

Questionnaire - Emerging Issues in Plant Health

Many factors inside and outside of phytosanitary system(s) directly and/or indirectly drive the emergence of plant health issues. Below is a short questionnaire to be completed and submitted to the regional workshop organizer before attendance at the upcoming IPPC Regional Workshop. In responding to question #1 please consider causes and the broad drivers that can impact on plant health issues as provided below.

1. Please identify what you believe to be the five most important emerging issues¹ related to plant health in the next two to five years in your country.

- Issue one
- Issue two
- Issue three
- Issue four
- Issue five

2. For each issue please provide a short explanation² (1 or 2 paragraphs)

- Issue one explanation
- Issue two explanation
- Issue three explanation
- Issue four explanation
- Issue five explanation

¹ In this context **emerging issues** are those that are new, unexpected, or can cause change in the status quo. With the word “issues” is meant as risks/challenges that might have an impact on plant health.

² In providing a **short explanation** of 1 -2 paragraphs please briefly explain: 1) why you selected that issue (i.e. on what basis - information/data, knowledge or assumption - you made that choice) and 2) the expected impacts of the issue (whether the impact would be sector-specific, affect only some sub-populations or countries/regions, in relation to plant health or trade etc.)

In the field of plant health emerging issues/risks might be caused by:

- a newly identified plant pest for which a significant probability of introduction and/or spread may occur;
- an unexpected, new or increased significant probability of introduction and/or spread of an already known plant pest (e.g. a new or a modified pathway of introduction, a change in agriculture or forestry practice, a change in pest/disease management or the cultivation of a new crop);
- a new or an increased susceptibility of host plants to a known plant pest or to an agent with altered virulence (including insensitivity to previously applied measures).

Drivers of emerging plant health issues at different scales:

- **Changes in plants, pests and their interactions** - are one of the major threats for plant health and biodiversity. Challenges are to understand what makes for a successful invader, find ways to predict which species are more likely to become plant pests and identify traits at species level (traits related to spread, reproduction, and host range) correlated with invasiveness, which could be used in a predictive approach.
- **Agriculture and forestry practices** – spread of plants and associated pests to new growing zones (exotic trees tree species in new zones, forests and urban areas), protected and/or open field cultivation effected by pests not previously known to have significant effect, adoption of grafting techniques, increased areas devoted to ornamental or minor crops, expansion of protected cultivation and associated pests, banning of some plant protection products and control methods (especially reduction in availability of soil disinfectants), human manipulation of domesticated plants, reducing genetic diversity and using resistant genotypes, contributing to the emergence of different diseases.
- **International trade of plants and plant products and movement of people** – a shift from local self-sufficiency towards a global commodity markets has resulted in increased diversity and volume of plants and plant products in international trade. Increased trade has contributed to the expansion of the geographical ranges of pests and movement to new ecological niches. Commodities imported from new exporting countries and/or new commodities imported from an established trading partner can be new sources of pest spread. Risk of introduction of pests with trade vessels, increased passenger movement and associated logistical and resourcing changes and modes of transport expanding the potential pathways of entry for pests of concern and internet trade.
- **Market access** – Exporting countries are challenged by the need for additional resources (human resources, infrastructure, monitoring and eradication programs, pest risk analysis (PRA), pest free areas (PFA) and areas of low pest prevalence (ALPP)) for meeting stringent import requirements and for establishing and maintaining phytosanitary systems and programmes. Shifts of operations for import clearance of

commodities at points of entry and export certification practices can become resource intensive and affect appropriate delivery of functions.

- **Plant protection chemicals** – the range of registered agricultural chemicals available for the control of pests is subject to a continuous change. In many cases, specific chemicals (e.g. disinfection products including fumigants e.g. methyl bromide) become unavailable. In some cases, alternative crop protection chemicals or control methods are either not available, are significantly more costly or require substantial new investment in development and infrastructure to achieve the desired outcome.
- **Food consumption patterns** – the demand for plants and plant products effecting trade, production and farm practices and land use can change.
- **Land use and landscape management** – protection of patrimony (for environmentally protected areas) and aesthetic value of properties in the public (e.g. parks) as well as for private use (residential, commercial spaces. Agro and environmental tourism, agro forestry and silviculture can also cause changes to plant health and biodiversity.
- **Climate change** - can have direct and indirect effects on plant health. Direct effects include pest spread and shorter lifecycles. As climate change is an extremely complex driver it might interact with other factors (e.g. cultivation practice, globalization of trade, land use changes, habitat destruction) and indirectly affect distribution, abundance and impact of pests. There is uncertainty in both climate change predictions and plant pest behavior.
- **Awareness and stakeholders involvement** - awareness on plant health issues at governmental and public level, awareness on the need for a national integrated phytosanitary system and for developing a national policy to facilitate safe trade, involvement of producers and communities (e.g. citizen science) in pest detection and avoiding pest incursions, sharing with industry the costs and responsibility for plant health.
- **Research and development coordination, collaboration and capacity building** – need for collaboration on regional and international level for implementation of the IPPC and its tools, defining implementation challenges, projects for implementation, including the IPPC surveillance pilot project, pest diagnosis expertise sharing, development of new technologies for pest detection/ diagnosis and surveillance, making available of new technologies to a wide range of stakeholders.
- **Conflicting priorities for resources and funding** – occur at the national level as the result of shortage of resources available to governments, as well as priorities given to food safety and veterinary fields at agencies/ authorities level.