

G20 Agriculture Ministers' Action Plan 2017

*Towards food and water security:
Fostering sustainability, advancing innovation*

January 22nd 2017 in Berlin

Implementation of the 2030 Agenda for Sustainable Development

1. We will continue contributing to the implementation of the 2030 Agenda including the 17 SDGs and the Addis Ababa Agenda on Financing Development through our individual and collective actions. We support the implementation of the G20 Action Plan on the 2030 Agenda. We encourage synergy-building among all relevant stakeholders, including G20 governments, agricultural scientists, entrepreneurs and farmers. We will take action to contribute to the SDGs on the national level, advocate for the SDGs in our multilateral cooperation and contribute to the promotion of sustainable development. We will continue to support other countries in achieving the SDGs through international cooperation.

Implementation of the UNFCCC and the Paris Agreement¹

2. We will take action to implement the Paris Agreement¹ in the agricultural sector.

Agriculture and water

3. We commit to approaches that improve sustainability of water use in food and agricultural production while ensuring food security and nutrition in accordance with our multilateral trade commitments. This implies approaches that help to keep rural areas economically and socially vital. To this end, we aim to ensure that water is protected, used and managed sustainably and we support the following measures:

Governance and coherence of water-related policies

a) We will better **integrate** the sustainable use and management of **water in food and agricultural policies**. This includes measures to optimise water harvesting, water and soil conservation, ground water management and water allocation systems. We note the benefits of a watershed-scale approach that recognises the multiple uses of water and integrates good farming practices with effective land-use planning. We will promote good farming practices including cover crops, conservation tillage and nutrient management in order to complement and reinforce sustainable water management. This includes the preservation of buffer strips along lake banks and water courses, like riparian forests. Furthermore, we will better integrate these issues into related sectoral risk assessments and management, recognizing the need to

¹ Still subject to ratification in some countries.

address data gaps in water information. The Recommendations from the Committee on World Food Security (CFS) in its 42nd session on water for food security and nutrition may serve as guidance. We take note of the OECD Recommendation of the Council on Water (2016).

b) We will improve the **coherence** of policies related to water and agriculture. We aim to contribute towards better coordination of roles and responsibilities for water management across government bodies at all levels and to encourage the participation of all relevant actors. We recognise that this is important both in order to promote more effective governance and to strike a balance between different competing interests. We take note of the corresponding recommendations in the High Level Panel on Water's (HLPW) Action Plan (2016), in the OECD Principles on Water Governance (2015) and in the FAO's Coping with Water Scarcity in Agriculture: A Global Framework for Action in a Changing Climate (2016) in this respect. We will give due consideration to cross-sectoral approaches to address the synergies and trade-offs between the goals of food production, protection of water, land and biodiversity as well as energy use through enhanced dialogue, collaboration, and policy coherence. We aim to solicit support for the food and agricultural element in the respective water, climate and energy fora.

c) We take note of the diverse activities of international organisations in the area of water policy and in the governance of water in agriculture. We endorse close **cooperation** at all levels in implementing the water, food security and nutrition goals of the 2030 Agenda. We therefore call upon relevant global and regional organisations to strengthen their coordination and convening of stakeholders on water-related issues in light of the 2030 Agenda. We call for action to improve the global water architecture in order to integrate and coordinate work at the United Nations on water-related goals. We invite the relevant bodies to give due and balanced consideration to the needs of agriculture, food security and nutrition therein.

Water-use efficiency and resilience

d) We encourage responsible public and private **investment** to conserve, protect and ensure the sustainable use of water, in particular investment in water management, irrigation systems, water storage, manure management, soil health, land-management practices and agricultural innovation. We encourage in this regard the constitution of Public-Private Partnerships. We strongly recommend that investments for this purpose respect policy guidance such as the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT), the Principles for Responsible Investment in Agriculture and Food Systems (CFS-RAI) and the OECD-FAO Guidance for Responsible Agricultural Supply Chains.

e) We aim to improve plant and animal **breeding** to enhance water-use efficiency and resilience. We note there is a considerable need for conserving, sustainably using and providing access to the genetic diversity of animals and crops and related wild species. We acknowledge the importance of the corresponding activities undertaken by international bodies such as the FAO Commission on Genetic Resources for Food and Agriculture

(CGRFA), CGIAR and the G20 International Wheat Initiative and take note of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) to this end. We promote fair and equitable sharing of the benefits arising from the utilisation of genetic resources and promote appropriate access to such resources, as internationally agreed. We aim to enhance and better link up activities on the evaluation and utilisation of genetic resources for research and breeding related to water. Initially we will focus on the most important characteristics of water-use efficiency and drought stress and salt tolerance of crops, especially of crops with major relevance to global and regional food security and nutrition, building on the ongoing work of international institutions and networks such as the G20 Wheat Initiative in line with the Second Global Plan of Action for Plant Genetic Resources. Therefore we request FAO, through its technical committees, and CGIAR to make recommendations for strengthening international cooperation in that regard for further assessment and decision by G20.

f) We encourage the development of cost-effective agricultural **risk management** instruments which provide a clear framework for increasing the resilience of farmers to adverse weather events (such as droughts and floods) and climate change, without impeding necessary adaptation.

g) We commit to actions that reduce **food loss and waste**, acknowledging that such actions can alleviate pressure on water. We reaffirm our commitment to the G20 Technical Platform on the Measurement and Reduction of Food Loss and Waste, initiated under the Turkish Presidency, and to associated platforms in facilitating the prevention, reduction and measurement of food loss and waste at local, national and regional level.

Water Quality

h) We will **protect water** and water-related ecosystems by encouraging water-friendly, sustainable agricultural practices and technologies that enhance the water quality and resilience of water bodies. We are therefore committed to developing and implementing corresponding strategies at the national level.

i) We will **use, conserve and protect soils** in ways that prevent erosion, sedimentation and increased salinisation, creating a healthy soil ecosystem that supports water infiltration, carbon sequestration, carbon stocks, biomass production, appropriate organic matter levels and soil biodiversity. In this regard, we encourage the use of the Voluntary Guidelines for Sustainable Soil Management developed by the Global Soil Partnership. We take note of the 4 Per Mille Initiative: Soils for Food Security and Climate.

Information, Innovation and Collaboration

j) We call for the improvement of **data and information** for sustainable water and soil management, giving particular consideration to soil moisture, precipitation and groundwater. We need systematic surveys and analyses of the status and development of water resources in key agricultural production areas and watersheds to detect water risks (such as droughts,

flooding and pollution) at an early stage and take action to manage them. In doing so, we also aim to contribute to the monitoring of SDG 6. We encourage the Agricultural Deputies, with the support of relevant international organisations, to present an evaluation of existing data and information systems and to draw up recommendations in this regard for further decisions to be taken by G20.

k) We aim to increase support for **research** and **development** on agriculture and water, notably for water-efficient production methods and technologies, sea water desalination, application of brackish water, safe waste water reuse methods and riparian forest and rivershed conservation, taking advantage of the potentials of Information and Communication Technology (ICT) applications and considering the needs of vulnerable rural populations.

l) We encourage the **exchange of research outcomes, technologies** and **knowledge** on a voluntary basis between states and between the public and private sectors for the further development of sustainable water management, taking into account the special needs of developing countries. We invite the Meeting of Agricultural Chief Scientists (MACS) to analyse existing information-sharing platforms on the efficient use of water in food production and, if needed, facilitate the coordination of resources and initiatives. We call on the OECD, FAO, CGIAR and other international organisations to expand the G20-initiated analytical framework for improving agricultural productivity and sustainability to further embed water-related aspects.

m) We encourage measures for **awareness-raising**, initial and further training and voluntary transfer of knowledge, particularly with regard to water-efficient production methods and technologies and water scarcity conditions, taking into account local, traditional production systems, including those identified by FAO's Globally Important Agriculture Heritage Systems (GIAHS), to enable those employed in the agricultural sector to protect, use and manage water sustainably.

Information and communication technologies (ICT) in agriculture

4. We invite the responsible G20 Ministers for Digital Economy under the German Presidency 2017 to give due consideration to the needs of agriculture so that the sector may fulfil its role in addressing global issues.

5. We strive to advance ICT innovation and their application in the agricultural sector via private and public research and development including precision farming and analysis and use of big data, in order to enable farmers to tap the potentials of ICT to improve the efficiency and sustainability of their operations. We endorse national actions and policies to create a better environment for digital start-ups, especially for small and medium enterprises, that work on ICT solutions in agriculture. We invite the responsible G20 Ministers for Digital Economy to give the relevant aspects for instance data privacy, data security and improved cyber security due consideration.

6. We will strengthen our efforts to improve the ICT skills of farmers and farm workers via training, education and agricultural extension services with a particular focus on smallholders, women and youth.
7. We stress the need to provide farmers with the proper access to high-speed digital infrastructure and underline the importance of adequately supplying rural areas with the necessary services.
8. We will improve the connectivity of ICT applications and equipment in order to facilitate farmers' access to ICT solutions, and encourage standards-developing bodies to harmonise technical standards and norms (while respecting the intellectual property rights of the technology providers).
9. We support open-data initiatives, as they relate to the G20 open-data principles as adopted by G20 leaders in 2015, and encourage farmers' access to geo data and market information as these are highly important for optimised use of ICT systems in agriculture. We encourage sharing of experiences and good practices regarding ICT.
10. We appreciate the "ICT in Agriculture" report, prepared by FAO with inputs by IFPRI and OECD, and its recommendations on ICT applications, specifically the proposal for a Sustainable Agricultural Production Innovation Lab. We invite the G20 Agriculture Deputies to consider the report and its recommendations.

Research collaboration and knowledge sharing

11. We request MACS to build on the ongoing work on research collaboration and voluntary knowledge sharing aligned with the G20 open-data principles. We take note of MACS' ongoing work to set up a website and the ongoing work of the Agricultural Technology Sharing Working Group.

Agricultural Market Information System (AMIS)

12. We stress the need for the active involvement of the entire membership of AMIS and dedicate ourselves to deepen our collaboration and strengthen our efforts to ensure that AMIS continues to enhance transparency in global food markets through the provision of reliable, accurate and timely market data and policy information on a regular basis.
13. We will all strive to ensure that AMIS is strengthened as a mechanism that informs decisions and promotes the coordination of actions to overcome critical food market situations in accordance with the Terms of Reference concluded in September 2011. In this context, we undertake to continue support for GEOGLAM's activities on enhancing global agricultural monitoring using earth observations as a mechanism for the provision of timely and reliable information.

Combating Antimicrobial Resistance (AMR)

14. We commit to taking action to reduce the risk of diseases, prevent the unnecessary use of antibiotics², including the phasing out of antimicrobials as growth promoters in the absence of risk analysis, and promote good animal husbandry, management, biosecurity and biosafety in line with FAO Resolution 4/2015 on Antimicrobial Resistance.

15. We support the implementation of sustainable production methods in livestock husbandry and aquaculture (e.g. hygiene and biosecurity, vaccination) and crop cultivation methods that prevent the occurrence of diseases and physical or physiological disorders for which treatment with antimicrobials is necessary.

16. We will take proactive actions to promote the requirement that treatment with antibiotics² in livestock husbandry and aquaculture must be prescribed by veterinarians or other persons trained and authorised in accordance with the respective member countries' legislation and that, in crop cultivation, application of antibiotics must be in accordance with approved use by a competent authority.

17. We commit to conduct a transparent risk analysis in our countries as described in CAC/GL 77-2011³ on the use of antibiotics² as growth promoters in relation to the commitment to phase out the use of antibiotics² in food-producing animals for growth promotion in the absence of risk analysis in line with CAC/RCP 61-2005 or to launch road maps by 2020 for phasing out the use of antibiotics² in food-producing animals as growth promoters. We support the work by the Ad hoc Codex Intergovernmental Task Force on Antimicrobial Resistance including the scientific advice of the OIE, FAO and WHO.

² Noting differences in the G20 country definitions of the term “antibiotics” and referring here to those antibiotics with an impact on human health, including those antimicrobials that are critically important for human medicine as defined by the WHO.

³ Codex Alimentarius Commission / Guidelines 77-2011.