

Republic of Turkey
Ministry of Food Agriculture and Livestock

Overview of the 4th MACS in Turkey

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The 5th Meeting of G20 Agricultural
Chief Scientists
(MACS)
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Outline

- Agriculture in G20 Agenda
- Turkish G20 Presidency Priorities
- Important Deliverables
 - *Food Security and Nutrition Framework (Australian Presidency)*
 - *The Implementation Plan*
 - *2015 Agriculture Ministers Meeting*
 - *Action Plan*
 - *G20 Technical Platform*
 - ***The 4th Meeting of G20 Agricultural Chief Scientists (MACS)***
- Conclusion

Agriculture in G20 Agenda

- Population growth threatens the food security, sustainability of the water and other natural resources
- It is estimated that Global food supply will need to increase by 60 percent to feed a projected world population of 9.7 billion people by 2050.
- Effects and role of the food loss/food waste are getting higher and more important in the production and consumption



- 2011 French Presidency: “Food Price Volatility”
- 2012 Mexican Presidency: “Sustainable Agricultural Productivity Growth and Bridging the Gap for Small Family Farms”
- 2013 Russian Presidency: “Increasing Agricultural Production and Productivity”
- 2014 Australian Presidency: “Food Security and Nutrition Framework”
- **2015 Turkish Presidency: “Food Security and Sustainable Food Systems”**
- **2016 Chinese Presidency: “Agricultural Technology Innovation and Knowledge Sharing”**

Turkish Presidency Priorities

- promoting **investment** in infrastructure *in* agriculture and *for* agriculture, **investment** to increase agricultural productivity in low income developing countries (LIDCs)
- enhancing **productivity** and **human capital** in **smallholder agriculture** in low income developing countries (LIDCs), focus on youth
- advancing efforts on reducing **food losses and food waste**
- **mainstreaming** food security and nutrition in other G20 tracks of work

Food Loss and Waste

- This is a global problem of great economic, environmental and societal significance.
- According to the United Nations Food and Agriculture Organization (FAO), 1.3 billion tons of food, worth almost 1 trillion USD, is wasted and lost every year.
- Issues related to food and nutrition security among the thematic priorities in its G20 agenda
- Focus on achievement of more sustainable food systems and the reduction of food loss and waste (FLW)

Reducing food losses and waste in Turkey

- Turkey has launched a very important campaign in 2013, targeting to prevent bread waste and have gained very successful outcomes.
- Up to now, daily bread waste and total consumption has decreased 18% and 10%, respectively.
- As a result, national economy has gained 2.8 billion TL (1.04 billion USD) savings in one year.
- Thus, as the G-20 2015 Presidency, besides the issues related with agriculture, food security and nutrition, Turkey decided to attract attention to the crucial importance of reducing FLW.

Under the Presidency of Turkey,

- The G20 Development Working Group (DWG) recognized the need for an **Implementation Plan for the G20 Food Security and Nutrition (FSN) Framework.**
- And the Implementation Plan has been developed**
- It mainly prioritized practical actions in the areas
 - 1) responsible investment
 - 2) incomes and employment
 - 3) sustainable productivity growth including the reduction of FLW

Agriculture Ministers Meeting in İstanbul, 2015

They agreed on a “Communique” regarding “Food Security and Sustainable Food Systems”.

“Food Security and Sustainable Food Systems”

- actions to reduce food losses and waste
- enhancing employment and income in rural areas by improving the participation of female and young farmers in agriculture sector
- reducing poverty
- stressing the role of private sector in improving sustainable efficiency
- other issues of importance to G20 members

G20 Action Plan on Food Security/Sustainable Food Systems

- In line with the request of the Agriculture Ministers Communiqué,
- **Draft Action Plan**, mainly considering conclusions of implementation plan and the Ministerial Communiqué were prepared and **presented at the 3rd Agriculture Deputies Meeting held in Izmir on 2-3 July, 2015.**
- **In this meeting, action plan was broadly discussed** and revised according to the views and contributions of the participants.

G20 Technical Platform on the Measurement and Reduction of Food Loss and Waste-I

2015 Ministerial Communiqué mandated establishment of a platform, with cooperation of FAO, IFPRI and other relevant international organizations

- improving coherence and consistency in the measurement of FLW
- raising awareness
- promoting approaches for FLW reduction by sharing successful experiences and best practices with cooperation FAO, IFPRI and other relevant international organizations

G20 Technical Platform on the Measurement

and Reduction of Food Loss and Waste-II

- Launching of technical platform on measurement and reduction of food loss and waste was organized in 4 December 2015 in Rome
- A side-event was also organized in 5 May 2016 in the 30th session of the FAO Regional Conference for Europe in Antalya
- These events are crucial in raising awareness among member countries for the need to coordinate global efforts in measuring and reducing food loss and waste

G20 Agriculture Ministers remarked in the 2015 Ministerial Communiqué that

- **MACS has an important role** to play in promoting international collaboration **to identify global research priorities**, such as jointly addressing
- **climate change and food security,**
- **efficient use of natural resources, and**
- **improving soil fertility,**

The 4th Meeting of G20 Agricultural Chief Scientists (MACS) in Izmir, Turkey on 27-29 July 2015

- **The impact of agricultural research on food security and issues related to reduce food loss and waste were mainly discussed**
- **Delegations from G20 countries and G20 guests;** Australia, Canada, China, European Union, France, Germany, Italy, Japan, Russia, Spain, United Kingdom, United States of America
- **International Organizations;** CGIAR, CIHEAM, FAO, GFAR, ICARDA, OECD, The Wheat Initiative

The 4th Meeting of G20 Agricultural Chief Scientists (MACS)-II

- **MACS agreed to establish a working group** which will explore the alignment of research priorities and collaboration with the aim of reducing gaps and avoiding duplication with due consideration to other existing efforts e.g., by FAO/WHO/OIE and STAR-IDAZ
- **MACS also agreed to support FAO, IFPRI, and other relevant international organizations** to develop the platform mentioned in the Ministers Communiqué and share information and experiences relating to agricultural science and technology in measuring and reducing FLW

Support of Ministry of Food Agriculture and Livestock (MFAL)

MFAL supports

- South South Cooperation via following International organizations or TIKA (Turkish Cooperation and Coordination Agency) on project basis or by membership.
- FAO Sub Regional Office -Ankara
- COMCEC (Standing Committee for Economic and Commercial Cooperation of the Organization of Islamic Cooperation) -Ankara
- CGIAR Centers (CIMMYT, ICARDA, CIP, ICRISAT, IRRI)
- IFAD
- AARINENA (Association of Agricultural Research Institutions in the Near East and North Africa)
- CIHEAM (International Center for Advanced Agricultural Studies)
- ECP/GR (European Cooperation Programme for Genetic Resources)
- WI (Wheat Initiative)

The 4th Meeting of G20 Agricultural Chief Scientists (MACS)-III

Delegates emphasized

- the importance of ensuring continuity of MACS' work
- The importance of the G20 troika process



The G20 troika process

- **MACS emphasized** the importance of the G20 troika process for strengthening collaboration and maintaining continuity for MACS.
- I. Agricultural Research, Innovation and Investment
- II. Agricultural Research Related to Food Loss and Waste (FLW)



I- Agricultural Research, Innovation and Investment

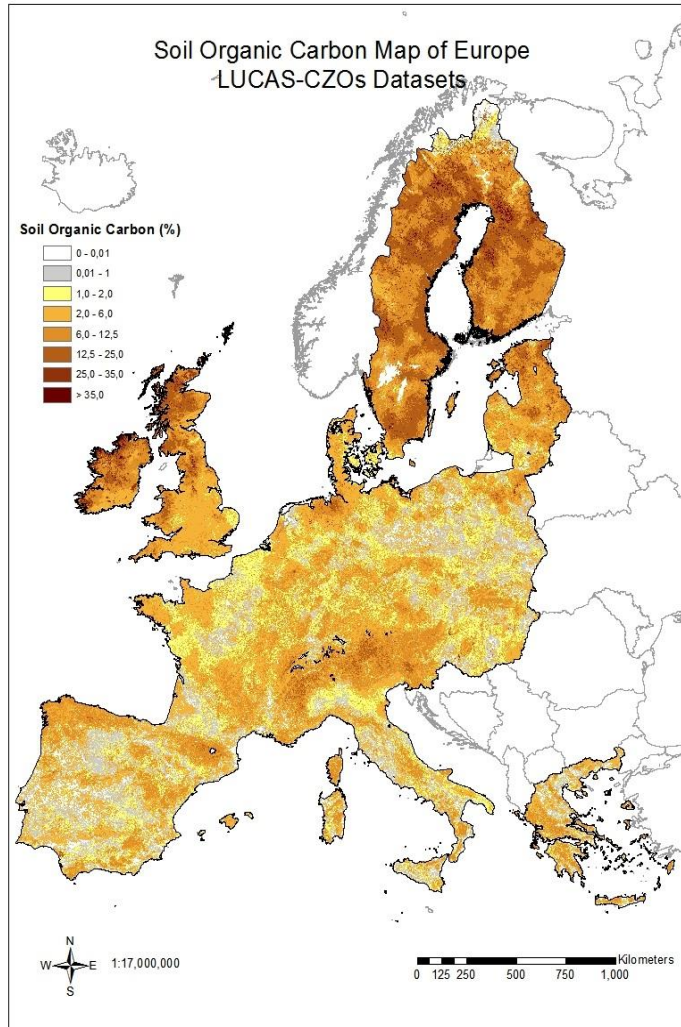


- To support the promotion of international collaboration in key areas likely to drive sustainable productivity gains and reduce losses, MACS agreed to build on the findings of the G20 MACS Research Priority Mapping Exercise by establishing a working group led by UK of interested countries focusing on animal diseases, in particular high priority vaccines
- The Working Group will explore the alignment of research priorities and collaboration with the aim of reducing gaps and avoiding duplication with due consideration to other existing efforts e.g., by FAO/WHO/OIE and STAR-IDAZ

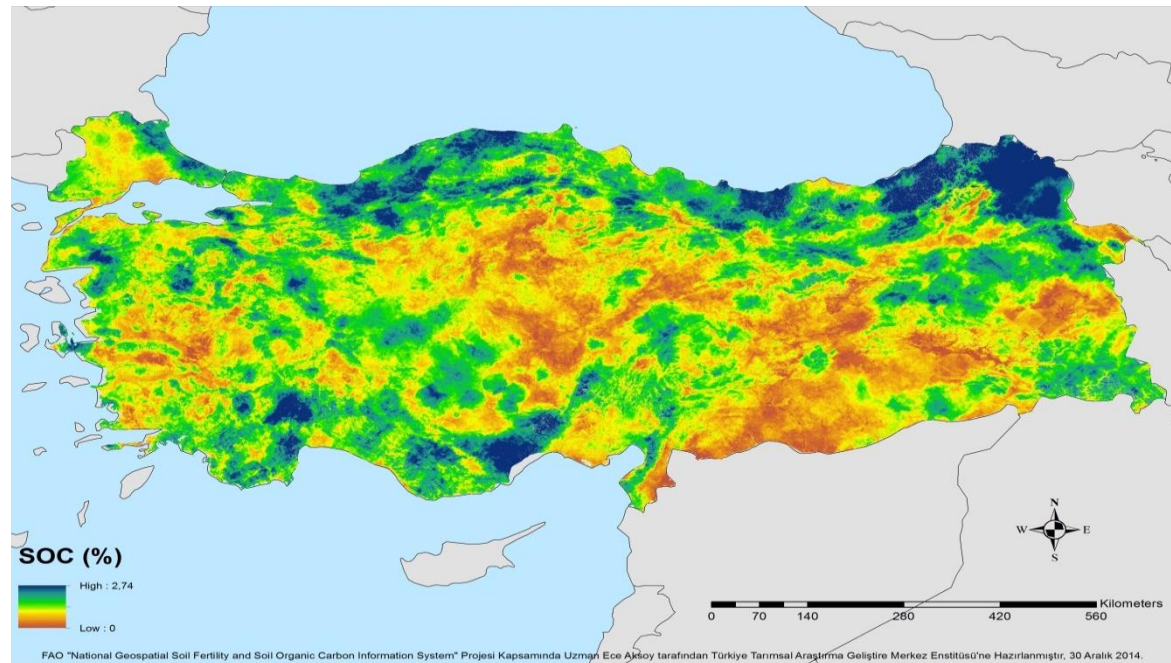
MACS noted significant similarities in priorities across countries, such as

- pest and disease management,
- new technologies,
- integrated systems,
- **resilience to climate change,**
- **land, soil and water management,**
- **and data sciences.**

Turkey- FAO GSP-UNCCD COP 12 Soil Degradation Neutrality



National Geospatial Soil Fertility and Soil Organic Carbon Information System has been prepared . Projects' main outputs soil organic carbon map (SOC) (Updatable)



II- Agricultural Research Related to Food Loss and Waste (FLW)

- **MACS also agreed to support FAO, IFPRI, and other relevant international organizations to develop the platform** mentioned in the Ministers Communiqué and share information and experiences relating to agricultural science and technology in measuring and reducing FLW
- **MACS agreed that a subset of members, led by Germany** and in consultation with FAO and IFPRI, **would conduct a preliminary mapping of their existing science and technology activities related to FLW**, so as to contribute to enhanced information sharing and global coordination
- www.global-flw-research.org : The main objective is to provide a comprehensive global survey on scientists working on FLW reduction approaches and on their relevant research activities

On-farm losses in OIC countries

- Existing literature cites on-farm losses throughout Africa, Asia, and the Middle East as ranging from 23-39%.
- Globally, the highest on-farm losses have been described for fruits and vegetables,
- followed by cereals in South and Southeast Asia and
- roots and tubers in Sub-Saharan Africa.
- When converted into calories, global food loss and waste amounts to approximately 24 percent of all food produced.

Collaboration priorities

❑ Food Losses

- On farm (23-39%, in Africa, Middle East and Asia)
 - During production and harvest
 - ❖ Fertilizing, irrigation, pest management, proper harvest machinery and methods
- Post Harvest
- Food Waste





Conclusion



Two most important outcomes of the Turkish term presidency;

- 1) “Action Plan in Food Security and Sustainable Food Systems“
- 2) “The Technical Platform for Measurement of G20 Food Loss and Waste”

should be paid particular attention in reducing food loss and waste for maintaining food security



Thanks
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