



Co-funded by the Erasmus+ Programme of the European Union



Urban Resilience and Adaptation for India and Mongolia: curricula, capacity, ICT and stakeholder collaboration to support green & blue infrastructure and nature-based solutions 619050-EPP-1-2020-1-DE-EPPKA2-CBHE-JP

## URGENT *Lecture Series*

2<sup>nd</sup>  
Lecture

### Looking at Urban Agriculture Beyond Food Systems

Date : 28 August 2021, Saturday  
Time : 1315 – 1445 Hrs IST

Connect to

Join with Google Meet

<https://meet.google.com/bfk-yzyi-vzc>

#### Speakers



**Dr Andrew Adam-Bradford**

*Visiting Researcher  
University of Surrey, UK*

He is a humanitarian aid worker and Consultant Geographer specializing in food security and urban agriculture in crisis settings. He is an associate member of the RUAF (Resource Centre on Urban Agriculture and Food Security) Foundation and a fellow of the Royal Geographical Society. He has worked with UN-Habitat, UNDP, UNHCR and many NGOs as consultant. He is also Horticulture instructor and urban agriculture specialist with expertise in practical farm projects. He is former Senior Research Fellow with Coventry University, UK.



**Dr Richard Baines**

*Principal Consultant  
Agri-Business & Community Development  
Gloucester, UK*

He is a contract researcher and works with 'in-country' associates to develop sustainable agri-food solutions. His academic interests are agricultural and rural development in emerging economies. He has taught at the Royal Agricultural University, UK and was the Programme Manager of MSc in International Rural Development and Sustainable Agriculture & Food Security. He was also Co-Founder for African Fellowship Trust and Director of Programmes. To his credit he also has many books, articles and PhD research projects.

*Facilitating Institution*

**Nirma University**

Speaker: **Dr. Andrew Adam-Bradford**, Professor, Coventry University, UK

Topic: **Urban and Peri-urban Agriculture**

Dr. Andrew's presentation starts with the definitions of urban agriculture. He defines urban agriculture "as the integration of food, fibre, ornamental and medicinal plant production systems within an urban ecosystem". Along with this, peri-urban and rural agriculture are also defined. The importance is given on urban features which help in agriculture compared to seasonal rain-fed agriculture. He also highlights that how urban agriculture has always been historically part of urban centres. Examples were shown which indicate that urban agriculture has been maintained in past due to events like conflicts, wars or climate change related hazards. Next, he showcases examples of urban agriculture from cities where such practices are taken up even within the congested parts of the cities. Given examples highlight that in countries of Africa and Asia, even very small plots are utilized for this purpose due to its contribution as a livelihood option. The presentation next focuses on the multiple scales on which urban agriculture can be undertaken, such as from as small as plant pots to large-scale plantation on fields. This has noted to have important implications for urban resilience and food security. A broader subject under which urban agriculture should be understood is urban ecology as it allows for a *systems thinking*. The focus of the presenter's research is on three main aspects that contribute to urban resilience- *Environment Protection, Environmental Sanitation and Food Security*. Further, some examples along with the outputs, techniques and benefits from each are listed. Urban agriculture is also stated to contribute in urban-regional resilience as natural hazards usually occur at regional scale. Next, some health benefits of urban agriculture are listed. Following this, a number of slides which provide the examples of different settings of urban agriculture around the world are provided. This includes roof top farming in Gaza, farming by refugees, live stocks that refugees maintain, urban agriculture showing protection from flooding in Ghana, community agriculture program in low-income areas in New York city, intensive farming on small plots in a refugee camp setup after the Tsunami etc. Next, the application of urban agriculture in sanitation was presented, especially in refugee camps. Some examples of Syrian refugee camps in Jordan and Iraq were shown. Examples of some cash for waste program such as in Gaza strip were also shown where organic waste are brought in to compost plants in return for cash. Other examples were shown from Iraq where urban green spaces were maintained for aesthetic benefits and for improving microclimate through shading. Next, the role of urban agriculture in managing risks was presented. Some associated risk includes waste disposal issues, use of untreated wastewater, and use of pesticides. Next focus of the presentation was classification of urban agriculture into different classes. Some historical events in which farming was considered under the terms of siege was showcased. Finally, in conclusion, urban agriculture was noted to have multiple applications such as food security, environmental protection, sanitation and disaster risk reduction. For its full potential, "bold urban visions, strong and enlightened leadership and human and technical resources" are suggested. More questions pertaining to Dr. Andrew's research work can be corresponded through his email- [andrew@greeinginnovationstudio.org](mailto:andrew@greeinginnovationstudio.org)

Speaker: **Dr. Richard Baines**, Director, Agri Business and Community Development, UK  
Topic: **Urban Resilience: Urban Agriculture Beyond Food Systems**

Dr. Richard's presentation starts with the definition of urban and rural communities. Major differences pointed out were in terms of the population densities, dominating activity, infrastructure, migration of people, wages etc. Next, the urbanization trends developing globally was discussed, stressing upon the increasing population in developing countries. This also implies towards the increased rural migration which would affect the supply of resources from rural areas to the cities. The urban runoff is highlighted as a potential resource which is wasted in urban areas due to built-up coverage. The potential of cities for rural development was discussed next, especially in developing countries. For this, institutional capacity in the public sector, employment in the rural areas and poor infrastructure are stated to be the main barriers that should be overcome. The associated problems of sanitation and urban waste are also noted to be concerning. Urban planning challenge for cities and town was noted to be more towards the fringes and not in the central areas. One of the key questions posed because of such challenges is *How can we better link urban and rural communities for mutual benefit?* Next, the presenter highlights how food and globalization are interconnected. The point of concern raised was the way the supply chain is designed, such that the ones at the end of the chain are benefiting and the small-scale farmers are in disadvantageous position. A global assessment of irrigated cropland highlight that about 60% of all irrigated cropland is within 20km of urban extent and thus logistically it is more viable to get most of the city's food needs from near-by farms. The wastage of food is also a concerning point. A difference in pattern is showed between the developed and developing countries. In the developed world, wastage is seen in the end of the supply chain, while in developing countries lack of ample safe storage facilities is leading to wastage. Given the facts on the irrigated cropland and wastage of food, a conceptual model was proposed. This food-scape model focuses on developing rural-scape, which can act as the local food supply as it has done traditionally, but with many barriers to overcome such as those associated with logistics. The other parallel option proposed was the city-scape, which can overcome logistics problem. These two scapes- *rural* and *urban* are also proposed to be connected by supplying organic waste to rural areas where they can be used as a nutrient input. In urban areas, the potential for production is stated to be in home gardens, community allotments, public spaces, on and in public buildings etc. Some important points with respect to the agri-processing and supply include focusing on harvesting and transport protocols, safe bulk storage, hygienic controls and food safety, packaging and safe storage, distributions protocols, waste and water management etc. Some options which can be used in urban areas include high value vertical horticulture and anaerobic digestion units. The presentation ends with the look at the case of Ulaanbaatar city, Mongolia which is facing issues related to lack of access to improved sanitation services, poor connectivity to city's electrical grid, central sewage and heating systems. In view of these problems few challenges are highlighted which can be taken up for research, such as mapping food systems in the city and how to build foodscapes model for the city.

REC

Andrew Adam-Bradford

1:22 PM | URGENT Lecture Series- 2nd

Aditi Mali, Sweati Kothary, Akhlag Wani, UTSAVI SHAH, Jayesh Solanki, Dr. Aparna, DHRUV YASHVI, Anoushka Das, 22 others, You

REC

Richard Baines

SOME PEOPLE WANT IT TO HAPPEN SOME WISH IT WOULD HAPPEN OTHERS MAKE IT HAPPEN.

3:05 PM | URGENT Lecture Series- 2nd

Sweati Kothary, Aditi Mali, Dipu Sherathiya, Akhlag Wani, DEEP VARAYANPAN..., Andrew Adam-Bradford, M.M. ANEES, UTSAVI SHAH, 25 others, You



Link to Lecture

[https://drive.google.com/file/d/1W0fGsnI3c3m83fRQDc8dOtuqB\\_sfu66e/view](https://drive.google.com/file/d/1W0fGsnI3c3m83fRQDc8dOtuqB_sfu66e/view)