s scope of pests to protect plants and plant products from** should include direct and indirect effects of invertebrate pests and pathogens of plants, as well as plants in any of the categories identified above, if they meet the IPPC definition of a pest.
This standard provides guidance on assessing the risk of plants for planting as quarantine pests. It is to be used specifically for new plants proposed for first-time importation into a NAPPO member country.
RSPM No. 31
Guidelines for Pathway Risk Assessment (in progress)

- This standard will provide guidance on conducting pathway analyses to identify and evaluate phytosanitary risks associated with the particular pathways. This standard will complement existing ISPM’s (e.g. 11, 2) that address pest and commodity PRA’s.

Diagrams: Kriesch, 2007
**Current members of the IS Panel**

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ana Isabel Gonzalez (Chair)</td>
<td>Mexico</td>
</tr>
<tr>
<td>Patricia Koleff</td>
<td>Mexico</td>
</tr>
<tr>
<td>Alejandra Elizalde</td>
<td>Mexico</td>
</tr>
<tr>
<td>Claire Wilson</td>
<td>Canada</td>
</tr>
<tr>
<td>Diana Mooij</td>
<td>Canada</td>
</tr>
<tr>
<td>Ken Farr</td>
<td>Canada</td>
</tr>
<tr>
<td>Shirley Wager-Pagé</td>
<td>USA</td>
</tr>
<tr>
<td>Anthony Koop</td>
<td>USA</td>
</tr>
<tr>
<td>Heike Vibrans</td>
<td>Mexico NGO</td>
</tr>
<tr>
<td>Faith Campbell</td>
<td>USA-NGO</td>
</tr>
<tr>
<td>Rita Weerendenburg</td>
<td>Canada-Industry</td>
</tr>
<tr>
<td>Michel-Antoine Renaud</td>
<td>Canada-Industry</td>
</tr>
<tr>
<td>Jeff Hicks</td>
<td>Canada-Industry</td>
</tr>
<tr>
<td>Lin Schmale-Tate</td>
<td>USA-Industry</td>
</tr>
<tr>
<td>Claudia Lee</td>
<td>Mexico Industry</td>
</tr>
</tbody>
</table>
Thank you!
Gracias!
Merci!

For more information please contact

especiesinvasoras@conabio.gob.mx