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IURC-CHINA WEBINAR | Sustainable Agriculture and Agri-food System

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Goal of this webinar is to share perspectives, policy initiatives and best practices on how cities and regions can effectively achieve the transition to green, circular and bio-based agriculture and resilient agrifood systems



Rita Merkle Cluster manager of IURC China

Developing sustainable agriculture and resilient agri-food systems is essential to reduce environmental impact, challenge climatechange and increase food safety. Numerous stakeholders are involved in this transition, which creates the need for strong and complex coordination.

The *EU* designed many targeted and cross-cutting policies that influence urban and peri-urban farming, food systems and sustainable agriculture development directly and indirectly. Examples are the **Common Agricultural Policy** (CAP), **Farm to Fork Strategy** and **European Regional Development Fund** (ERDF).

China designed many targeted and cross-cutting policies to foster a **productivity-centered** sustainable agriculture system that also influence urban and peri-urban farming. For example:

- National Sustainable Agriculture Development Plan (2015-2030)
- Development Plan of Digitalization of Agriculture and Rural Areas (2019-2025)
- Modern Agricultural Industrial Parks (MAPs)

Suggestions for future cooperation lie in the fields of urban agricultural planning, shortening food chains, multi-stakeholder involvement, holistic and integrated land use planning and synergies between waste, energy, water and food.

Sustainable urban agriculture in the EU and China

Both China and the EU prioritize the development of a

Differences in the role of the different stakeholders.

The concept of Urban and Peri-urban Agriculture is

In the EU metalevel benefits of Sustainable urban

In China, the promotion of a resource-efficient and

agriculture are more important than pure production,

objectives are mostly linked to environmental and social

ecologically sustainable agriculture has to be productive,

social value is secondary, and few bottom-up experiences

relatively new in both the EU and China

Similar challenges for agriculture: Food security challenges

including authorities and civil society > collective approach

sustainable agricultural system

and environmental challenges

to transition in the EU

objectives

"Sustainable agriculture as a topic has not yet fully found its way into policies in both regions. However, there are innumerable opportunities to be discovered in the cooperation between Europe and China on how to effectively achieve our mutual goals."

- Rita Merkle

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Zhengzhou

The city of Zhengzhou has broad experiences in the promotion of "leading enterprises" to expand the scale of agricultural industrialization and has established 28 agricultural industrial clusters, for example, important measures to foster **vertical food chain integration** and **agribusiness clustering**.

Science and Technology (S&T) development and the promotion of a **green agricultural** development are other important intervention fields of Zhengzhou.



Lazio region

Lazio region has presented two best practices that could be considered for further cooperation:

- 1. assessing and strengthening the **food control system**
- 2. combining peri-urban food production with **sustainable tourism**.

Consumer awareness and information are a crucial basis on which the relation between consumers and producers is built and should be supervised by authorities. Sustainability of production and food security sometimes compete, so counterbalancing these factors is key.



Hohhot

Hohhot also has extensive experience in the development of vertical chain integration and agribusiness clustering. Dragon head enterprises lead the **vertical integration** focusing on five industries, namely pig, maize, potato, dry crop miscellaneous grains and oilseeds as well as beef cattle, meat sheep and meat donkeys.

The construction of agribusiness clusters is focused on the dairy sector. Major challenges are:

- Forage security
- The equipment with modern
 agricultural machines



Western Greece Region

The Region of Western Greece can share a multitude of experiences in collaborative projects and initiatives to foster **sustainable agriculture** and **agri-food systems** including the fisheries and fish farming sector, for example:

- multistakeholder cooperation measures
- promotion of local food quality
- facilitation of innovation transfer

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Case studies: place-based strategies in innovation ecosystems



Haikou pursues five focal points of agricultural development with the development of large-scale projects focusing on locally adapted fruits, vegetables, crops, pigs and broilers, the establishment of modern **agricultural parks** also integrating tourism services, and a **greener development** of the sector.

The global need to evolve into sustainable agriculture is being recognized and sets Haikou's goal to transition into a **green circular ecofriendly** agri-food system.



Valencia Region

The Valencia region presented two best practices:

- **1**. Certified organic farming
- 2. Green enterprises

Organic land has expanded rapidly and an upward trend towards green farming has been detected.

These experiences could be further explored together and taken to a higher level through vocational training cooperation, **Research & Development** cooperation and other knowledge transfer projects.



Beijing

Beijing is creating an agricultural "Zhongguancun" through the development of an **Agricultural Science and Technology Innovation Demonstration Zone** with the Pinggu Agricultural Science and Technology Innovation Highland being one of its five innovation clusters.

It is based on a collaboration between government, research and business:

- Government-led
- Market-operated
- Research-supported

The municipality is striving to integrate more partners to create win-win collaboration.



Suzhou

Suzhou is fostering the **"Circular Development Model of Taicang"** based on mixed crop-livestock farming with organic fertilizer from sheep manure and rice and wheat straw as feed. Local organizations are actively involved in these processes.

 The major challenge is seen in introducing more modern techniques.

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cooperation should address the common challenges on the way to a robust and resilient agri-food system, namely the challenge of *food security*, the challenge of the *environment and climate*, and the challenge of *complexity* resulting from the high level of organization and coordination required between the different actors and policies.

The following focus areas are suggested for further discussion and exploration for collaborative actions:

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Food policies and governance:

- developing urban food policies and plans,
- developing coordination mechanisms to foster multi-stakeholder involvement and knowledge transfer,
- identifying, mapping and evaluating local initiatives,

Resource recovery and reuse:

- ensuring the safe use of waste and wastewater in (peri-) urban agriculture,
- supporting enterprises, jobs and circular business models
- supporting technical innovations on waste, food and energy
- developing municipal resource recovery strategies combining productivity with reduced environmental impacts,





Urban food production and value chains:

- holistic and integrated land use planning enhancing access to land and resources,
- promoting urban and peri-urban food production by supporting innovative farming systems,
- support of short food chains linking urban and nearby rural areas,
- assessing market demand and linking producers with consumers, e.g. in combination with tourism services,
- develop local multi-stakeholder cooperation mechanisms,
- building local capacity,

3 Food supply and distribution:

- assess, review and/or strengthen food control systems
- review public procurement to foster short supply chains
- assess the flows of food to and through cities to improve sustainable transportation and logistics planning, etc.
- developing sustainable dietary guidelines to inform consumers, food service providers, retailers, producers and processors,



Social and economic equity:

- developing school feeding programs providing healthy and local/regional food
- promoting youth employment and training and support of young farmers,

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Climate resilience and sustainability:

- develop a disaster risk reduction strategy to enhance the resilience of the urban food system
- developing frameworks and assessments to monitor and evaluate resilience
- supporting urban agriculture models fo climate-change mitigation and adaptatio