



COMMITTEE ON AGRICULTURE

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**Outcomes of the FAO Global Conference on Sustainable Plant Production
(GPC)**

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I. Introduction

1. FAO organized the first-ever Global Conference on Sustainable Plant Production (GPC) with the theme *Innovation, Efficiency and Resilience*,¹ from 2 to 4 November 2022. The objectives of the GPC were to raise awareness on the contribution of sustainable plant production to implementing the FAO Strategic Framework 2022-31 to achieve the Sustainable Development Goals (SDGs). The GPC also aimed at sharing information and knowledge on the strategic direction and technical developments in sustainable plant production worldwide, to demonstrate FAO's technical leadership and convening power to support its Members, and to create a neutral platform and technical networks for sustainable plant production.

2. The GPC attracted 4 500 online registrants and over 1 000 in-person participants. The Director-General of FAO delivered opening and closing remarks at the event. The programme of the GPC included eight keynote speeches, five high-level ministerial segments, and 65 technical presentations across seven thematic topics: seed systems; field cropping; protected cultivation; natural resource management; integrated pest management; mechanization and digitalization; and farmers and enabling environment. Recordings from all presentations are available online through the FAO website.²

II. Outcomes of the GPC

3. The GPC led to two key outputs:

- i. The Proceedings of the GPC,³ which included a synthesis of keynote presentations, high-level ministerial and technical presentations.
- ii. Twenty actionable recommendations on strategic actions for the development of sustainable cropping systems. The recommendations encompass all thematic areas highlighted in the GPC, as well as six cross-cutting recommendations to guide innovation for global sustainable plant production systems, as presented below:
 - adopt policies and investment mechanisms to implement the recommendations formulated by the GPC to transition to systems that are culturally appropriate, beneficial to local societies, economies and environments, leaving no one behind.
 - enhance capacities of farmers to transition towards sustainable plant production by increasing access for all to knowledge, technologies, inputs, and public and private services, with particular focus on participatory extension benefitting small-scale farmers, women and youth.
 - support governments, the private sector and civil society organizations to conserve and characterize genetic diversity and to develop productive and locally adapted plant varieties to meet future demands for high-quality and plentiful food, despite increased pests and diseases, limited natural resources and unpredictable changes in weather and climates.
 - ensure farmers' access to high-quality and disease-free seed and planting materials, through the development of regulatory frameworks, public-private partnerships, stronger farmer and market representation, and effective assurance mechanisms.
 - innovate cropping systems, based on traditional and new knowledge, use of adapted varieties, to increase food production and better protect natural resources, biodiversity and the environment, while creating decent jobs both on- and off-farm;

¹ FAO. 2022. *Global Conference on Sustainable Plant Production* <https://www.fao.org/events/detail/global-conference-on-sustainable-plant-production/en>

² *Ibid* <https://www.fao.org/events/detail/global-conference-on-sustainable-plant-production/en>

³ Telemans, B., Beed, F. & Jingyuan Xia, J., eds. 2023. *Proceedings of the FAO Global Conference on Sustainable Plant Production, 2-4 November 2022*. Rome, FAO

<https://openknowledge.fao.org/server/api/core/bitstreams/e9f79cd3-9577-4def-a91f-502abc2ea17e/content>

- develop solutions to enhance cropping systems with resilience to stresses caused by pests, diseases, climate fluctuations and socioeconomic factors by engaging appropriate partnerships and markets to improve livelihoods and incentivize protection of biodiversity and natural resources;
- develop applicable business cases and facilitate local market development to optimize farmers' access to inputs, services and technologies that increase yields and climate resilience, while reducing demands for natural resources;
- support the transition to profitable and productive urban and peri-urban horticultural systems based on durable access to land and inputs, and efficient use and recycling of resources, to provide safe, fresh and nutritious foods;
- optimize resource-use efficiency by adopting integrated approaches that leverage local knowledge and scientific methods, to ensure soil health and sustainable management of water and nutrients;
- promote sustainable cropping systems that harness ecological processes and interactions, integrate local sociocultural values, promote economic inclusion and environmental adaptation, to strengthen farmer livelihoods, community resilience and ecosystem preservation;
- reduce risks from biotic threats by improving surveillance, diagnostics and modelling for better understanding of the effects of climate change and for more efficient tracking and predicting of the movements of transboundary pests and pathogens, developing guidance on strategies for management, risk reduction and plant protection;
- develop, scale up and promote biological and ecology-based methods, technology packages and digital tools to control critical pests and diseases while minimizing pollution risks;
- develop and promote innovative business models that give access to sustainable agricultural mechanization and power sources, and that provide multiple services and commercial benefits to small-scale farmers, while offering climate-resilient solutions and empowering women and youth;
- create an equitable digital ecosystem that leverages big data and digital solutions to give farmers, regardless of their knowledge, skills, location and resources, access to a range of tools that respond to their needs and support them in achieving financial independence, environmental sustainability, and social inclusion;
- empower farmers, women and youth to be co-innovators with academic institutions, research organizations and the private sector, of technologies, practices, policies and business models facilitating the science- and evidence-based transition to more beneficial, productive, sustainable, healthy, resilient and socially inclusive agrifood systems;
- address climate change by enhancing resilience of plant-based agriculture systems by improving adaptive capacity, reducing vulnerability and greenhouse gas emissions, avoiding deforestation and increasing carbon sequestration;
- improve the efficiency of plant production and agrifood systems, produce more and better plant-based nutritious food, with a smaller environmental footprint;
- design, refine and bring to scale integrated and inclusive development approaches by brokering partnerships involving farmers, markets, and the public and private sectors to build capacity through participatory learning and strong governance;
- establish synergistic technical networks that involve diverse actors with multidisciplinary approaches to leverage their unique strengths, and support the transition to sustainable plant production; and

- facilitate coordination among key stakeholders to collaboratively establish priorities, mobilize resources to test, adapt and scale up innovative approaches.

III. Way Forward

4. As a follow up to the GPC, a Roundtable Forum⁴ was held on 16 June 2023 to enable the GPC Steering Committee and Technical Advisory Panel, as well as a selected group of global experts, to validate the GPC recommendations and suggest tangible actions. The Roundtable discussion emphasized key actions that were grouped into the five thematic areas covered by the GPC, namely: (i) Seed systems management; (ii) Cropping systems management; (iii) Plant health management; (iv) Agricultural mechanization and digitalization; and (v) Technology innovation and transformation.

5. The GPC recommendations and the subsequent core activities and follow-up actions validated during the Roundtable Forum held in June 2023 are being implemented by FAO, in collaboration with Members. Below are selected examples of follow-up actions undertaken so far:

- Seed systems management:* FAO produced a seed policy document for government counterparts, which included information to support plant breeding efforts, variety evaluation and adoption. Moreover, FAO established a new position under its Regular Programme to accelerate work on mechanization for seed value chains in the field through targeted studies, projects and catalytic partnerships.
- Cropping systems management:* FAO supported vertical funded projects and programmes [Green Climate Fund (GCF), Global Environment Facility (GEF)] to upscale sustainable integrated production systems. Agroforestry work was enhanced with technical backstopping, training materials, normative guidelines and knowledge products. A Committee on Forestry (COFO) and Committee on Agriculture (COAG) Special Joint Event on *Scaling-up Agroforestry* was held on the occasion of the 174th Session of the FAO Council on 7 December 2023 to showcase FAO's work on agroforestry and national experiences from Members and discuss ways forward.⁵
- Plant health management:* FAO continues to promote early monitoring, forecasting and preparedness of important transboundary pests and diseases through digital technologies, and enhanced innovation and application of integrated pest and disease management with focus on ecologically-based technologies.
- Agricultural mechanization and digitalization:* FAO is implementing the Digital Villages Initiative and Smart Farming to optimize vegetable production, create decent jobs, and ensure safe and steady market linkages. FAO organized the first-ever Global Conference on Sustainable Agricultural Mechanization (GAMC), held from 27 to 29 September 2023.⁶
- Technology innovation and transformation:* FAO provided a special allocation through its Value Added Impact Areas (VAIA) to create a Global Innovation Accelerator for integrating sustainable agricultural mechanization with the Farmer Field School (FFS) approach.

6. FAO will continue to build on the GPC outputs and outcomes to strengthen its work in the field of sustainable plant production and to support Members to transform their agrifood systems to be MORE efficient, inclusive, resilient and sustainable, leaving no one behind.

⁴ FAO. 2023. *First Virtual Roundtable Forum on Sustainable Plant Production*. <https://www.fao.org/plant-production-protection/news-and-events/news/news-detail/first-virtual-roundtable-forum-on-sustainable-plant-production/en>

⁵ Special joint event during Council 174th^h Session on *Scaling up Agroforestry*. <https://www.fao.org/newsroom/detail/agroforestry-is-a-key-climate-solution--director-general-says-at-fao-council-side-event/en>

⁶ FAO. 2023. *Global Conference on Sustainable Agricultural Mechanization*. <https://www.fao.org/events/detail/global-conference-on-sustainable-agricultural-mechanization/en>