



## **STOCKTAKING UPDATES SHEETS**

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**9th Meeting of G20 Agricultural Chief Scientists  
(MACS)2020**

The updates on the Stocktaking of the activities and/or working groups emanating from previous G20 MACS are compiled in this file, which mainly aimed to inform G20 members about these activities. It has been drafted before the ninth G20-MACS2020, and the draft is not supported by the G20 MACS. The Communiqué of G20 MACS is the official G20 MACS position.



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## 1. Stocktaking of the G20 MACS Task Force emanating from the previous G20 MACS

<b>Title of MACS Initiative/Working Group</b>	<b>G20 MACS Task Force</b>
Leading Country/Countries	Australia and the United States
Relevant paragraph in the MACS Communiqué	Paragraph 13 2019 MACS Communiqué.
Objectives	<p>Develop G20 MACS guiding principles for working groups and initiatives emanating from MACS.</p> <p>From 2019 MACS Communiqué: “We [G20 Agricultural Chief Scientists] 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.”</p>
Activities/Outcomes since MACS 2019 until MACS 2020	<ul style="list-style-type: none"> <li>• Established: 2019 G20 MACS (April 25-26, 2019)</li> <li>• July 14: Letter from U.S. and Australia to G20 designating co-chairs and requesting task force members by June 30, extended to July 8, reminder sent June 28.</li> <li>• July 11: Welcome from co-chairs with work plan timeline.</li> <li>• Aug 6: Survey issued to task force members, due Aug 23.</li> <li>• Oct 10: First draft principles issued for review to task force, due Oct 25.</li> <li>• Nov 12: Second draft principles issued to task force small team to work through remaining issues.</li> <li>• Dec 3: Letter from task force co-chairs to Troika providing draft principles and unresolved issues.</li> </ul>
Work plan after MACS 2020	None.
Other issues (if any)	Task Force Members: U.S. (co-chair), Australia (co-chair) Japan, United Kingdom, Saudi Arabia, Germany, India, Canada, EU, China, Russia, Italy, France, Argentina, and South Korea.

## 2. Stocktaking of the International Workshop on Facilitating International Research Collaboration on Transboundary Plant Pests emanating from the previous G20 MACS

Title of MACS Initiative/Working Group	International Workshop on Facilitating International Research Collaboration on Transboundary Plant Pests
Leading Country/Countries	Japan
Relevant paragraph in the MACS Communiqué	<p>&lt;MACS 2019 Communiqué&gt;</p> <p>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.</p> <p>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.</p>
Participating countries/Organizations	<p>G20 members and other interested countries and organizations with expertise in transboundary plant pests. (Participating countries/Organizations to the WS are Australia, Brazil, China, France, Germany, India, Italy, Japan, Republic of Korea, Saudi Arabia, South Africa, Turkey, United Kingdom, Netherlands, New Zealand, CABI, CIAT, CIMMYT and FAO)</p>
Objectives	<p>To share the experiences of G20 members and invited guests and the latest information on the occurrence and management of transboundary plant pests, as well as to facilitate international research collaboration to help develop effective countermeasures for major plant pests. This workshop also aims to encourage diagnostic laboratories, research institutes and universities to establish networks</p>

	among themselves and to promote voluntary interactions with stakeholders.
Activities/Outcomes since MACS 2019 until MACS 2020	<p>September, 2019            Nine discussion groups (DGs) on specific plant pests, namely (a) Fall armyworm, (b) Fruit flies, (c) Red palm weevil, (d) <i>Xylella fastidiosa</i>, (e) Citrus greening, (f) Tomato brown rugose fruit virus, (g) Wheat blast, (h) Fusarium wilt tropical race 4, and (i) Crosscutting issues, have been launched by the Ministry of Agriculture, Forestry and Fisheries (MAFF) in Japan.</p> <p>November 27th - 29th, 2019            International Workshop on Facilitating International Research Collaboration on Transboundary Plant Pests was held by MAFF in Tsukuba, Ibaraki, Japan.</p>
Work plan after MACS 2020 (if any)	<p>Reinforcement of collaboration among DGs along with the proficient stakeholders such as reference laboratories as well as other ongoing initiatives.</p> <p>Other activities are to be decided in consultation with the participating countries/organizations.</p>
Other issues (if any)	<p>FAO has launched the United Nations' International Year of Plant Health (IYPH) for 2020, with the aims to raise global awareness on how protecting plant health can help end hunger, reduce poverty, protect the environment, and boost economic development.</p> <p>Synergetic effects are expected in collaboration with the activities under IYPH.</p>

### 3. Stocktaking of the International workshop Scaling up and out of climate-smart technologies and practices for sustainable agriculture emanating from the previous G20 MACS

Title of MACS Initiative/Working Group	International workshop “Scaling up and out of climate-smart technologies and practices for sustainable agriculture”
Leading Country/Countries	Japan
Relevant paragraph in the MACS Communiqué	<p>&lt;MACS 2019 Communiqué&gt;</p> <p>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.</p> <p>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.</p>
Participating countries/Organizations	G20 members and other interested countries and organizations with expertise in changing climate conditions and agriculture (Australia, Canada, China, France, India, Indonesia, Italy, Japan, Netherlands, Republic of Korea, Russian Federation, Saudi Arabia, United Kingdom, United States of America, CGIAR)
Objectives	To share experiences of G20 members and invited guests, and the latest information and facilitate research collaboration in the development and scaling up and out climate-smart technologies and practices for sustainable agriculture.

<p>Activities/Outcomes since MACS 2019 until MACS 2020</p>	<p>August to October, 2019. 31 case studies on scaling up and out of climate-smart technologies and practices were submitted and analyzed.</p> <p>November 5th - 7th, 2019 In order to share the case studies and discuss lessons learned from them, the international workshop “Scaling up and out of climate-smart technologies and practices for sustainable agriculture” was held in Tokyo, Japan</p>
<p>Work plan after MACS 2020 (if any)</p>	<p>Follow-up activities including conducting further analysis of the case studies and organizing a second workshop are being considered.</p>
<p>Other issues (if any)</p>	<p>nil</p>

#### 4. Stocktaking of the MACS-G20 Collaboration Initiative Food Losses and Wastes emanating from the previous G20 MACS

<b>Title of MACS Initiative/Working Group</b>	<b>MACS-G20 Collaboration Initiative Food Losses and Wastes</b>
Leading Country/Countries	Germany
Relevant paragraph in the MACS Communiqué	15
Participating countries/Organizations	Australia, Brazil, Canada, China, FAO, Japan, Russia, UNEP
Objectives	Aim of the Meeting of Agricultural Chief Scientists of G20 collaboration initiative on Food Losses and Waste is to concentrate the research and political consulting capacities in order to mobilize a noticeable reduction of food losses and waste on a global scale.
Activities/Outcomes since MACS 2019 until MACS 2020	<p>Details please see <a href="#">Annual Report 2019</a>. Selected issues:</p> <p>.) The number of registered experts at the <a href="#">Global FLW Research Platform</a> remained more or less stable since last MACS (from 111 in April 2019 to 116 in January 2020). The experts come from 25 countries (22 in April). Registered projects increased by 4 (95 projects in January 2020).</p> <p>.) The FLW workshop series was continued. The Ministry of Agriculture, Forestry and Fisheries of Japan, FAO Liaison Office Japan, UN Environmental Programme and Thünen Institute jointly organized the "International Workshop on Food Loss and Waste Prevention targeting Southeast and East Asian region" which was coordinated with the World Food Day from October 16<sup>th</sup> to 18<sup>th</sup> in Tokyo/Japan. In plenary and working group sessions regional issues of food loss and waste were presented and discussed among the 78 participants from Japan, Singapore, China, Macao Special Administrative Region of the People's Republic of China, Republic of Korea, Indonesia, Thailand, Taiwan, Saudi Arabia and Germany as well as from FAO and UNEP. A special honour was the introductory presentation by Ms. Toshiko Takeya, Parliamentarian and Secretary General of the "Parliamentary League for the Reduction of FLW and the Support of food banks", which provided an in-depth</p>



insight into the specific legislation on FLW in Japan. Ms. Takeya took the opportunity to exchange technical knowledge and participated also in further sessions. All workshop information can be found at the [Initiative's website](#).

.) According to its proposal mentioned at MACS-G20 2018, the Government of Argentina submitted an application to the Food and Agriculture Organization (FAO) to create an International Food Waste Awareness Day on September 29th each year. On December 19th, 2019, the 74th United Nations General Assembly finally designated September 29th as the International Day of Awareness of Food Loss and Waste.

.) The scientific stay of Mr. Rykalin from the Eurasian Center for Food Security (ECFS) in Moscow at Thünen Institute in February 2019, was further used for development of a series of journalistic notes about FLW projects in Germany using text and video format and transferred to public via social media. The established contact to German Foodsharing Movement was deepened in Moscow with the corresponding network which led to a saving of more than a ton of surplus food products distributed for human consumption instead of being wasted. Another consequence of the visit was the establishment of a network including the key leaders dealing with FLW topics in Russia, starting to track analytics and activity on FLW and to support popularizing FLW projects in Russia.

.) In July 2019, another 12-day internship took place in cooperation of Eurasian Center for Food Security (ECFS) and Thünen Institute. Ms. Aleksandra Kosterina focused on FLW issues only and will use her updated knowledge as basis for further FLW research activities done by ECFS on national levels.

.) The Saint-Hyacinthe Research and Development Centre in Quebec/Canada as part of Science and Technology Branch of Agriculture and Agri-Food Canada and Thünen Institute cooperate within the project "Implementation of a technology platform to develop sustainable strategies in order to reduce Food Loss and Waste across the continuum

	<p>of food distribution in Canada". This project will be an opportunity to develop sustainable strategies to reduce FLW in the food distribution continuum while considering actual food distribution and export conditions by simulation. The core project activities will be achieved in Canada while Germany will act as facilitator for findings distribution.</p> <p>.) In order to facilitate ongoing cooperation related to FLW with Brazil, a Memorandum of Understanding is under preparation between Embrapa/Brazil and Thünen Institute/Germany.</p> <p>.) Thünen Institute will support Saudi Arabia with implementation of FLW topic throughout G20 presidency. Starting point is a presentation given at the 1<sup>st</sup> Agriculture Deputies Meeting in January 2020.</p>
<p>Work plan after MACS 2020 (if any)</p>	<p>The above mentioned activities will be continued.</p> <p>The FLW workshop series will be continued in cooperation with partners from Saudi Arabia as well as UNEP. The regional workshop is scheduled for October 14<sup>th</sup> to 15<sup>th</sup>, 2020.</p>
<p>Other issues (if any)</p>	<p>-</p>

## 5. Stocktaking of the International Agroecosystem Living Labs (ALL) Working Group emanating from the previous G20 MACS

Title of MACS Initiative/Working Group	International Agroecosystem Living Labs (ALL) Working Group
Leading Country/Countries	Canada and the United States
Relevant paragraph in the MACS Communiqué	Paragraphs 10 and 16 of the 2018 MACS Communiqué.
Objectives	<p>The ALL working group serves two core functions: first, to develop a framework to foster and catalyze collaboration around ALL; and second, foster dialog, standardization, and sharing of knowledge and data. The following strategic objectives have been identified to accomplish these functions:</p> <ol style="list-style-type: none"> <li>1. Assess the current state of utilization of the ALL approach, highlighting successes and identifying common challenges in participating countries.</li> <li>2. Increase common understanding of the ALL approach.</li> <li>3. Stimulate research cooperation in areas related to ALL.</li> <li>4. Evaluate the costs/benefits of ALL versus more traditional agricultural research approaches.</li> <li>5. Foster an increase, with a focus on the public sector, in research and capacity in key areas, including but not limited to: co-development approaches with end-users; better integration of relevant natural and social sciences; recruitment and development of human resources with key skills; and, data management and standardization.</li> </ol>
Activities/Outcomes since MACS 2019 until MACS 2020	<p>As outlined in the update presentation at the 2019 G20 MACS, the working group completed all outlined activities before the meeting in Tokyo.</p> <p>The Executive Report drafted by the working group and its findings were presented by Dr. Chavonda Jacobs-Young (Acting Chief Scientist, United States Department of Agriculture) and Dr. Brian T. Gray (Agriculture and Agri-Food Canada) at MACS 2019 and is available on the MACS website.</p>

	<p>As proposed and described in the Executive Report, interested countries have explored collaboration on issues relating to the effective use and implementation of Agroecosystem Living Laboratories. They continue to share pertinent knowledge and data.</p> <p>A synthesis paper of the findings of the working group's Executive Report is currently being drafted by Canada and the United States and could be submitted for peer-review publication later in 2020.</p>
Work plan after MACS 2020 (if any)	Bilateral and multilateral collaborations will continue outside of the MACS framework.
Other issues (if any)	

## 6. Stocktaking of the Agricultural Technology Sharing Working Group emanating from the previous G20 MACS

<b>Title of MACS Initiative/Working Group</b>	<b>Agricultural Technology Sharing Working Group</b>
Leading Country/Countries	China
Relevant paragraph in the MACS Communiqué	MACS Communiqué 2016, Para 14; 2017, Para 13; 2018, Para 12; 2019, Para 15.
Participating countries/Organizations	Germany, India, Indonesia, Italy, Japan, Spain, South Korea, Russia, China, Turkey, Argentina FAO, GFAR, IFPRI, OECD, CABI, GODAN
Objectives	<p>Create a platform for information and knowledge sharing on agricultural technology in order:</p> <ul style="list-style-type: none"> <li>To encourage G20 members, interested countries and international organizations to share information and knowledge on agricultural technologies</li> <li>To improve information access on agricultural technologies, facilitate technology support, share experience in skills for sustainable agriculture development;</li> <li>To bring efficiency for rapid innovation and use of sparse resources for scientific endeavor and technology generation from global good;</li> <li>To optimize collaborative mechanisms for information and knowledge sharing, and enhancing cooperation among various stakeholders;</li> <li>To construct sources of information ready for cross-search and integration of specific problems.</li> </ul>
Activities/Outcomes since MACS 2019 until MACS 2020	CAAS further improved the ATS website to achieve registration, uploading, searching, and online consultation. The draft Metadata and standard for sharing and exchange of agricultural data, information and technology was developed and discussed among agricultural research institutions in China. Some individual agriculture technologies and good practices from Japan and India were shared in ATS website.

	<p>New partnerships were developed with universities in India and UK for agricultural technology sharing. CAAS also promoted ATS in organized or participated international event. In November 2019, CAAS organized the 6th Global Forum of Leaders for Agricultural Science and Technology (GLAST) with around 400 participants from 39 countries and 15 International Organization, as well as domestic agricultural research institutions and Universities. The ATS and its progress were presented in the GLAST. It is anticipated that more interested countries, International Organizations and private sectors will get to know and use the ATS. In addition, China also joined the International Workshop on Food Loss and Waste Prevention targeting Southeast and East Asian region, the International Workshop on Transboundary Crop Pest and Disease Control and the International Workshop on Climate Smart Agriculture in Japan under G20 MACS mechanism.</p>
<p>Work plan after MACS 2020 (if any)</p>	<p>Welcome more member countries and interested organizations to discuss about the standards for sharing information and knowledge of agriculture technology and register in ATS</p> <p>Organize ATS working group meeting</p>
<p>Other issues (if any)</p>	<p>To be filled here</p>

