

OFFICIAL FEEDBACK FORM

DIALOGUE DATE	Wednesday, 7 July 2021 15:00 GMT +07:00
DIALOGUE TITLE	Microbiome Supporting Regenerative Agriculture
CONVENED BY	National Science and Technology Development Agency (NSTDA) and IBG-2 Plant Sciences, Forschungszentrum Jülich
DIALOGUE EVENT PAGE	https://summitdialogues.org/dialogue/28575/
DIALOGUE TYPE	Independent
GEOGRAPHICAL FOCUS	No borders

The outcomes from a Food Systems Summit Dialogue will be of use in developing the pathway to sustainable food systems within the locality in which they take place. They will be a valuable contribution to the national pathways and also of interest to the different workstreams preparing for the Summit: the Action Tracks, Scientific Groups and Champions as well as for other Dialogues.

1. PARTICIPATION

TOTAL NUMBER OF PARTICIPANTS

198

PARTICIPATION BY AGE RANGE

0-18

19-30

31-50

51-65

66-80

80+

PARTICIPATION BY GENDER

54 Male

73 Female

71 Prefer not to say or Other

NUMBER OF PARTICIPANTS IN EACH SECTOR

3 Agriculture/crops

Fish and aquaculture

Livestock

Agro-forestry

1 Environment and ecology

1 Trade and commerce

104 Education

Communication

Food processing

Food retail, markets

2 Food industry

1 Financial Services

2 Health care

Nutrition

1 National or local government

Utilities

Industrial

83 Other

NUMBER OF PARTICIPANTS FROM EACH STAKEHOLDER GROUP

Small/medium enterprise/artisan

2 Large national business

Multi-national corporation

Small-scale farmer

Medium-scale farmer

3 Large-scale farmer

Local Non-Governmental Organization

International Non-Governmental Organization

Indigenous People

114 Science and academia

Workers and trade union

Member of Parliament

1 Local authority

45 Government and national institution

Regional economic community

4 United Nations

1 International financial institution

3 Private Foundation / Partnership / Alliance

Consumer group

25 Other

2. PRINCIPLES OF ENGAGEMENT

HOW DID YOU ORGANIZE THE DIALOGUE SO THAT THE PRINCIPLES WERE INCORPORATED, REINFORCED AND ENHANCED?

All stakeholders, i.e., government, academic, research institutes and companies have involved in this dialogue. We have panel discussion which allows invited stakeholders to participate.

HOW DID YOUR DIALOGUE REFLECT SPECIFIC ASPECTS OF THE PRINCIPLES?

Panel discussion session was included to allow speakers reflect their ideas and respond to some questions from audiences.

DO YOU HAVE ADVICE FOR OTHER DIALOGUE CONVENORS ABOUT APPRECIATING THE PRINCIPLES OF ENGAGEMENT?

No further advice.

3. METHOD

The outcomes of a Dialogue are influenced by the method that is used.

DID YOU USE THE SAME METHOD AS RECOMMENDED BY THE CONVENORS REFERENCE MANUAL?

Yes

No

As our topics involved several stakeholders who are from different backgrounds, it is important to have a brief slot for each speaker to share their knowledge and idea and allow audiences to be on the same page. Panel discussion is another important activity which allow all speakers interact and share more thought on the complex issue such as microbiomes.

4. DIALOGUE FOCUS & OUTCOMES

MAJOR FOCUS

Food System is an interconnection of activities in food supply chains from upstream to downstream. It involves cultivation, harvest, processing, distribution, consumption and waste management. The food supply chain can be categorized into either the domestic chain or the globalized chain. The domestic chain or garden to table has fewer activities and actors, while the globalized chain consists of multiple steps and players.

Traditional food system is a linear supply chain, consuming large volume of resources with very little to no material recirculation. It has become a global challenge to develop a circular food supply chain.

Nowadays, we have only 10 years in which to deliver the 2030 Sustainable Development Goals, but the impacts of our current food systems on nature and climate is limiting our ability to achieve them. Current food system is responsible for resource depletion, diversity loss and adverse environmental impact. To achieve a sustainable food system, food system transformation is necessary, additionally technology and innovation to protect, manage, and restore nature must be adopted to achieve nature-positive food production system.

Regenerative agriculture is a system of agricultural practices and principles that support biodiversity, enrich soils, improve watersheds, and increase the capacity of the soil to capture carbon, contributing to the reversal of global warming. Regenerative agriculture itself is not a specific practice, but rather a variety of sustainable agriculture techniques used in combination. For example, the use of biocontrol / biofertilizer / the interaction of microbes and plants and microbiome.

ACTION TRACKS

- Action Track 1: Ensure access to safe and nutritious food for all
- Action Track 2: Shift to sustainable consumption patterns
- Action Track 3: Boost nature-positive production
- Action Track 4: Advance equitable livelihoods
- Action Track 5: Build resilience to vulnerabilities, shocks and stress

KEYWORDS

- Finance
- Innovation
- Human rights
- Women & Youth Empowerment
- Policy
- Data & Evidence
- Governance
- Trade-offs
- Environment and Climate

MAIN FINDINGS

Key factors that support regenerative agriculture is microbiome and microorganisms. It is important to promote the use of "good" microorganisms in sustainable agriculture. It will be beneficial to human health and environment. Collaboration among all stakeholders are necessary to support regenerative agriculture.

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OUTCOMES FOR EACH DISCUSSION TOPIC - 1/6

Food Systems Microbiomes – Improving Sustainability of Food Production

Microbiomes and microorganisms are the diversity of microorganisms. They play many important roles in food chain and food system. Microbiomes is also important for food system sustainability and effect on food quality. Microorganisms are key factor for human health, nutrition, well-being and stress tolerance. In plants, microbiomes play important role in nutrient cycling and stress tolerance.

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KEYWORDS

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|--------------------------|---------------------------|-------------------------------------|-------------------------|
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OUTCOMES FOR EACH DISCUSSION TOPIC - 2/6

Industrial Perspectives on Regenerative Agriculture.

Nowadays, farmers face with many challenges, include climate change and loss of biodiversity. The sustainable agriculture production consists of 3 interacting pillars: economy, ecology and social. Farming system consists of 3 factors: farm management, cropping system and integrated solutions. Collaboration is a key to reach a sustainable agriculture system to implement and further development systemic approach.

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OUTCOMES FOR EACH DISCUSSION TOPIC - 3/6

Natural Plant Elicitor for Crop Protection.

Chemical plant protection causes of the impact on toxic contamination in farmers, consumers, soil, water, and environment. According to those problem, Green Innovative Biotechnology, Co., Ltd. Invested the natural plant vaccine for crop protection. This elicitor product can decrease risk of damage plant protection and replace or reduce of chemical fertilizers, insecticides, and antibiotics. It increases quality and quantity of cultivation plants.

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OUTCOMES FOR EACH DISCUSSION TOPIC - 4/6

Comparative Metagenomics Reveals Microbial Signatures of Sugarcane Phyllosphere in Organic Management.

Excessive use of fertilizer and pesticide effect on ecosystem degradation and climate change. How to restore ecosystem with microbial function? There are 2 major microbiome zones in plants which are Rhizosphere and Phyllosphere. The talk focused on the Phyllosphere microbiome in sugarcane plant field. comparing the microbial profile between conventional farming and organic farming., Organic farming had many beneficial microbes and much higher diversity of microbes then what was found in conventional farming.

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OUTCOMES FOR EACH DISCUSSION TOPIC - 5/6

Microbes on ASEAN's Agriculture and Food Production, Nutrition and Security.

Food is not only considered as a nutrition, but it is something that touches emotions ("makes you feel happy"); for example, colour, flavour and substantial which touched emotions. The joy of eating is not for health, but includes happiness. Fermented foods are a part of human cuisine culture, and the fermented foods are essential for regenerative agriculture. Bacteria in fermented food provides essential components for the functional activities in human health.

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OUTCOMES FOR EACH DISCUSSION TOPIC - 6/6

Thailand's pathway to Sustainable and Equitable Food System.

To transform the conventional farming to sustainable agriculture, the national policies and activities need to be enhanced and implemented. However, we already have strategies, knowledge, excellent scientists, organizations and disciplines, but we are not achieving the food sustainable goal. Collaboration among different stakeholders is very important to bring solutions to shape the national pathway.

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AREAS OF DIVERGENCE

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ATTACHMENTS AND RELEVANT LINKS

RELEVANT LINKS

- **Microbiome Supporting Regenerative Agriculture**
<https://www.youtube.com/watch?v=RzI36QI2cms&t=17s>