

CLIMATE CHANGE WEEK AT THE STDF (3-6 MAY)

BACKGROUND NOTE

1 INTRODUCTION

1. Climate change action is one of the United Nations' Sustainable Development Goals (SDGs) and closely connected to other development objectives.¹ The STDF Strategy (2020-2024) highlights STDF's contribution to safe, inclusive trade and development outcomes in support of the UN's 2030 Agenda amidst global climate change pressures.² Since the launch of the STDF Strategy several members have raised climate change as a cross-cutting topic for future STDF knowledge work. The importance of climate change was highlighted in meetings of the STDF Policy Committee and Working Group and identified as one of the key trends in SPS capacity development during the STDF post-Strategy webinar in February 2021. Earlier, in 2019, STDF's external evaluation had also suggested that the STDF conduct additional work on climate change and the environment.

2. STDF's 2022 Work Plan includes provision for the organization of a global event on SPS and climate change to share recent work by STDF partners and inform thinking around possible future STDF work on this topic.³ This note includes an overview of recent work on climate change by the STDF and its partners. Based on the outcome of the webinars on 3-6 May, the STDF Working Group could consider further STDF work on this topic at its next meeting on 7-8 June 2022.

2 PREVIOUS STDF WORK

3. Climate change is not a new topic for the STDF.⁴ Over a decade ago, in September 2009, the STDF and the World Bank co-organized a seminar on "Climate Change and Agriculture Trade: Risks and Responses".⁵ At this event, research was presented on the relationship between climate change and global trade flows, as well as the implications for food safety, animal and plant health. Participants also identified SPS-related challenges posed by climate change and considered the implications and priorities for SPS capacity development. The event helped increase awareness about the implications of climate change for new and emerging SPS risks and what is needed to address the challenges faced. Findings and conclusions were summarized in a two-page Briefing Note on "Climate Change and SPS risks and responses", available on the STDF website.⁶

4. Reflecting and building on the 2009 seminar, the STDF and the World Bank also issued a joint paper in 2011 to raise further awareness about issues related to SPS risks and standards in the context of agri-food trade and climate change.⁷ The paper analyses the scientific understanding of the relationship between climate change, food safety, plant pests, animal diseases and trade. It identifies and discusses four key areas for future policy consideration, notably risk assessment, SPS capacity in developing countries, climate change resilience, and basic research challenges. The paper also points to the growing need for more agri-food trade to meet the needs of people living in future food deficit regions as global agro-climatic zones shift.

3 RECENT WORK BY STDF PARTNERS

5. In recent years, STDF partner organizations have initiated and conducted new work on the linkages between climate change, SPS risks and trade flows. This includes extensive studies on the prevalence of pests, the dynamics of pathogen populations, the spread of foodborne diseases, etc.

¹ United Nations, "Goal 13 | Department of Economic and Social Affairs," [sdgs.un.org](https://sdgs.un.org/goals/goal13) (United Nations, 2015), <https://sdgs.un.org/goals/goal13>

² See: https://standardsfacility.org/sites/default/files/STDF_Strategy_2020-2024.pdf

³ See: https://www.standardsfacility.org/sites/default/files/STDF_Work_Plan_2022.pdf

⁴ See: <https://www.standardsfacility.org/climate-change>

⁵ The programme and presentations delivered are available on STDF website. See: https://www.standardsfacility.org/sites/default/files/STDF_and_WB_Climate_Change_and_Trade_Workshop_Agenda.pdf

⁶ See: https://www.standardsfacility.org/sites/default/files/STDF_Briefing_No2_EN_web_0.pdf

⁷ STDF and World Bank, *Climate Change and Trade: The Link to Sanitary and Phytosanitary Standards* (STDF, 2011), see: https://www.standardsfacility.org/sites/default/files/STDF_Climate_Change_EN_0.pdf

However, relatively less information is available on the impact of climate change on trade and SPS capacity development, which falls into the scope of the STDF. The STDF webinars will be a first opportunity to bring together and compare partners' work across the areas of food safety, animal and plant health, and trade, and formulate recommendations on SPS capacity development.

Food and Agriculture Organization (FAO)

6. In 2018, the FAO prepared a background paper on "Climate Change, Sanitary and Phytosanitary Measures and Agricultural Trade" (to which the STDF Secretariat contributed) for the State of Agricultural Commodity Markets (SOCO) 2018.⁸ The paper sets out the linkages between climate change, agricultural trade and SPS measures and provides key recommendations on how to overcome the SPS threats posed by climate change. It notes that international agricultural trade not only provides the possibility to counteract regional food shortages caused by climate change impacts, but also affects the dispersion of pests and diseases, as well as food-borne pathogens and contaminants, which points to the importance of enhancing international cooperation and upgrading existing knowledge.

7. In 2020, the FAO published a report named "Climate change: Unpacking the Burden on Food Safety",⁹ which explains the relationship between climate change and food safety hazards. The report highlights the implications of climate change on global food systems by illustrating distinct food safety hazards, including: (i) growing incidences of infections by foodborne pathogens and parasites; (ii) worsening quality of water exacerbated by algal blooms; (iii) facilitated uptake of heavy metals by plants due to rising soil temperatures; (iv) shifts in pesticide application trends given the changing geographic distribution and life cycles of pests; and (v) mycotoxin contamination in staple crops.

8. In 2020, the FAO also issued a short briefing note on "Animal Health and Climate Change", in which it highlights a number of priority areas in which FAO's work at the interface of animal health and climate change should be strengthened.¹⁰

International Plant Protection Convention (IPPC)

9. The Secretariat of the IPPC outlined the potential effects of climate change on plant pests in its "Scientific Review of the Impact of Climate Change on Plant Pests", issued in 2021.¹¹ To make the scientific results more accessible to policymakers, the IPPC also adapted the key findings into a more concise summary.¹² In both publications, it is strongly evidenced that pest risks from insects, pathogens and weeds will increase in managed (e.g. agriculture, horticulture, forestry) and semi-managed (e.g. national parks) ecosystems, and presumably in un-managed ecosystems as well. Given that half of all emerging pests are spread through global travel, trade policymakers are encouraged to adopt preventive, mitigation, and adaptation measures through international cooperation.

10. In March 2021, the Commission on Phytosanitary Measures (CPM) adopted a Recommendation on "Safe Provision of Food and Other Humanitarian Aid to Prevent the Introduction of Plant Pests During an Emergency Situation".¹³ It notes that climate change contributes to a significant increase in severe weather events, which precipitates an urgent need for humanitarian aid. Commonly

⁸ Ralf Lopian, *Climate Change, Sanitary and Phytosanitary Measures and Agricultural Trade (SOCO) 2018: Background Paper* (Rome: FAO, 2018), see: https://standardsfacility.org/sites/default/files/Climate_change_SPS_measures_agricultural_trade_Lopian_FAO_2018.pdf

⁹ FAO, *Climate Change: Unpacking the Burden on Food Safety*. (Rome: FAO, 2020), see: <https://doi.org/10.4060/ca8185en>

¹⁰ See: <https://www.fao.org/3/ca8946en/CA8946EN.pdf>

¹¹ IPPC Secretariat, *Scientific Review of the Impact of Climate Change on Plant Pests* (Rome: FAO on behalf of the IPPC Secretariat, 2021), see: <https://doi.org/10.4060/cb4769en>

¹² IPPC Secretariat, *Summary for Policymakers of the Scientific Review of the Impact of Climate Change on Plant Pests* (Rome: FAO on behalf of the IPPC Secretariat, 2021), see: <https://doi.org/10.4060/cb4777en>

¹³ IPPC Secretariat, *Safe Provision of Food and Other Humanitarian Aid to Prevent the Introduction of Plant Pests during an Emergency Situation*, Commission on Phytosanitary Measures Recommendation No. 9 (Rome: FAO on behalf of the Secretariat of the International Plant Protection Convention, 2021), https://assets.ippc.int/static/media/files/publication/en/2021/04/R-09_En_2021_CPM_Rec_Safe_Provision_of_Aid_2021-04-27_Post-CPM-15.pdf

provided aid includes food (fresh, dried and processed plants and plant products), water, building materials, planting materials (seeds and other plants for planting), support personnel (e.g., volunteers), vehicles, machinery and equipment. Donors should be aware that the provision of aid supplies, unless appropriately prepared to meet the phytosanitary import requirements of the recipient country, can give rise to long-term damage. To help minimize any unintended phytosanitary consequences of such aid, the CPM recommendation provides guidance on the effective management of pest risk associated with commonly provided food and other humanitarian aid.

11. On 7 April 2022, the CPM approved the Action Plan on Climate Change Impacts on Plant Health (2022-2025) prepared by its Focus Group on Climate Change and Phytosanitary Issues. Key actions include *inter alia* to (i) raise awareness of the impacts of climate change on plant health; (ii) enhance the evaluation and management of risks of climate change to plant health; and (iii) enhance the recognition of phytosanitary matters in the international climate change debate. To this end, the plan proposes to: (i) organize and participate in meetings and side events related to the impacts of climate change on plant health; (ii) support countries to collect, analyse and use climate change impacts-related information in decision-making; (iii) support countries in building capacity to help mitigate the impacts of climate change on plant health; (iv) strengthen collaboration with relevant international, regional and national organizations; and (v) facilitate, promote and support phytosanitary issues - related policy dialogue at the global level.

World Health Organization (WHO)

12. In 2019, the WHO issued "Food Safety, Climate Change and the Role of WHO".¹⁴ The publication underscores the negative impact of climate change on food security and its close relationship with effects on food safety, especially in low- and middle-income countries. Several key linkages are identified, with particular attention to: (i) modified bacterial, viral and pathogenic contamination of water and food as a result of changing survival and transmission patterns; (ii) toxic effects and chronic health problems caused by mycotoxins with different occurrence patterns; (iii) contamination of water due to the interaction of algal blooms and fertilizer run-off; (iv) antimicrobial resistance due to the increased use of veterinary drugs; (v) the application of pesticides, and the subsequent residues in food; (vi) remobilisation of contaminated river sediments and subsequent contamination of agricultural and pastureland soil; and (vii) malnutrition and insecure food supplies.

World Organisation for Animal Health (OIE)

13. In 2019, the OIE presented a study on "How External Factors (e.g., climate change, conflicts, socioeconomics, trading patterns) will impact Veterinary Services, and the Adaptations required".¹⁵ The study provided key recommendations for Veterinary Services and the OIE, including paying more attention to areas highly prioritised by external stakeholders and of greater impact on society, such as climate change. In 2021, an article was published in OIE's Scientific and Technical Review on the implications of climate change for veterinary services.¹⁶ It argues that although the goals of preventing disease, maintaining productivity and sustaining healthy systems will remain, the form and scope of veterinary services will need to change.

World Bank Group (WBG)

14. According to the WBG Climate Change Action Plan (2021-2025), agriculture, food, water and land are prioritized as key systems in which the WBG will support transformative public and private investments.¹⁷ In addition, impacts of climate change, which include water scarcity, extreme weather events, declining biodiversity and ecosystem services, and new pests and crop diseases,

¹⁴ WHO, *Food Safety, Climate Change, and the Role of WHO* (WHO, 2019), see: https://cdn.who.int/media/docs/default-source/food-safety/climate-change.pdf?sfvrsn=59c632e7_2&download=true.

¹⁵ Delia Grace et al., "How External Factors (E.g. Climate Change, Conflicts, Socio-Economics, Trading Patterns) Will Impact Veterinary Services and the Adaptations Required," *World Organisation for Animal Health (OIE)*, 2019, see: <https://doi.org/10.20506/tt.2984>

¹⁶ Craig Stephen and Catherine Soos, "The Implications of Climate Change for Veterinary Services," *Scientific & Technical Review of OIE* 40, no. 2 (2021): 421-30, see: <https://doi.org/10.20506/rst.40.2.3234>

¹⁷ World Bank Group, *World Bank Group Climate Change Action Plan 2021-2025: Supporting Green, Resilient, and Inclusive Development* (Washington, DC: World Bank Group, 2021), see: <http://hdl.handle.net/10986/35799>

are considered as great threats to its twin goals of alleviating extreme poverty and boosting shared prosperity.

15. A recent 2021 report explores the ways in which trade and climate change intersect.¹⁸ It notes *inter alia* that trade is critical for countries in the immediate recovery from natural disasters and extreme weather-related shocks such as storms, floods, and droughts. The report recommends removing non-tariff barriers and implement trade facilitation and logistics reforms to reduce delays at borders and along trade routes, especially to reduce food waste. It also calls for reducing non-tariff barriers on agricultural inputs and facilitate access to new technologies for farmers through expedited procedures for releasing seeds and easier movement of agricultural specialists.

16. The World Bank's 2018 publication "The Safe Food Imperative: Accelerating Progress in Low- and Middle-Income Countries" touches briefly on the effects of climate change on food safety. Climate change is an important long-term factor for the spread of foodborne diseases and can influence the efficacy of adaptive farming and supply chain practices related to soil fertility, pests, animal disease, and product quality management.¹⁹

World Trade Organization (WTO)

17. WTO Members have been negotiating an "SPS Declaration" for adoption at WTO's 12th Ministerial Conference (MC12), which will take place in June 2022.²⁰ The aim of the Declaration is to raise the profile of the work of the WTO SPS Committee and establish a forward-looking and proactive agenda for the coming years. The proposed Declaration highlights "changing climatic conditions and associated stresses on food production" as one of the critical topics. A related background document on "New Opportunities and Emerging Challenges in International Trade in Food, Animals and Plants" maps out further the shifting pressures due to climate change-induced pests, diseases, disease-carrying organisms or disease-causing organisms.²¹ It also stresses that "the movement of planting materials, trade in agricultural products, and passenger travel can also facilitate the long-distance movement of plant pests and diseases, including invasive species". To address these issues, timely access to new pest management tools and production strategies, as well as the adaptation of SPS measures to regional conditions are considered key.

18. In 2021, the WTO also published five information briefs on trade, climate and related issues in support of efforts to harness trade policy as part of the solution for effective and just climate action.²² Among them, the third brief, on trade resilience amid natural disasters, notes that "climate change is a major factor in the increased occurrence and intensity of some categories of natural disasters including hydrological, meteorological and climatological events".²³ Typically, recovery from natural disasters tends to be slow in agriculture as production outputs such as root crops, fruit trees and livestock require time to grow. In terms of disaster mitigation efforts, it highlights the importance of the SPS and TBT Agreements in ensuring the quality and safety of imported relief items and (longer-term) of products exported by the disaster-affected country.

¹⁸ Paul Brenton and Vicky Chemutai, "The Trade and Climate Change Nexus: The Urgency and Opportunities for Developing Countries," *World Bank* (Washington, DC: World Bank, 2021), see: <https://openknowledge.worldbank.org/bitstream/handle/10986/36294/9781464817700.pdf?sequence=5&isAllowed=y>

¹⁹ Steven Jaffee et al., *The Safe Food Imperative: Accelerating Progress in Low- and Middle-Income Countries* (Washington, DC: The World Bank, 2019), <https://openknowledge.worldbank.org/handle/10986/30568>

²⁰ SPS Committee, *Sanitary and Phytosanitary Declaration for the Twelfth WTO Ministerial Conference* (WTO, 2021), see: <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/G/SPS/GEN1758R8.pdf&Open=True>

²¹ SPS Committee, *New Opportunities and Emerging Challenges in International Trade in Food, Animals and Plants* (WTO, 2021), see: <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/G/SPS/GEN1960.pdf&Open=True>

²² The information briefs are available on WTO website. See: https://www.wto.org/english/news_e/news21_e/clim_03nov21_e.htm

²³ See: https://www.wto.org/english/news_e/news21_e/clim_03nov21-3_e.pdf