

INVITATION to DIGITAL INNOVATION DIALOGUE : SESSION 9

FAO-UNDP Youth Digital Solutions for Food and Agriculture

29 July 2020, 10:00-11:30 hours (Rome Time)



We live in a time of digital transformation and it is driving change in all areas. Agriculture is no exception. Additionally, the COVID-19 pandemic has increased food insecurity globally, given the disruptions in our supply chains. There are many tools and technologies that can help farmers in developing countries adopt more efficient and sustainable production methods, reduce the burden of labour-intensive tasks, and manage their farms better to help build a more resilient, sustainable and productive food system.

The FAO has put efforts of building Digital Agriculture and Innovation Hubs and been working closely with the UNDP Global Centre in Singapore to explore and identify technological and innovative solutions to address specific agricultural challenges in developing countries, to attract startups and R&D teams from around the world to improve on and implement their solutions at scale, to enhance knowledge and practice sharing between developing and developed countries.

The 9th Session of **Digital Innovation Dialogue** invites colleagues from the UNDP Global Centre and selected finalists of the Cultiv@te programme together with FAO's selected innovation challenge winner teams to pitch their solutions. These solutions include technologies for smart farming, food loss and waste, decentralised agricultural machinery networks, urban farming and more. The Dialogue will address following questions:

- What are digital solutions have been explored and applied in the agriculture and food sector?
- How youth/start-ups harness digital technologies and tools to address challenges in the agriculture and food sector?

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AGENDA

10:00-10:05 hours: Opening speech, **Dejan Jakovljevic**, Deputy Director of CSI, FAO

10:05-10:45 hours: 1st round of roadshow of youth digital solutions followed by Q&A

10:45-11:25 hours: 2nd round of roadshow of youth digital solutions followed by Q&A

11: 25-11:30 hours: Closing speech, **Bradley Busetto**, Director of Global Centre for Technology, Innovation, and Sustainable Development, UNDP

Moderator

Meng Zeng, Information Technology Officer, FAO

Armen Harutyunyan, Senior Advisor on Digital and Sustainable Agriculture, UNDP

Presenting teams cover topics of digital solutions for productivity and sustainable agriculture, food loss and waste, urban farming, services and knowledge sharing, and agri-environment and.

Group 1: productivity and sustainable agriculture

1. [Agrosmart](#)

Agrosmart is a digital platform that collects data, processes it and delivers actionable insights, making data available across the food supply chain for a more climate resilient and sustainable agriculture. It generates market and agronomic intelligence based on seed genetics, soil type and microclimate. Agrosmart supports data-driven R&D and sales strategies to input companies and distributors, bringing transparency, sustainability and traceability to food and beverage industries and mitigating risks as well as bringing product differentiation to financial institutions and insurance companies.

2. **SAIL**

Founded in Egypt in 2018 and winner of the FAO Land and Water Days Hackathon, SAIL is an innovative early warning system to predict droughts and floods using weather forecasting data and geo-spatial modelling. The Near East and North Africa is more prone to droughts than any other region in the world and with the rapidly increasing impacts of climate change SAIL offers an important tool to support early response and resilience building in areas that are most at risk.

Group 2: food loss and waste

3. **Food for Life**

Based on the concept of sharing economic services, Food for Life App integrates blockchain, Internet of Things, and Artificial Intelligence technologies to work together to solve the fundamental problems of food loss and waste in the process of the food supply chain. The initial stage of the application will focus on solving the problem of sales of perishable food and unsaleable agricultural products for merchants and reduce food waste in these two

aspects. In the future, through the integration and analysis of data, Food for Life will further eliminate other expensive factors in the food supply chain, help build the entire life cycle management factors in the food supply chain, and achieve a sustainable agricultural development model.

Group 3: urban farming

4. [Citiponics](#)

Founded in 2015, Citiponics aims to enrich the lives of communities through sustainable farming technology, providing them with safe and pesticide-free food. Their proprietary vertical farming solution, the Aqua-Organic System, is able to grow pesticide-free produce efficiently with zero-wastes, while using minimal energy and water. They are the first commercial urban farming company in Singapore to sustainably produce leafy green vegetables using underutilised carpark rooftops.

Group 4: services and knowledge sharing

5. [Agromart](#)

Agromart is one of the few companies providing end-to-end solutions and services to the farming community in Uzbekistan. The Agromart team comprises varied backgrounds, from software engineers to fish farming experts, with a shared vision of helping farmers access knowledge and services. The company addresses this by providing advisory services to digitise farming practices, enabling access to suppliers, as well as to market. This allows farmers in remote areas to establish farming practices specific to their locations and get on-time advisory support for more sustainable agriculture.

6. [Hello Tractor](#)

Hello Tractor started a movement to revolutionise mechanisation services across emerging markets. They provide technology for tractor owners to better manage their equipment while offering farmers an app to request services from our connected tractor fleet. To date, they have grown their contractor customer base to over 3,000 tractors providing services to over 500,000 smallholder farmers, making them the largest digitally enabled tractor network in the emerging markets.

7. [iGrow](#)

iGrow is the first and biggest agriculture peer to peer lending platform in Indonesia. They provide a connection between farmers, off takers and lenders to create a feasible farming supply chain. They began their journey in 2014 and are currently operating in 7 islands across Indonesia. Since then, they have disbursed more than 14 million USD to many small farmers and helped better their livelihoods. More than just a peer to peer lending platform, iGrow is an integrator of agriculture resources; the platform provides farmers with market access, farming skills and capital.

Group 5: agri-environment

8. [Seawater Solutions](#)

Seawater Solutions is an agri-environmental start-up that turns degraded and salinised land into healthy saltmarsh ecosystems, where food is grown in seawater. Their global team

consists of environmental engineers and agriculturalists with a shared aim to address environmental conservation and food security through seawater farms. Seawater Solutions is also pioneering research into the applications of artificial saltmarsh ecosystems, partnering with academic institutions to develop applicable research into carbon sequestration, wildlife promotion, and regenerative crop production.

Digital Innovation Dialogue was launched in January 2019 to serve as a forum to enhance knowledge sharing and mutual learning between multidisciplinary innovation practitioners and FAO colleagues through open and informal discussions. The previous Digital Innovation Dialogue sessions have included workshops with Alibaba Cloud, IBM's The Weather Company, ESRI, National Telecommunication Agency in Brazil, Gartner, the Ministry of Agriculture and Rural Affairs of China, and blockchain start-ups. Topics include Digital Intelligence Platform, AI Products, Blockchain and Geospatial Technology for Agriculture, Gender Equality in Digital Transformation, Farmer Digital Identity and Data Ownership, and China's Experiences in Digital Agriculture and Digital Village. The Dialogue has hosted more than 600 participants on-site and online.