



SERENA MARIANI

**URBAN AGRICULTURE
AND PLANT
VARIETY RIGHTS**
THE LEGAL CHALLENGES
OF “URBANISING” PLANT BREEDING
IN THE EUROPEAN UNION





©

ISBN
979-12-218-0315-0

FIRST EDITION
ROMA 14 NOVEMBER 2022

To Matteo and Giorgio

CONTENTS

- 9 *Preface*
- 11 *List of abbreviations*
- 13 Chapter I
Innovation in urban agriculture. The role of plant breeding
1. Introduction, 13 – 2. What is urban agriculture: history and context, 16 – 3. Urban agriculture for sustainable development, 20 – 4. Definitions and typologies of urban agriculture, 26 – 5. Challenges and limitations of urban agriculture, 32 – 6. What is plant breeding: in a nutshell, 34 – 7. Techniques in plant breeding, 38 – 8. “Urbanising” plant breeding, 41.
- 51 Chapter II
Protecting new plant varieties. An overview of the UPOV system
1. Introduction to intellectual property, 51 – 2. Brief history of plant variety protection, 54 – 3. Plant variety protection: the hybrid regime, 58 – 4. Intellectual property rights over plants: patents vs. plant variety rights, 61 – 5. The International Convention for the Protection of New Varieties of Plants, 65 – 6. On the definitions of “breeder” and “plant variety”, 68 – 7. The five conditions of protection, 72 – 7.1. *The Dus requirements*, 72 – 7.2. *The novelty requirement*, 76 – 7.3. *The variety denomination*, 77 – 8. Scope of protection, exhaustion and restrictions, 79 – 9. Duration of protection, 84 – 10. The breeder’s exemption: from independence to limited dependence, 85 – 11. Seed saving and the farmer’s privilege, 92.

8 *Contents*

97 Chapter III

Plant variety rights vis-à-vis urban agriculture. Connecting the dots in the European Union

1. Introduction, 97 – 2. The Eu plant variety protection system: an overview, 98 – 3. Eu plant variety rights and interests of “urban” plant breeders, 103 – 3.1. *Entitlement to plant variety rights and participatory plant breeding*, 104 – 3.2. *Scope of the plant variety right and limitations of its effects*, 111 – 4. Eu plant variety rights and interests of urban gardeners and farmers, 119 – 4.1. *Dus requirements and the demand for urbanised plant varieties*, 120 – 4.2. *The “rural” farmer’s privilege*, 129.

139 *Conclusions*

147 *Bibliography*

PREFACE

Urbanisation represents a challenge for the agriculture of the third millennium, as well as an opportunity, as proven by the rising phenomenon of urban agriculture, which creates jobs and businesses and generates economic return, it is able to achieve social and environmental goals, it offers the chance to urban dwellers to become more self-sufficient in terms of food production but, most importantly, it can lead the transition towards more sustainable and resilient food systems.

The rise of urban agriculture demonstrated that is possible to break the rural-urban divide, by sprawling agricultural activities beyond their traditional locations.

However, doing agriculture in the city faces numerous challenges of different nature. One of them is represented by the shortage of plant varieties having urban-oriented features, adapted to the local environment.

In this context, it is necessary to “urbanise” plant breeding, shifting its traditional rural objectives towards the development of new plant varieties capable to meet the demands of urban producers.

However, plant breeding needs a large amount of investments to be carried out efficiently, not to mention that innovation in this sector is enabled by a favourable regulatory environment, provided it is capable to protect the interests of breeders and users.

The *sui generis* Upov plant variety protection has the purpose to foster such innovations and stimulate the breeding of new varieties by rec-

ognising intellectual property protection to the breeder of a new plant variety.

In the European Union, all the relevant substantial and procedural rules for plant variety protection are established by Regulation (Ec) No 2100/94, which regulates the conditions for the grant of a unitary Ip right on new plant varieties throughout the European Union upon a single application.

This Regulation has been adopted more than twenty–five years ago, when agricultural activities were mostly limited to rural environments and particular attention was not dedicated to urban agriculture.

Despite the growing interests towards the benefits of urban agriculture and the increasing support shown by the Eu policymakers, the legal challenges of plant variety protection in facing the need to “urbanise” plant breeding have not been investigated yet.

One of the reasons may lie in the fact that plant variety protection is considered to be of interest to only a few specialists, hence attracting exclusively a limited audience.

In light of the above, the aim of this book is to fill a gap by exploring whether Eu plant variety rights can support or, in the worst–case scenario, restrain plant breeding suitable for urban agriculture.

The analysis focuses on some of the most relevant provisions of Regulation (Ec) No 2100/94, having an impact on the process of “urbanising” plant breeding.

Concerning the book structure, initially the text presents the concepts of urban agriculture and plant breeding, then the analysis moves to the most significant provisions of the Upov Convention, and finally it focuses on the European legal framework for plant variety rights from the perspective of urban agriculture.

Therefore, this book should by no means be regarded as exhaustive. This study should be instead seen as a preliminary source intended to provide an overview of the legal challenges in the relationship between urban agriculture and plant variety rights.

That being the case, I hope it will be a springboard to further research.

Lastly, it is important to note that the text takes into consideration the status of the legislation up until 1 October 2022.

LIST OF ABBREVIATIONS

- Assinsel: International association of plant breeders
Cbts(s): conventional breeding technique(s)
Cjeu: Court of Justice of the European Union
Cpvo: Community Plant Variety Office
Cpvr(s): Community plant variety right(s)
Dus: distinctness, uniformity, stability
Ec: European Community
Edv(s): essentially derived variety(ies)
Epc: European Patent Convention
Epo: European Patent Office
Etgm(s): established technique(s) of genetic modification
Eu: European Union
F2f: Farm to Fork
Fao: Food and Agriculture Organization of the United Nations
Fis: International Seed Trade Federation
Fss: farm-saved seed
Gmo(s): genetically modified organism(s)
Ip: intellectual property

- Ipr(s): intellectual property right(s)
Isf: International Seed Federation
Itpgrfa: International Treaty on Plant Genetic Resources for Food and Agriculture
Nbt(s): new breeding technique(s)
Oecd: Organization for Economic Cooperation and Development
Pbr(s): plant breeder's right(s)
Pluto: PLant varieties in the Upov system: The Omnibus
Ppb: participatory plant breeding
Pvp: plant variety protection
Pvr(s): plant variety right(s)
Ruaf: Research Centre for Urban Agriculture and Food Security
Sdg(s): Sustainable Development Goal(s)
Tgp: Test Guidelines Procedures
Trips Agreement: Agreement on Trade-Related Aspects of Intellectual Property Rights
Ua: urban agriculture
Uaeu: Urban Agenda for the European Union
Un: United Nations
Undp: United Nations Development Programme
Upov: International Union for the Protection of New Variety Plants
Vcu: value for cultivation and use
Who: World Health Organization
Wipo: World Intellectual Property Organization
Wto: World Trade Organization

CHAPTER I

INNOVATION IN URBAN AGRICULTURE THE ROLE OF PLANT BREEDING

I. Introduction

The products providing primary nutrients and energy source for humans come from agriculture, which is essential for feeding the world-wide population.

According to the data collected by the Food and Agriculture Organization of the United Nations (Fao), by 2050 there are going to be almost 10 billion mouths to feed and there will be a rise in agricultural demand by 50 percent, compared to 2013⁽¹⁾. In this context, the agriculture of the third millennium is required to boost productivity, and more⁽²⁾.

(1) FAO, *The future of food and agriculture. trends and challenges*, Fao, Rome 2017, p. x.

(2) Agriculture needs to safeguard biodiversity, face climate change and scarcity of natural resources (soil, water, energy, biological resources) to be used in a sustainable manner. See M. GIAMPIETRO, D. PIMENTEL, *The tightening conflict: population, energy use, and the ecology of agriculture*, Npg Forum Series, 1993, pp. 1–8. Agriculture should also produce food and non-food products meeting the needs and preferences of consumers, as related to taste, nutritional content and texture. Agriculture is also called to play a role in decreasing food waste by placing on the market agrifood products having a longer shelf-life. Moreover, the link between agriculture and human health requires to improve the nutritional outcomes of food-stuffs. In this sense, agriculture and human health are linked to a large extent, since agriculture can lead to a good or poor health status (e.g. malnutrition, chronic diseases). On this last topic, see C. HAWKES, M. RUEL, *The links between agriculture and health: an intersectoral opportunity to improve the health and livelihoods of the poor*, in *Bulletin of the world health organization*, 84(12), 2006, pp. 984–990; M. LIPTON, E. DE KADT, *Agriculture–health linkages*, World Health Organization, Geneva 1988.

However, today agriculture represents a sustainability hotspot, which is required to face crucial and difficult challenges to lead the transition towards more efficient and resilient food systems.

One of these challenges is related to the rising urbanisation.

Currently, 55% of the global population resides in urban areas and more than 880 million people live in slums, and by 2050 the number of urban dwellers is expected to increase by an additional 2.5 billion people⁽³⁾.

Food systems are considerably impacted by the extension of the urbanised world: urbanites consume up to 70% of the global food supply and that the city lifestyle has been related to an higher consumption of processed food with low nutrient value⁽⁴⁾.

The fast-growing urbanised world also necessarily elongates food supply chains by widening the physical, social and mental distance between urban and rural areas, consumers and farmers⁽⁵⁾, aggravating the pressure to bring food to congested urban areas and preventing the most vulnerable from accessing nutritious food⁽⁶⁾.

Nowadays, access to food in large cities is characterised by high spatial and socio-economic inequality⁽⁷⁾.

This extension of food supply chains have also affected food safety because the increased frequency, speed and volume of movements facilitate the spread of pathogens⁽⁸⁾.

In view of the above, agriculture must be able to revolutionize itself. The current agricultural system based on resource-intensive production and the ever longer food supply chains are not fit for sustainable

(3) FAO, *Fao framework for the Urban Food Agenda*, Fao, Rome 2019, p. 6.

(4) C.A. MONTEIRO, J.C. MOUBARAC, G. CANNON, *et al.*, *Ultra-processed products are becoming dominant in the global food system*, in *Obesity review*, 14, 2013, pp. 21–28.

(5) The grown gap between food consumption and production is proved by the fact that most urban consumers do not have a direct contact with the places where their food is produced and the people that produced it, since nearly all food is purchased in stores. This physical distance has increased the social and mental distance between producers and consumers. F.W.A. BROM, *Food, consumer concerns, and trust: food ethics for a globalizing market*, in *Journal of agricultural and environmental ethics*, 12, 2000, pp. 127–139.

(6) FAO, IFAD, UNICEF, WFP AND WHO, *the state of food security and nutrition in the world 2021. Transforming food systems for food security, improved nutrition and affordable healthy diets for all*, Fao, Rome 2021, p. 99.

(7) FAO, *Fao framework for the Urban Food Agenda*, *cit.*, p. 8.

(8) J.R. ROHR, C.B. BARRETT, D.J. CIVITELLO, *et al.*, *Emerging human infectious diseases and the links to global food production*, in *Nature sustainability*, 2, 2019, pp. 445–456.

development: they are causing massive soil consumption, deforestation, chemical contamination of the environment, water shortages, high levels of CO² emissions and threats to biodiversity, while almost 800 million people are suffering from hunger⁽⁹⁾.

Therefore, in the next few years farmers will be required to contribute to this revolution by promoting new sustainable agricultural systems.

The different characteristics of farming, digitalisation in agriculture and the cultural, social, economic and technological changes to come, as well as climate change, environmental degradation and the need to shift to more environmentally sustainable forms of farming, will affect the farmers of the future.

It is expected that in 2040 there will be a more different agricultural scenario, shaped by the emerging challenges, trends and opportunities, which will develop twelve future farmer profiles⁽¹⁰⁾.

One of them is the “urban farmer”, who carries on agricultural activities on urban soil, combining his/her life in the city with the implementation of local food production of, mostly, high value crops.

This person manages to transform urbanisation from a challenge into an opportunity for agriculture.

In terms of sustainability, urban farmers are capable to increase city resilience to crises and reduce urban sprawls, building sustainable urban ecosystems and contributing to urban biodiversity⁽¹¹⁾.

Urban agriculture (Ua) nowadays represents an emerging trend, including more than 250 projects⁽¹²⁾ and actively engaging numerous cities worldwide.

Regarding the scale of the phenomenon, in 1996 it has been estimated that, globally, 800 million people were actively involved in urban and peri-urban agriculture⁽¹³⁾.

(9) FAO, *The future of food and agriculture*, cit., p. xi.

(10) A.K. BOCK, M. KRZYSZTOFOWICZ, J. RUDKIN, V. WINTHAGEN, *Farmers of the future*, Eur 30464 En, Publications Office of the European Union, Luxembourg 2020.

(11) Ivi, p. 60.

(12) The data refer to the online atlas of urban farming created by the Urban Agriculture Europe project between 2010 and 2016, available at <http://www.urban-agriculture-europe.org/online-atlas.html> (last access 5 September 2022).

(13) UNDP, *Urban agriculture. Food, jobs, and sustainable cities*, United Nations Development Programme, Publication Series for Habitat II, vol. 1, Undp, New York 1996, p. 26.

However, a recent study highlighted that it is difficult to assess the current scale of urban agriculture and, interestingly, suggested that it would require approximately one third of the total urban area to meet the global vegetable consumption of urban residents⁽¹⁴⁾.

In this context, it must be noted that the Milan Urban Food Policy Pact, an international agreement of Mayors signed on 15 October 2015 in Milan, representing one of the most important legacies of Milan Expo 2015 and providing a recommendation for the definition of innovative food policies (including the promotion of Ua), gathers more than 220 cities, representing a total of 400 million inhabitants in six world regions⁽¹⁵⁾.

Following this trend, it has been considered that by 2040 Ua will become a well-established phenomenon, provided that a favourable policy and regulatory environment is created.

2. What is urban agriculture: history and context

Ua is a large industry, consisting of small-scale operators and large agribusinesses located in a “urban” spatial dimension, which is crucial for millions of people throughout the world, capable of providing a source of income and addressing poverty reduction⁽¹⁶⁾, contributing to food security⁽¹⁷⁾, to dietary diversity⁽¹⁸⁾ and, generally, to the socio-economic development of towns, cities and metropolitan areas⁽¹⁹⁾.

(14) F. MARTELLOZZO, J.S. LANDRY, D. PLOUFFE, *et al.*, *Urban agriculture: a global analysis of the space constraint to meet urban vegetable demand*, in *Environmental research letters*, 9, 2014 pp. 1–8.

(15) A recent policy brief on the Milan Urban Food Policy Pact may be found at the following website: https://www.milanurbanfoodpolicycompact.org/wp-content/uploads/2022/04/Policy-Brief_Mufpp_2022.pdf (last access 10 October 2022).

(16) Specifically, the data show that urban agriculture appears to be playing a role in poverty alleviation in African countries (such as Ghana, Madagascar and Nigeria), not so much in other continents. A. ZEZZA, L. TASCIOTTI, *Urban agriculture, poverty, and food security: empirical evidence from a sample of developing countries*, in *Food policy*, 35, 2010, pp. 265–273.

(17) The linkage between UA and food security, in particular on the children nutritional status, has been explored by D. MAXWELL, C. LEVIN AND J. CSETE, *Does urban agriculture help prevent malnutrition? Evidence from kampala*, in *Food policy*, 23, 5, 1998, pp. 411–424.

(18) It has been shown that being active in Ua increases the dietary diversity of urban households. See A. ZEZZA, L. TASCIOTTI, *Does urban agriculture enhance dietary diversity? Empirical evidence from a sample of developing countries*, FaO, Rome 2008.

(19) UNDP, *op. cit.*, pp. 3–4.

In this sense, it contributes to the environmental, social and economic objectives of sustainable urban development⁽²⁰⁾.

Ua occurs within and in the proximity of the boundaries of towns, cities and metropolises, in places that range from household, community and school gardens, to rooftops, vertical and indoor farms⁽²¹⁾.

It embraces both traditional agricultural activities, including horticulture, livestock, milk production, aquaculture, fishery and even forestry⁽²²⁾, and innovative production methods such as aquaponics, hydroponics or Led-farming initiatives⁽²³⁾. The outcomes can be food and non-food products, as well as services, including social and ecological ones.

Even though the term “urban agriculture” may seem an oxymoron⁽²⁴⁾, it actually breaks the rural-urban divide by making the contrast less sharp: cities are not anymore only hubs of commerce, trade, finance and education, but also the place where agricultural activities, traditionally located elsewhere, are carried on⁽²⁵⁾.

The proximity between producers and consumers is enhanced through the creation of spaces where urban and rural activities can coexist.

Even if the term is relatively new, having become more common just during the 1990s⁽²⁶⁾, the concept of Ua is not.

The use of natural resources in urban and peri-urban environments for food production, mainly for self-sufficiency purposes, dates back millennia⁽²⁷⁾.

(20) R. VAN VEENHUIZEN, *Formulating effective policies on urban agriculture*, in *Urban agriculture magazine*, Ruaf, 16, 2006, p. 1.

(21) J. McELDOWNEY, *Urban agriculture in Europe. In-depth analysis*, European Parliamentary Research Service, PE 614.641, 2017.

(22) FAO, *Urban and peri-urban agriculture*, Fao Committee on Agriculture, Fifteenth Session, 25–29 January 1999, Fao, Rome, available at <https://www.fao.org/unfao/bodies/coag/Coag15/X0076e.htm>. According to Fao, urban forestry has critical environmental functions, besides food and non-food production (e.g., wood). The potential role of perennial woody food-producing species in cities in the context of urban agriculture, called “urban food forestry”, is explored in K.H. CLARK, K.A. NICHOLAS, *Introducing urban food forestry: a multifunctional approach to increase food security and provide ecosystem services*, in *Landscape ecology*, 28, 2013, pp. 1649–1669.

(23) J. McELDOWNEY, *op. cit.*, p. 6.

(24) UNDP, *op. cit.*, pp. 3–4.

(25) F. LOHRBERG, L. LIČKA, L. SCAZZOSI, A. TIMPE (eds.), *Urban Agriculture Europe*, Cost Action, Jovis, Berlin 2016, p. 16.

(26) The term was sporadically used prior to the 1990s. FAO, RIKOLTO, RUAF, *Urban and peri-urban agriculture sourcebook – From production to food systems*, Fao and Rikolto, Rome 2022, p. 9.

(27) J. GREEN, *Urban agriculture isn't new*, 2012, available at <https://dirt.asla.org/2012/05/09/urban-agriculture-isnt-new/> (last access 5 September 2022).

The connection between agriculture and urbanisation started in Neolithic times and it has evolved since then. More than 10,000 years ago, the beginning of domestication of wild plants and the shift to agriculture allowed the humankind to have access to more food with less effort in a permanent place.

The predictability of food facilitated the settlement of the first farming communities, which led to the development of more complex societies and the creation of the first cities.

In the relationship between agriculture and urbanisation, plant breeding, specifically plant domestication, has been the triggering factor: plant domestication led to agriculture, and with agriculture came the earliest urban development.

Originally, the fertility of the land was the main element to determine the place where the cities were to appear: it is not surprising that the earliest example of urbanisation was found in the Fertile Crescent, where some of the first settled farming communities established and food was available within walking distance from the cities.

Later on, in Ancient Rome, the dichotomy between “urban” and “rural” activities started taking roots, but up until pre-industrial times it was quite common for urban residents to have domestic animals, small farms or household gardens within the city.

Examples of urban agriculture can be found also in pre-Columbian America: in Latin America, Aztec, Mayan and Incan cities were self-sufficient in terms of fruit and vegetable production⁽²⁸⁾.

Urban agriculture was also the main disposal method for urban wastes before the development of urban sanitation systems, particularly for enriching soils both in urban and rural areas⁽²⁹⁾.

During the mid-eighteenth century and nineteenth century, the contrast between urbanites and rural farmers settled in.

At the same time, the Industrial Revolution in Europe led to a rise in urban population and an increase in food demand in cities: in such a context, household and community gardens offered an opportunity

(28) E.G., Machu Picchu seems to have been self-reliant in food production. See UNDP, *op. cit.*, pp. 28–29.

(29) *Ibidem*. A famous example of biological recycling of city waste products is the Parisian *marais* farming system, where urban vegetable and fruit production was sustained by the use of stable manure produced by the city’s horses used for transportation.

for urban residents to become more self-sufficient in terms of food production⁽³⁰⁾.

Industrialization gave rise also to the Garden City Movement, encouraged by the British urban planner Ebenezer Howard's book "Garden Cities of Tomorrow" published in 1902, which offered a different model of urban areas reconciled with nature in order to provide healthy living conditions for the benefit of the residents, especially the working class.

During that period, many Asian countries were as well supportive of urban agriculture: for example, Chinese cities excelled in achieving partial self-reliance in non-grain foods⁽³¹⁾.

In the second half of the twentieth century, the importance of urban agriculture accelerated, especially in low-income countries, where the percentage of residents engaged reached up to 80% in some cities⁽³²⁾.

More recently, there has been another surge of people interested in urban agriculture, in light of the potential in addressing the vulnerabilities of food systems generated or exacerbated by the Covid-19 pandemic⁽³³⁾.

The Fao global survey of 2020, on how city and local governments faced the challenges of food system disruptions associated with the pandemic, revealed that promoting local production and a short supply chain through urban agriculture is one of the key lessons for building back better, which also allows to preserve agricultural land within and around cities⁽³⁴⁾.

(30) F. LOHRBERG, L. LIČKA, L. SCAZZOSI, A. TIMPE (eds.), *op. cit.*, pp. 18–19.

(31) UNDP, *op. cit.*, pp. 34.

(32) Ivi, pp. 25–27. By way of illustration, the data show that in Kampala (Uganda) 70% of the poultry needs in terms of meat and eggs are produced inside the city; in China 90% of the vegetable demand of the 18 largest cities was met through urban production; in the Usa 30% of agricultural product is produced within metropolitan areas; in Singapore 80% of the poultry is produced within the city.

(33) S. SIMON, *The 'Covid-trigger': new light on urban agriculture and systemic approach to urbanism to co-create a sustainable Lisbon*, in *Systemic practice and action research*, 2022.

(34) FAO, *Cities and local governments at the forefront in building inclusive and resilient food systems: Key results from the Fao survey "Urban food systems and Covid-19"*, Fao, Rome 2020, p. 15. The respondents also highlighted that, in order to facilitate access in emergency situations, it would be necessary to create local storage facilities for food reserves.

3. Urban agriculture for sustainable development

The literature on the topic has underlined the multiple benefits and opportunities – environmental, economic and social – brought by urban agriculture⁽³⁵⁾. These benefits are nowadays coming to light in the 2030 Agenda⁽³⁶⁾ to achieve its Sustainable Development Goals (Sdgs)⁽³⁷⁾.

(35) S. MICCOLI, F. FINUCCI, R. MURRO, *Towards integrated urban agriculture systems: economic and valuation aspects*, *XLIII Incontro di studio del Ce.S.E.T.*, 2016, pp. 53–54.

(36) At the international level, the pressure to develop a global strategy in terms of sustainability has been at the heart of the Un Sustainable Development Summit held on 25 September 2015, when more than 150 world leaders adopted the 2030 Agenda for Sustainable Development. The document represents the world's blueprint in this matter and incorporates a follow-up from the Rio+20 Conference on Sustainable Development. It is characterised by its universality, striving for its application at all levels of government and civil society, and by a holistic and cross-sector approach to ensure that all the relevant challenges are addressed together. Specifically, it aims at promoting globally shared prosperity and well-being for the following 15 years, making specific emphasis on the objectives of poverty reduction, fighting inequalities and tackling climate change. For an analysis of the Un 2030 Agenda, see *inter alia* N. LONGO, *L'Agenda 2030 ed il principio della sostenibilità nel diritto internazionale*, in *Il diritto penale della globalizzazione*, 3–4, 2017, pp. 297–327; L. CHIUSI, *The Un 2030 Agenda on Sustainable Development: talking the talk, walking the walk?*, in *La Comunità internazionale*, 61, 2016. On the critical role of agriculture in the 2030 Agenda, see S. MANSERVISI, *Il ruolo emergente del diritto agroalimentare tra economia circolare e Sdgs di Agenda 2030*, in S. CARMIGNANI, e N. LUCIFERO (eds.), *Le regole del mercato agroalimentare tra sicurezza e concorrenza. Diritti nazionali, regole europee e convenzioni internazionali su agricoltura, alimentazione, ambiente*, Editoriale Scientifica, Napoli 2020; S. CARMIGNANI, *Sdgs e agricoltura. Una breve riflessione*, in S. CARMIGNANI, e N. LUCIFERO, *op. cit.*; FAO, *Food and agriculture: key to achieving the 2030 Agenda for Sustainable Development*, FaO, Rome 2016.

(37) In this sense, FAO, *Fao framework for the Urban Food Agenda*, Rome 2019. For an interesting analysis, see also R. SEMENOVA, K. WILHELM, *Sustainable development goals addressed by urban farming*, Interreg North–West Europe, 2021. The Agenda addresses the economic, social, and environmental dimensions of sustainable development by setting at its core 17 specific Sdgs, not legally binding, whose implementation and success rely on each participating country policies and programs. Specifically, the 2030 Agenda aims to: 1. end poverty in all its forms everywhere; 2. end hunger, achieve food security and improved nutrition and promote sustainable agriculture; 3. ensure healthy lives and promote well-being for all at all ages; 4. ensure inclusive and equitable quality education and promote lifelong learning opportunities for all; 5. achieve gender equality and empower all women and girls; 6. ensure availability and sustainable management of water and sanitation for all; 7. ensure access to affordable, reliable, sustainable and modern energy for all; 8. promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all; 9. build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation; 10. reduce inequality within and among countries; 11. make cities and human settlements inclusive, safe, resilient and sustainable; 12. ensure sustainable consumption and production patterns; 13. take urgent action to combat climate change and its impacts; 14. conserve and sustainably use the oceans, seas and marine resources for sustainable development; 15. protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and