RECENT CHALLENGES IN FIGHTING AGAINST TRANSBOUNDARY PLANT PESTS AND THE FAO STRATEGIES FOR HELPING FARMERS IN DEALING WITH THOSE PESTS

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ABSTRACT

Transboundary plant pests (TPPs) are those migratory insects, plant diseases and weeds that can spread to several countries and reach epidemic proportions, cause significant losses to farmers, threaten food security, and damage the local biodiversity and environment. There are three major pathways for the spread of TPPs, such as environmental forces (Fall armyworm), international trade (Fruit flies), and tourists & migrations (Banana fusarium). In recent decades, TPPs are becoming more and more important than ever before due to global movement of agriculture goods, global movement of tourists and migration, and global change of climate. Among the most important TPPs, five of them are briefed in this presentation. Locust plague is one of the three major natural disasters in history (Drought, Flood and Locust plague). Among all kinds of locusts, desert locust (Schistocerca gregaria) is the most destructive, with a wide range of host plants and distribution in over 50 countries, mainly in Africa and Central Asia.Fall Armyworm, which is native to the Americas but now spreads to 65 countries in Africa (47), Near East (3) and Asia (15), is the most recent emerging TPP. It feeds on more than 80 crop species, but mostly prefers maize. Wheat rust is a recurrent problem with its epidemics amplified with increased rains, seriously threatening wheat in all regions. It is distributed worldwide wherever wheat is grown (America, Africa, Europe, Asia and Australia). Banana Fusarium wilt, caused by Fusarium oxysporum, is an important disease of banana in almost all banana-producing countries of the world. Currently, a new strain of the fungus, Tropical Race 4 (TR4), is posing the most serious threat to banana production in Asia, Africa, Near East, Latin America and the Caribbean (most recently in Colombia). Bacterium Xylella fastidiosa, a vector-borne pest that can lead to the death of the infected plants, is a threat to agriculture, the environment and the economy. It occurs primarily in America, but has recently appeared in many countries such as Italy, France, Spain, Iran and China. Xylella has over 500 host plants, mainly olive, grapevine, citrus and coffee. The first major impact of TPPs is on food security. Globally annual crop losses due to plant pests and diseases are estimated to be 20-40%, while those due to the TPPs are frequently even worse. For example, desert locust outbreak in West Africa for 2003-2005 resulted 80-100% of losses of cereal, 85–90% of legume, and 33–85% of pasture. The second major impact of TPPs is on biodiversity. All TPPs, in particular invasive alien species, are very destructive to biodiversity. For instance, Xylella is a major threat to forest biodiversity in many regions of Europe, and water hyacinth (Eichhornia crassipes), one of the most destructive invasive alien aquatic plant pests in the world, is a strong killer of aquatic biodiversity. The third major impact of TPPs is on farmers' livelihood. All TPPs often cause significant reduction in crop yield and quality, imposing a great effect on farmers' livelihood. Thus, 400 million people in the world depending on banana for staple food, jobs and livelihoods are under threat from Banana Fusarium wilt, especially the Tropical Race 4 (TR4) strain. The fourth major impact of TPPs is on safe trade. Transboundary plant quarantine pests, such as fruit-flies and Cassava virus diseases, are major barriers to safe trade, often causing the closing of trade borders. The FAO, in cooperation with the IPPC, is playing a very important role in helping member countries and farmers in their fight against the TPPs in the following five key areas:

- i) Coordination, such as legislation and policy advice, scientific guidance, project development and management, resource mobilization, and information sharing
- ii) Prevention, such as prevention of introduction, prevention of spread, and prevention of damage
- iii) Early warning and quick response, such as increasing the capacity to predict the occurrence or spread of TPPs, and to make quick reactive responses to contain or eliminate their risk
- iv) Monitoring and sustainable management, such as strengthening/refreshing of technical capacities, preparedness, attention to human health and the environment, as well as regular financial support
- v) Capacity development, such as improving national capacities to deal with TPPs through applying the tools of Phytosanitary Capacity Evaluation (PCE) and the Farmer Field School (FFS)

Based on the above discussion, ten recommendations are proposed for the global plant protection com-munity to work hand in hand in fighting against the TPPs.Finally, the briefing materials on the promotion and celebration of the international year of plant health (IYPH) in 2020, including the overall objective, approach, and promotion at global, regional and national levels, as well as the expected outcomes, have already been made.



Keynote Speeches







