





Sustainable agriculture and Agrifood System in the EU and China – status quo and future directions of cooperation

中欧的可持续农业与农业食品体系——合作现状和未来方向

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Introduction: Rural-urban development and food systems



引言:农村一城市发展与食品体系

- 75% of the Europe population lives in cities and 64% in China, projected to reach 80% by 2050 in China
- 34% of the world's population lives in small cities or towns
- 70% of all food produced is designed for consumption in cites, e.g. in Shanghai, over 70% of fresh vegetables comes from outside the city.
- About 15-20% of the world's food is produced in urban areas.
- 30% of all greenhouse gas emissions stem from food production and distribution
- Urban and Periurban Agriculture (UPA) is practiced by more than 800 million people globally

- 欧洲有**75%** 的人口生活在城市,中国为**64%**,预计到**2050**年,中国城市人口比例将达到**80**%
- 全球34%的人口生活在小城市或城镇
- **70%** 的食品产出旨在满足城市消费,例如在上海,超过**70%**的新鲜蔬菜来自城外
- 全球约15%-20%的食品在城市地区生产
- 30%的温室气体排放来自于食品生产和销售环节
- 全球有8亿多人从事**都市农业和城郊农业(UPA)** 活动

EU Political frameworks

The EU designed many targeted and cross-cutting policies that influence urban and periurban farming, food systems and sustainable agriculture development directly and indirectly:

- Europe 2020 strategy (2010):
 - Fosters an integrated and inclusive approach to tackling local problems
 - goals of smart, sustainable and inclusive growth, fostering territorial cohesion
- The EU Green Deal (2019) and its Farm to Fork Strategy (2020):
 - ➤ Green Deal sets out to create an inclusive, competitive, and environmentally friendly future for Europe
 - > F2F is the agri-food sustainability agenda of the Green Deal
- European Union Urban Agenda (update in Nov. 2021):
 - Additional four new themes: **Greening cities**, Sustainable tourism, **Food** and Cities of equality.
- Legislative framework for sustainable food systems (2023):
 - comprehensive set of general principles and requirements on the sustainability of food systems

欧盟政治框架



欧盟制定了许多有针对性的跨领域政策,直接或间接地影响了都市和城郊农业、食品体系和可持续农业发展:

- 欧洲2020战略(2010):
 - ▶ 鼓励以综合和包容的方式解决本地问题
 - ▶ 制定智慧型、可持续和包容性增长目标,增强地域凝聚力
- 欧盟绿色新政(2019)及其"从农场到餐桌"策略(2020):
 - ▶ 绿色新政旨在为欧洲创造一个具有包容性、竞争力和 环保的未来
 - ▶ "从农场到餐桌"策略(F2F)是绿色新政下的农业食品 可持续性议程
- 欧盟城市议程(2021年11月更新):
 - ▶ 新增四个主题:绿化城市、可持续旅游、食品和平等 城市
- 可持续食品体系的立法框架(2023):
 - ▶ 关于食品体系可持续性一般原则和要求的全面立法

EU Political frameworks

欧盟政治框架



Common Agricultural Policy:

- Framework for sustainable agriculture in Europe, with one pillar for rural development measures.
- New programme incorporates the sustainable ambitions of the Green Deal, but Urban Agriculture not directly addressed.

European Regional Develoment Fund (ERDF):

- Focus on sustainable urban development offering chances for urban agriculture, but also supporting cooperation covering urban-rural linkages
- Research and Innovation Policy: Horizon 2020 and Horizon Europe
 - ➤ EU support of several multi-stakeholder research projects on Urban (and Periruban) Agriculture since 2010 highlighting the significance of UPA in the EU
- Milan Urban Food Policy Pact (2015):
 - > International protocol with high importance for Europe
 - Cities promote integrated food strategies that go beyond land planning

• 共同农业政策:

- ▶ 欧洲可持续农业发展框架,农村发展措施是其中一个支柱。
- ▶ 新方案囊括绿色新政的可持续发展目标,但没有直接涉及都市农业。

• 欧洲区域发展基金(ERDF):

▶ 对城市可持续发展的关注,为都市农业的发展带来机遇,同时也为城乡联系方面的合作提供支撑。

• 研究和创新政策: 地平线2020和地平线欧洲

➤ 自2010年以来,欧盟已支持多个关于都市(和城郊)农业的多利益相关者研究项目,凸显出都市农业和城郊农业(UPA)在欧盟的重要性。

• 《米兰城市食品政策公约》(2015):

- ▶ 对欧洲具有高度重要性的国际议定书
- ▶ 由城市推动的综合食品战略,不仅局限于土地 规划方面

Chinese Political frameworks

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

- Rural Revitalization Strategic Plan (2018-2022)":
 - Focus on rural areas to tackle problems like the rural-urban divide, food security, and poverty
 - ➤ Inclusion of green or sustainable growth
- National Five-Year Agriculture Plans (2011 2015, 2016 2020):
 - Integration of environmental concerns in modern agriculture agenda, but still rather limited
 - Promotion of the multifunctionality of agriculture in urban areas in the 2016 2020 plan
- National Sustainable Agriculture Development Plan (2015-2030) (long-term plan):
 - ➤ A guiding longer term document issued by eight central government agencies
 - Five major tasks are stipulated, including the promotion of locally adapted agriculture and circular agriculture
- "14th Five-Year Plan for Circular Economy Development" (2021-2025):
 - Cross-cutting plan, issued by the National Reform and Development Commission (NDRC)
 - ➤ In agriculture: Promotes the "deepening of the development of the agricultural circular economy and the introduction of agricultural circular production methods".

中国政治框架



中国制定了许多有针对性的跨领域政策,旨在培育以生产力为中心的可持续农业体系,同时也对都市农业和城郊农业产生了影响

- 乡村振兴战略规划(2018-2022年):
 - ▶ 重点关注农村地区,以解决城乡差距、粮食安全和贫困等问题
 - ▶ 包含绿色或可持续增长
- 全国农业农村发展五年规划(2011-2015年·2016-2020年):
 - ➢ 将环境问题纳入现代农业议程,但关注程度仍相当有限
 - ▶ 在2016-2020年规划中重点促进都市农业的多功能性
- 全国农业可持续发展规划(2015-2030年)(长期规划):
 - ▶ 中央政府八部委联合发布的长期指导性文件
 - 规定五项主要任务,包括因地制宜发展农业和循环农业
- "十四五"循环经济发展规划(2021-2025年):
 - ▶ 由国家改革和发展委员会(NDRC)发布的跨领域规划
 - 农业方面:"深化农业循环经济发展,建立循环型农业 生产方式"。

5

Chinese Political frameworks

中国政治框架



- Development Plan of Digitalisation of Agriculture and Rural Areas (2019–2025)
 - ➤ Sets the basis for China's Agriculture 4.0 with ecologicalisation, socialisation and the Internet as main characteristics
 - Objective is to use technology to ensure food security and rural revitalization
- Establishment of national and provincial ecological agriculture demonstration counties and sites:
 - ➤ Sites receive various subsidies and policy support from both the central and provincial government
- Modern agricultural industrial parks (MAPs):
 - ➤ In 2019, more than 114 national MAPS approved by the Chinese Ministry of Agriculture, 438 by 10/2021
 - Aims to facilitate the development of local smart agricultural business ecosystems and communities, including farmers, businesses and consumers.

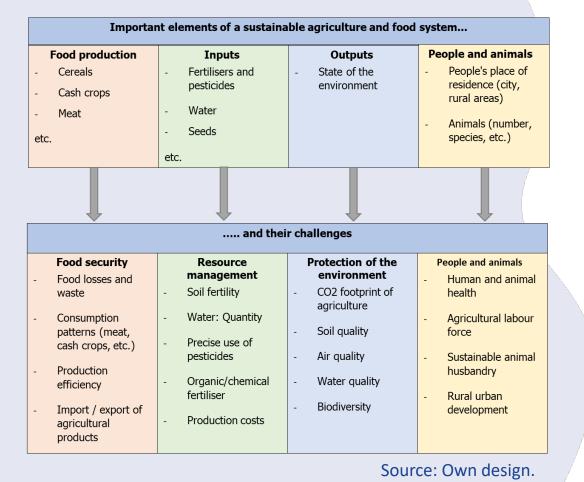
• 数字农业农村发展规划(2019-2025年)

- ▶ 为中国实现以生态化、社会化和互联网为主要特征的农业4.0奠定基础
- ▶ 目标是利用科技力量确保粮食安全,实现农村振兴
- 建立国家和省级生态农业示范县和示范点:
 - ▶ 示范点获得中央和省级政府提供的各种补贴和政策支持
- 现代农业产业园(MAP):
 - ➤ 截至2019年,中国农业农村部批准创建了114 个国家级现代农业产业园 , 2021年10月时达 到438个
 - ▶ 旨在促进各地智慧型农业企业生态系统发展, 促进包括农户、企业和消费者在内的农业社 区的发展。

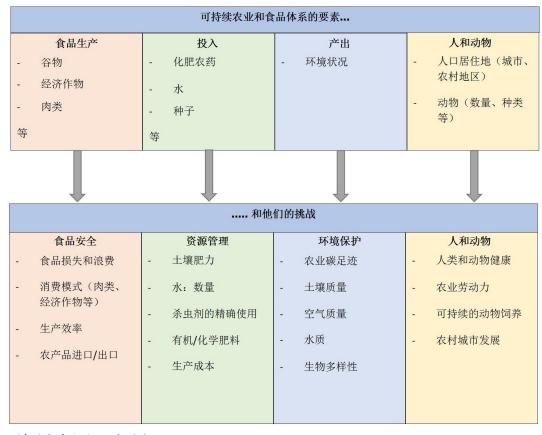
Challenges of a sustainable agricultural and food system

可持续农业与食品体系面临的挑战

→ Intra- and periurban farming systems have an important role to play in the transition towards a 'sustainable intensification' model



→ 都市农业和城郊农业体系在向"可持续、 集约化"模式转型的过程中发挥重要作用



资料来源: 自制

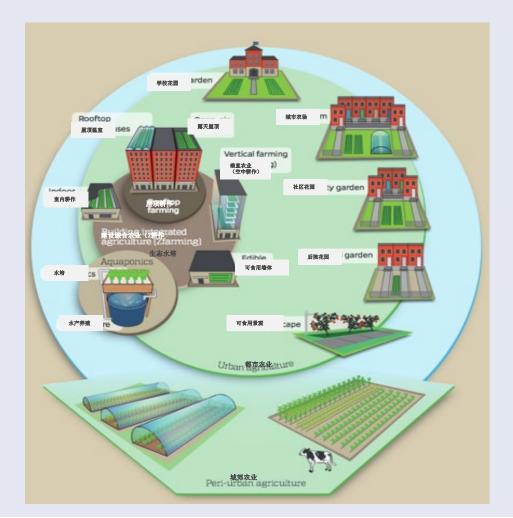
Scope of urban and periurban agriculture

都市农业和城郊农业的范围



Urban (and periurban) agriculture is a relative new concept which can be divided in two broad categories and with a vast scope....

都市(和城郊)农业是一个相对较新的概念,可以分为两大类且覆盖范围广阔....



Two categories: Urban Food Gardens and Urban Farming....

...having a vast scope:

两类:都市食物花园和都市农业....

...覆盖范围广阔:

- **❖** Location
- Type of production
- Scale level
- Individual vs. collective
- Degree of market orientation
- Professional vs. subsistence or hobby activity
- Integration with other production activities or services

- ❖ 所在地
- ❖ 生产类型
- ❖ 规模水平
- ❖ 个人 vs 集体
- ❖ 市场导向程度
- ❖ 专业活动 vs 生计活动 或兴趣爱好
- ❖ 与其他生产活动或服 务相结合

Sustainable urban and periurban agriculture: future challenges

可持续的都市农业和城郊农业:未来挑战



- Land tenure issues: Competitions for alternative uses of land, land ownerships, increased real estate values
- Resources: Water competition with other uses, energy costs
- Alignment with other policies: environmental regulations, agricultural policies etc.
- Social inclusion: Redevelop degraded or abandoned urban areas, creating terriortial cohesion, integrating vulnerable groups
- Political gouvernance
- It is a multi-layering concept with different stakeholders, different policies and different tools involved

• 土地产权问题: 以改变土地用途为目的的竞争、土地所有权、农地地产升值

- 资源: 与其他用途竞争水资源、能源成本
- 与其他政策保持一致:环境法规、农业政策等
- 社会包容性: 重新开发退化或被遗弃的城区 土地, 创造地域凝聚力, 包容弱势群体
- 政治治理
- 这是一个多层次概念,涉及不同利益相关者、不同政策和不同工具
 - →需要进行强有力且复杂的协调·



Sustainable urban agriculture in the EU and China: similarities and differences



欧盟和中国的可持续都市农业: 相似性和差异性

- Both China and the EU prioritise the development of a sustainable agricultural system
- **Similar challenges** for agriculture: Food security challenge and environmental challenges
- Differences in the role of the different stakeholders, including authorities and civil society → collective approach to transition in EU
- Concept of Urban and Periurban Agriculture relatively new in both, the EU and China
- In EU metalevel benefits of Sustainable urban agriculture are more important than the pure production, objectives for pursuing UPA in Europe are mostly linked to environmental and social objectives
- In China, promotion of a resource-efficient and ecological sustainable agriculture which has to be productive, social value is secondary, few bottom-up experiences

- 中国和欧盟都把发展**可持续农业体系**放在首 要位置
- 农业面临类似挑战: 粮食安全挑战和环境挑战
- 包括政府机构和民间社会在内的不同利益相 关者存在角色差异 > 欧盟的整体转型方式
- 在欧盟和中国,都市农业和城郊农业都是比较新的概念
- 在欧盟,可持续都市农业的综合效益比生产本身更为重要, 欧洲在都市农业和城郊农业(UPA)上追求的目标主要与环境和社会目标有关
- 在中国,所推广的资源节约型和生态可持续型农业必须是高产出的,社会价值在其次, 自下而上的经验较少

Conclusions: some suggestions 结论:建议



- Holistic and integrated land use planning
- Urban agricultural planning (instruments and processes)
- Short food chains: local food production strategies to strengthen rural-urban linkages
- Local urban agriculture production and value chains
- Land use / land management / economic activities in (peri-)urban areas:
 - Agricultural Parks
 - Public lands for young farmers
 - Tourism and agriculture
- UA as vehicle for capacity building at local level
- Multi-stakeholder involvement
- Food-environment-health nexus
- Synergies between the waste, energy, water and food sector

- 土地利用总体和综合规划
- 都市农业规划(工具和流程)
- 短食物链: 采用本地化食品生产战略, 加强城乡联系
- 地方都市农业生产和价值链
- 土地利用/土地管理/城市(周边)地区的经济活动
 - 农业公园
 - 年轻农户的公共土地
 - 旅游和农业
- 以都市农业为载体,促进地方层面能力建设
- 多个利益相关者参与
- 食品-环境-健康的关系
- 废物、能源、水资源和食品行业之间的协同作用

谢谢!

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