

Climate Change and Food System

– synergies of adaptation and mitigation, and advanced utilization of climate information for sustainable and climate-resilient agriculture

Organized by NARO and FFTC

Hybrid type (onsite in Tsukuba, Japan, and online)

Day 1 10:00 – 17:40 (GMT +9), October 17, 2022

Day 2 10:00 – 17:20 (GMT +9), October 18, 2022

Day 3 10:00 – 17:00 (GMT +9), October 19, 2022

Venue: International Congress Center, Tsukuba Ibaraki, Japan

Symposium Program

Day 1 October 17, 2022 (Monday), **10:00 – 17:40** (GMT +9, Japan Standard Time)

Time (GMT+9)	Topics and speakers	Note
9:30 – 10:00	Registration & Online login	
10:00 – 10:15	Welcome and Opening Remarks Welcome Remarks KYUMA Kazuo (NARO) CHANG Su-San (FFTC) Congratulation message Reynaldo V. EBORA (DOST-PCAARRD)	
10:15 – 10:30	The OECD's Co-operative Research Programme NAKAYAMA Ichiro (OECD)	
10:30 – 10:40	Group Photo	
	Plenary Session Messages from the WGII contribution to IPCC AR6 Moderator: SHIRATO Yasuhito	1hr 30 min
10:40 – 11:10	Topic 1: Observed impacts and projected risks from the new climate report HASEGAWA Toshihiro (NARO, Japan)	30 min
11:10 – 11:40	Topic 2: Adaptation solutions for climate resilient development in food systems Rachel BEZNER KERR (Cornell University, USA)	30 min
11:40 – 12:10	Topic 3: How rice can contribute to solving the climate crisis Bjoern Ole SANDER (IRRI, Viet Nam)	30 min

12:10 – 13:15	Lunch Break	1 hr 05 min
Session 1	Adaptations to climate change in the food system; enhancing synergies and breaking trade-offs between adaptation, mitigation, and ecosystem services	
	Session 1-1 Observed impacts and projected risks from climate change Moderator: HASEGAWA Toshihiro	2hr 05 min
13:15 – 13:40	Topic 1: Climate change impacts and adaptation cost to global crop production IIZUMI Toshichika (NARO, Japan)	25 min
13:40 – 14:05	Topic 2: Future impacts of heat stress on domesticated livestock Philip THORNTON (Clim-Eat. Org.,UK) Online	25 min
14:05 – 14:30	Topic 3: Climate change impacts on forestry systems Rodel LASCO (World Agroforestry Centre (ICRAF) and Oscar M Lopez Center, the Philippines) Online	25 min
14:30 – 14:55	Topic 4: Climate change impacts on wild foods in tropical and sub-tropical food systems Indra BHATT (GB Pant National Institute of Himalayan Environment, India)	25 min
14:55 – 15:20	Topic 5: Impacts and adaptation options for climate variability and extremes in aquatic systems Helen GURNEY-SMITH (Fisheries and Oceans Canada, Canada)	25 min
15:20 – 15:35	Coffee Break	15 min
	Session 1-2 Adaptation to climate change Moderator: Rachel BEZNER KERR	2hr 05 min
15:35 – 16:00	Topic 6: Research trends and gaps in climate change impacts and adaptation potentials in major crops WAKATSUKI Hitomi (NARO, Japan)	25 min
16:00 – 16:25	Topic 7: Adaptation in cropping systems: transformative change or business as usual Aidan D. FARRELL (The University of the West Indies St. Augustine, Trinidad and Tobago) Online	25 min
16:25 – 16:50	Topic 8: Increasing resilience of cropping systems to climate change through technology innovations in China JU Hui (China) Online	25 min
16:50 – 17:15	Topic 9: Viability of mixed systems as buffers for climate change Emily BAKER (Cornell University, USA) Online	25 min
17:15 – 17:40	Topic 10: Transformational adaptation in ocean fisheries Salvador E. LLUCH-COTA (Center for Biological Research of the Northwest, Mexico) Online	25 min

Day 2 October 18, 2022 (Tuesday), 10:00 – 17:20 (GMT +9)

Time (GMT+9)	Topics and speakers	Note
	Session 1-3 Integrated assessment of adaptation and mitigation Moderator: SHIRATO Yasuhito	3hr 55 min
10:00 – 10:25	Topic 1: The limits to adaptation in agriculture: Physics, chemistry, and human behavior Gerald C. NELSON (University of Illinois Urbana-Champaign, USA) Online	<i>25 min</i>
10:25 – 10:50	Topic 2: Food security implications of climate change mitigation FUJIMORI Shinichiro (Kyoto University, Japan) and HASEGAWA Tomoko (Ritsumeikan University, Japan) Online	<i>25 min</i>
10:50 – 11:15	Topic 3: Roles of farmers, scientists, and extension staff in technology development for climate change adaptation in Hokkaido, Japan HIROTA Tomoyoshi (Kyushu University, Japan)	<i>25 min</i>
11:15 – 11:40	Topic 4: The potential of agroecology as a climate change adaptation and mitigation approach Rachel BEZNER KERR (Cornell University, USA)	<i>25 min</i>
11:40 – 12:05	Topic 5: Synergy of mitigation and adaptation by soil C sequestration: potentials and challenges WAGAI Rota (NARO, Japan)	<i>25 min</i>
12:05 – 13:45	Lunch Break	<i>1 hr 40 min</i>
13:45 – 14:10	Topic 6: Alternative sources of protein for food and feed Philip THORNTON (Clim-Eat. Org., UK) Online	<i>25 min</i>
14:10 – 14:20	Break (Preparation for wrap-up)	<i>10 min</i>
14:20 – 15:20	Wrap-up discussion	<i>60 min</i>
15:20 – 15:40	Coffee Break	<i>20 min</i>
Session 2	Impacts of climate change on small-scale agriculture in Asia and effective adaptation and mitigation using climate information services	
	Session 2-1 Adaptation, mitigation, and social implementation Moderator: WATANABE Tomonari	1hr 40 min
15:40 – 16:00	Topic 1: Climate change impacts and adaptations of smallholder farmers in Southeast Asia: A systematic review Juan M. PULHIN (University of the Philippines Los Baños Philippines) Online	<i>20 min</i>
16:00 – 16:20	Topic 2: NARO's initiatives to accelerate the Sustainable Food Systems Strategy (MeaDRI) in Japan HARADA Hisatomi (NARO, Japan)	<i>20 min</i>

16:20 – 16:40	Topic 3: Strategic roadmap to Net-Zero in Taiwan's agriculture sector by 2040 JUANG Lao-Dar (Council of Agriculture, Taiwan)	20 min
16:40 – 17:00	Topic 4: Climate change responses in Korean agricultural sector SUNG Jae-Hoon (Korea Rural Economic Institute, Korea) Online	20 min
17:00 – 17:20	Q&A Discussion	20 min

Day 3 October 19, 2022 (Wednesday), 10:00 – 17:00 (GMT +9)

Time (GMT+9)	Topics and speakers	Note
	Session 2-1 (continued) Adaptation, mitigation, and social implementation Moderator: NISHIMORI Motoki	1hr 20 min
10:00 – 10:20	Topic 5: Managing synergies and conflicts between climate change adaptation and mitigation: several case studies in China TAO Fulu (IGSNRR/CAS, China) Online	20 min
10:20 – 10:40	Topic 6: Research and implementation of climate smart agriculture (CSA) practices in Malaysia Mohammad Hariz bin Abdul Rahman (MARDI, Malaysia)	20 min
10:40 – 11:00	Topic 7: Impact of climate change on food security and co-benefit of adaptations and mitigations in Thailand Witsanu ATTAVANICH (Kasetsart University, Thailand)	20 min
11:00 – 11:20	Q&A Discussion	20 min
11:20 – 12:00	Poster Presentation	40 min
12:00 – 13:20	Lunch Break (poster presentation)	1hr 20 min
	Session 2-2 Impacts and adaptation utilizing climate information over the Asia Moderator: Witsanu ATTAVANICH	1hr 20 min
13:20 – 13:40	Topic 1: An integrated study of climate impacts and adaptation on rice production and quality in Japan using regional climate change scenarios NISHIMORI Motoki (NARO, Japan)	20 min
13:40– 14:00	Topic 2: Adapting to climate change precisely through cultivars renewal for rice production across China: When, where, and what cultivars will be required? ZHANG Zhao (Beijing Normal University, China) Online	20 min
14:00 – 14:20	Topic 3: Supporting local adaptation of consolidated smallholder and marginal Filipino farmers through co-production of tailored climate information service Perla G. BALTAZAR (Department of Agriculture, Philippines) Online	20 min

14:20 – 14:40	Q&A Discussion	20 min
14:40 – 15:00	Coffee Break	20 min
	Session 2-2 Impacts and adaptation utilizing climate information over the Asia Moderator: JUANG Lao-Dar	1hr 20 min
15:00 – 15:20	Topic 4: Modeling the impacts of climate change on soybean and maize production in Taiwan CHEN Chu-Chung (Taiwan Agricultural Research Institute, Taiwan)	20 min
15:20 – 15:40	Topic 5: Assessment of climate suitability for <i>Coffea Robusta</i> in Asia using monthly gridded climate data KIM Kwang-Soo (Seoul National University, Korea) Online	20 min
15:40 – 16:00	Topic 6: Impact of climate change on Japan's fruit industry and adaptation measures SUGIURA Toshihiko (NARO, Japan)	20 min
16:00 – 16:20	Q&A Discussion	20 min
16:20 – 16:50	Wrap-up of symposium Moderators: YAMAMOTO Shori (NARO) CHANG Su-San (FFTC)	30 min
16:50 – 17:00	Closing Remark IDE Makoto (NARO) WATANABE Tomonari (FFTC)	10 min