G20 Japan 2019
8th Meeting of Agricultural Chief Scientists (MACS)
Communiqué

1. We, the Agricultural Chief Scientists from G20 members, met in Tokyo, Japan on 25th and 26th April 2019, along with participants from guest countries and international organizations[1]. During discussions and building on the outcome of previous meetings, we recognized the need to continue advocating for science-based decision making as a foundation for advancing global food production. Science and technology play critical roles in ensuring that the global food system can meet the challenges of a growing population and changing environment. We recognize that research and innovation are critical for sustainable productivity growth in the agri-food sector and are vital in delivering solutions on a wide range of issues to farmers. The Agricultural Chief Scientists from G20 members have a major role to play in this and in ensuring that a collaborative approach is followed where appropriate.

2. In Tokyo, we discussed global research priorities in agriculture; methods of facilitating collaboration among G20 members and with relevant stakeholders; and ways of supporting discussions by G20 Agriculture Ministers to be held in Niigata, Japan on 11th and 12th May 2019, especially regarding innovation towards sustainability of the agri-food sector, and collaboration and knowledge exchange to address global issues. We look forward to continuing to advise Ministers on scientific and strategic issues arising from their meeting in Niigata.

3. We heard a keynote presentation which provided a holistic view of the dynamic role of innovative agricultural research in economic and social development. Subsequent discussions focused mainly on three topics: transboundary plant pests[2]; social experiment-like approaches[3] to facilitating on-site adoption of climate-smart technologies and practices for sustainable agriculture; and stocktaking of discussions in, and initiatives emanating from, past Meetings of G20 Agricultural Chief Scientists (MACS-G20).

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[1] Participants included representatives from G20 members (Argentina, Australia, Brazil, Canada, China, European Union, France, Germany, India, Indonesia, Italy, Japan, Mexico, Republic of Korea, Russian Federation, Saudi Arabia, South Africa, Turkey, United Kingdom and United States of America), guest countries (the Netherlands and Spain), and international organizations (CABI, CIAT, CIMMYT, CGIAR, IFPRI, IPPC, FAO, GRA and the World Bank).

[2] "Pest" means "any species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products" based on the definition used in the International Plant Protection Convention.

[3] The proposed concept of "social experiment-like approach" is an experimental approach in which technologies are introduced in combination with supporting policies and measures, under collaboration between natural and social sciences, within a targeted area and period.

4. We recognize that transboundary plant pests have become a serious threat to food security and the environment that may be exacerbated by changing climate conditions and the globalized movement of people and commodities. We acknowledge that it is important for our research institutions to implement effective actions through international collaboration, including with developing countries.

5. Therefore, we support the proposal from Japan to hold an international workshop later in the year in order to share experiences of G20 members and invited guests, and the latest information on the occurrence and management of plant pests, and facilitate international research collaboration to help develop effective countermeasures for major plant pests. This could include diagnostic technologies, epidemiology, monitoring technologies, border measures to avert introduction and measures for prevention and control.

6. We also encourage diagnostic laboratories, research institutes and universities to establish networks among themselves, and to promote voluntary interactions within these networks and with other stakeholders. Interested G20 members could target certain major transboundary plant pests for research cooperation, including implementation of international joint research projects. We welcome the adoption of the UN resolution on the International Year of Plant Health 2020, and recommend that G20 Agriculture Ministers support the above-mentioned activities to facilitate research collaboration on transboundary plant pests and thus contribute to sustainable food production.

7. We recognize the importance of electronic phytosanitary certification (ePhyto) as a technological solution that, when globally implemented, will support efforts to minimize the spread of transboundary plant pests and provide a mechanism for rapid response to identified issues. We support the International Plant Protection Convention (IPPC) in the implementation of ePhyto and encourage participation in this important IPPC initiative.

8. We recognize that the agricultural sector is particularly vulnerable to the impacts of changing climate conditions and weather variability, while also being a source and sink of greenhouse gases (GHG). We share the view that the development and implementation of innovative agricultural technologies and practices can support sustainable food production, climate resilience, carbon sequestration, and reduce GHG emissions from agriculture. In this respect, we welcome initiatives that facilitate international research and public-private partnerships on this topic.

9. Therefore, we support the proposal from Japan to hold a workshop later in the year to share the experiences of G20 countries and invited guests, and the latest information and facilitate research collaboration in the development and scaling up and out of climate-smart technologies and practices for sustainable agriculture. This may include monitoring climate change; impact assessment; development of new plant varieties; management practices for adaptation and mitigation; reduction of GHG emissions and enhancement of carbon sequestration.

10. Interested G20 members could identify sustainable adaptation and/or mitigation technologies and practices for scaling up and out, and strengthen research collaboration with countries that are interested in the introduction of these technologies. This collaboration may include implementing on-site pilot projects using social experiment-like approaches such as Agroecosystem Living Labs[4] (ALL) and climate resilient village[5] as well as cross-cutting approaches that might be identified by G20 members including data management. We recommend that G20 Agriculture Ministers support these voluntary activities that strengthen research collaboration for scaling up and out climate-smart technologies and practices for sustainable agriculture.

11. In order to tackle transboundary plant pests and scale up and out climate-smart technologies and practices for sustainable agriculture, we acknowledge the importance of strengthening coordination and collaboration with existing relevant international and regional activities and networks.

12. We take note of the stocktaking reports on activities emanating from the MACS-G20 prepared by Japan, Argentina, and lead countries of working groups and initiatives. We acknowledge the importance of continuing this stocktaking exercise.

13. We decided on a task force to be co-chaired by Australia and the United States to develop guiding principles for working groups and initiatives emanating from MACS. The task force plans to deliver draft principles to MACS country representatives two months in advance of, for review and approval at, the 2020 MACS. The guiding principles may be incorporated into the MACS Terms of Reference after approval.

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[4] The term "Agroecosystem Living Labs" is defined as "transdisciplinary approaches which involve farmers, scientists and other interested partners in the co-design, monitoring and evaluation of new and existing agricultural practices and technologies on working landscapes to improve their effectiveness and early adoption."

[5] Climate Resilient Village (CRV) is the one where climate resilient agriculture is practiced, that encompasses the implementation of adaptation and mitigation practices in agriculture which increases the capacity of the system to respond to various climate related disturbances by resisting damage and ensuring quick recovery.

14. We acknowledge that during its presidency, Japan is maintaining and updating the MACS-G20 website, which was established by Germany in 2017 to assist the MACS community in keeping track between G20 presidencies of relevant documents, events, photo gallery and contacts for G20 members. This website will also provide access to information on the ongoing activities by interested G20 members emanating from MACS-G20.

15. We recognize the ongoing voluntary efforts of the working groups on sustainable soil management led by France and Russia, and Agricultural Technology Sharing (ATS) led by China. We also support continuing efforts of collaborative work on reduction of food loss and waste led by Germany, and welcome the report on activities derived from the cooperation between Germany and other relevant stakeholders and members. We also recognize the ongoing voluntary efforts of the United Kingdom to scope on international networks on genetic diversity.

16. We welcome the Executive Report submitted to the 8th MACS-G20 by the working group led by Canada and the United States on Agroecosystem Living Labs (ALL), which summarizes the current state of utilization of ALL approaches and best practices in participating countries. We also acknowledge that implementing ALL could increase the speed and spread of adoption of new innovative practices and technologies for sustainable agriculture.

17. We look forward to the next MACS-G20, to be hosted by Saudi Arabia in 2020.