

The Commons

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This chapter serves as an essential guide for educators, aimed at empowering learners to appreciate and engage with the concept of the commons.

The commons, encompassing everything from natural resources to cultural and digital assets, serve as a unifying theme that interlinks different areas of study. They represent critically important, yet often overlooked, shared resources, which communities manage and benefit from collectively. In this chapter we emphasize the central role that the commons might have in promoting landscape sustainability and the importance of integrating resilience, economic empathy, and collective stewardship into landscape economy education.

An introduction to the commons

The history of commons management reflects a rich tapestry of social, economic, and environmental interactions. Starting from ancient civilisations, commons were integral to communal living, providing shared resources like water, grazing lands, and forests. Medieval Europe saw the formalisation of commons rights, but the Industrial Revolution brought a paradigm shift. Enclosure Acts in England, for instance, privatised common lands, fundamentally altering rural life and contributing to urban migration. In the 20th century, the *Tragedy of the Commons Theory* emerged (Hardin, 1968), prompting debates on their sustainability and feasible management. Recently, global challenges like climate change and

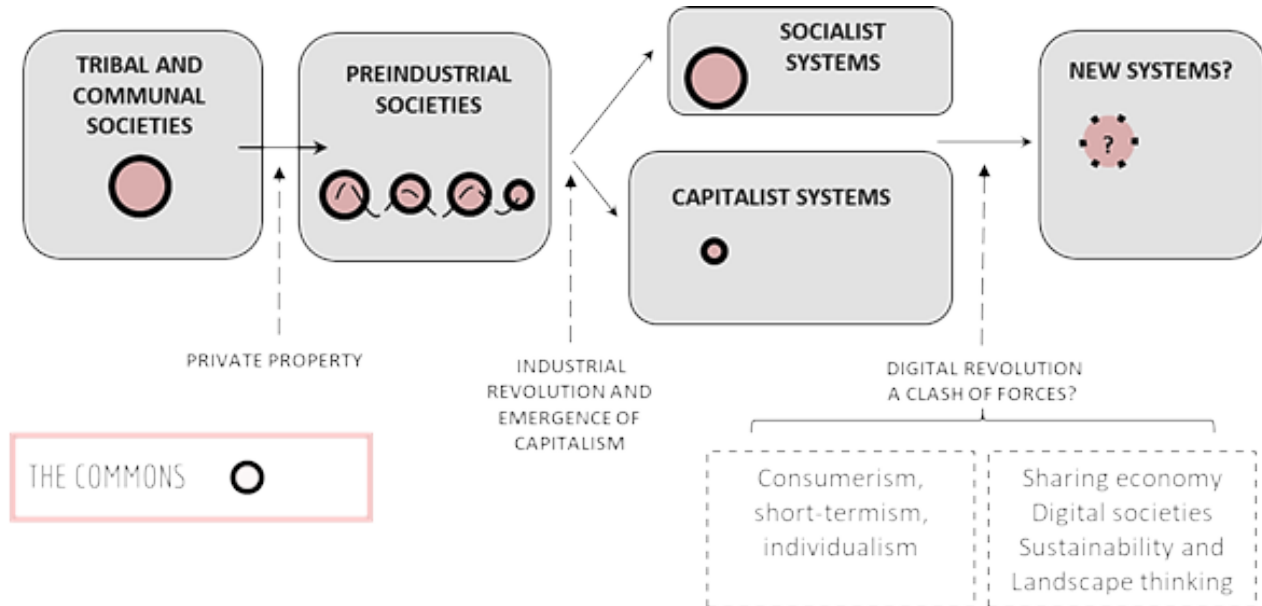
digitalisation have opened new possibilities for the commons, emphasising their importance on both local and global scales, and leading to innovative models of shared resource governance. This historical evolution highlights the adaptability and continuing relevance of the commons, as claimed by J.M. Neeson (1993) and Elinor Ostrom (1990).

Over time, the understanding of the commons evolved from traditional communal usage to a modern perspective of integrated landscape management. This change highlights the interplay of ecological, social, and economic factors and emphasises collective stewardship for sustainable and resilient landscapes.

Key historical events that significantly influenced commons management include:

- 1. Medieval Europe's Commons Systems:** Established shared use of land and resources, crucial for agrarian societies.
- 2. Enclosure Acts in England (18th–19th Century):** Privatisation of common lands, leading to significant social and economic changes, including urban migration.
- 3. Industrial Revolution:** Altered traditional commons usage, as people moved to cities for factory work, reducing dependence on communal land.
- 4. Rise of Environmentalism (20th Century):** Sparked a renewed interest in sustainable resource management, influencing modern commons governance.

A conceptual and historical evolution of the Commons and current questions (Source: authors)



Types of commons and new commons

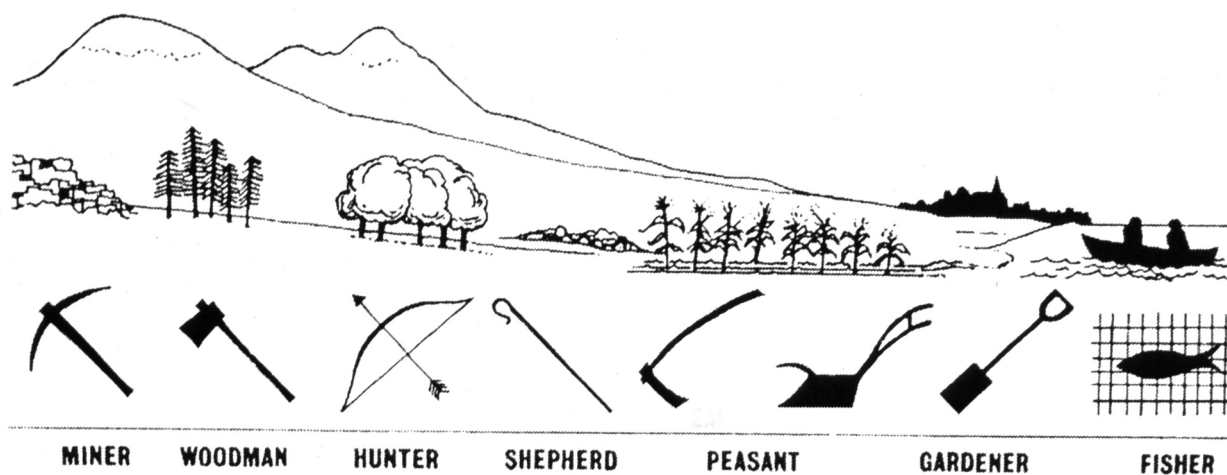
The historical development of Western Europe has witnessed the evolution of small settlements with common central areas. Over time, these lands have undergone changes in ownership, use, and management, leading to shifts in the landscape and community dynamics.

The landscape of common land is characterised by ongoing struggles between preservation, community welfare, and economic interests. This includes challenges like regulations impacting forest harvesting, loss of agricultural land to urban expansion, illegal occupation, sale of agricultural land, restricted public accessibility, and privatisation of public land. However, there are also gains, such as the reclamation of illegally taken plots, enhanced access for leisure, allocation of land for urban agriculture, and promoting community ownership for common production.

The advent of digital technology and increased urbanisation has expanded the definition of commons to include digital information and new shared urban spaces. This shift recognizes the importance of knowledge-sharing and collective action in managing the complexities of modern landscapes. Urban commons serve as vital spaces for community engagement and environmental stewardship (Bollier, 2012).

This evolution implies a renewed commitment to collaborative governance and community well-being. It aligns with broader goals like sustainable development and circular economies and is evident in various sectors, from rural resource management to urban communal spaces and the digital world.

The valley section from hill to sea by Patrick Geddes (1923/



Rural Commons: They include shared resources and land use practices prevalent in rural settings that are crucial for the sustenance and well-being of local communities. Rural commons are often managed collectively by the community or local governing bodies.

The Valley Section by Patrick Geddes (see figure above) emphasizes the logics and harmonious distribution of land uses in rural settings.

Urban Commons: The emergence of urban commons represents a significant shift in the way cities are developed and managed. It advocates for a model of urban development that is sustainable, inclusive, and equitable, grounded in the principles of active community engagement and shared responsibility.

Urban Commons are not just about physical spaces but encompass diverse themes crucial for sustainable urban development. They support non-capitalist economies, emphasize ecological care and resilience, and utilize shared infrastructures to build resilient communities. Governance in urban commons transcends mere management, representing a political process embracing self-governance to transform society. They are seen as a way to promote collective care, regeneration, and resilience.

Creative Commons and Intellectual Property: The digital revolution, coupled with the rise of the sharing economy, is facilitating the exchange and sharing of goods, resources, and knowledge. This shift aligns well with emerging priorities like sustainability but is in contradiction with other contemporary trends like

increased consumerism, short-term focus, and a rise in individualistic values.

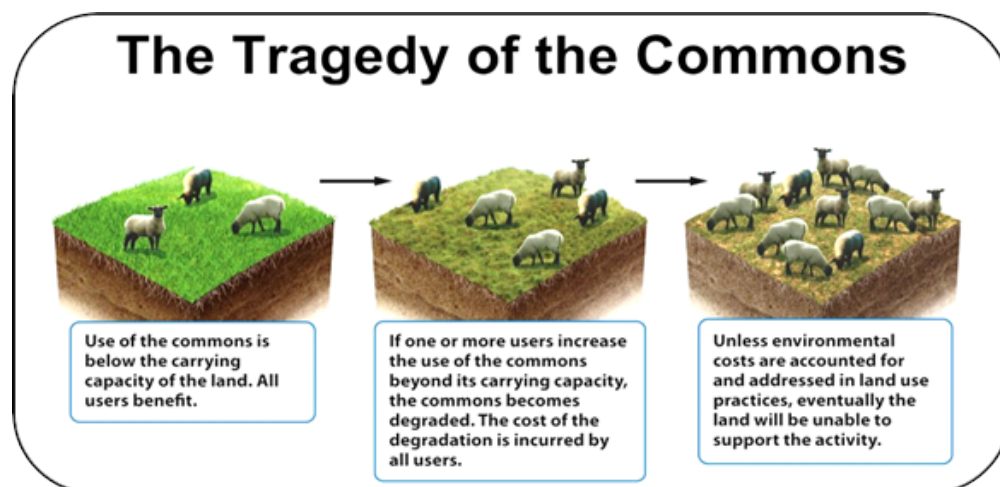
Just to give one example, the concept of *creative commons* has revolutionised access to educational resources, balancing free access with the protection of authors' intellectual property rights. This approach contrasts with traditional copyright, offering a flexible framework for using works without direct permission from the creators.

Rights and duties in commons management

Managing commons involves setting and agreeing upon a set of rules by all those involved. This underscores the collective responsibility and shared benefits in using commons. Governance of the commons involves not just rules but also the dynamic relationships within communities and, in many cases, between humans and nature. This concept is vital for sustaining and revitalising community life, especially in times of uncertainty.

Critical theory on the commons: challenges and new possibilities

The Tragedy of the Commons: In 1968, Garrett Hardin published a seminal paper that shaped the discourse on commons management for decades. Hardin argued that shared resources, when left unregulated, are subject to overuse and eventual destruction due to individual self-interest. This theory, known as the *Tragedy of the Commons*, posits that individuals, prioritising their personal gain, would inevitably deplete common resources, leading to a collective loss. This perspective led to the widespread belief that privatisation and individual ownership could provide a solution to the effective management of these resources.



The tragedy of the commons, source: Houtman, A. H (2012) *Environmental Science for a changing world*. W. H.. Freeman and Company

Challenging the tragedy: Elinor Ostrom's work challenges Hardin's view. The work of Elinor Ostrom, a Nobel Prize laureate, introduced a transformative perspective on the management of the commons. Ostrom's extensive research demonstrated that communities could, contrary to Hardin's predictions, successfully manage their resources through cooperative practices and mutual agreements. Her studies revealed that with appropriate communal strategies, shared resource management could be sustainable, debunking the notion that privatisation was the only viable solution.

Ostrom emphasized the significance of intergenerational and collective thinking, aligning her findings with modern sustainability and resilience paradigms. Her work showcased that communal resource management, when done effectively, can be an integral part of addressing contemporary environmental and societal challenges.

Requirements for effective commons management:

Ostrom's principles for successful commons management are highlighted:

- Defining a group of people with rights to the common.
- Establishing rules to prevent overuse and abuse.
- Ensuring the capacity to modify rules as needed.
- Gaining recognition and legal status for the rules.
- Developing a system to monitor usage and enforce rules.

- Implementing sanctions and procedures for solving disputes.
- Operating at multiple levels, from local to broader scales.

Landscape as a shared resource and as a common

Landscape, as a shared resource, pertains to the collective benefit derived from both natural and built environments. This view promotes the integration of ecological health, cultural values, and community well-being into landscape management practices. It also highlights the need for inclusive governance systems that allow for the participation of diverse stakeholders in decision-making processes.

The drivers of the commons sector are multifaceted, involving ecological sustainability, social justice, and economic viability. The sustainability conflicts often stem from competing interests such as conservation versus development. Major tradeoffs can include the choice between preserving traditional ways of life and embracing modernisation, or the conflict between individual benefits and collective well-being. Systems thinking in this context requires acknowledging the complexity of landscapes as networks of interrelated ecological, social, and economic systems. It involves understanding how changes in one aspect of the system affect others and considering long-term impacts. Policymaking based on systems thinking would involve adaptive management practices that are responsive to environmental feedback and inclusive community inputs.

Major challenges in managing commons today:

- **Environmental degradation:** Addressing the impact of climate change and pollution on natural resources.
- **Resource overuse:** Managing the demand on resources due to population growth and overconsumption.
- **Technological impact:** Adapting to the digital transformation and its effects on traditional commons management.
- **Socio-political issues:** Navigating complex political dynamics and ensuring equitable access and distribution of resources.
- **Economic pressures:** Balancing economic development with sustainable resource management.

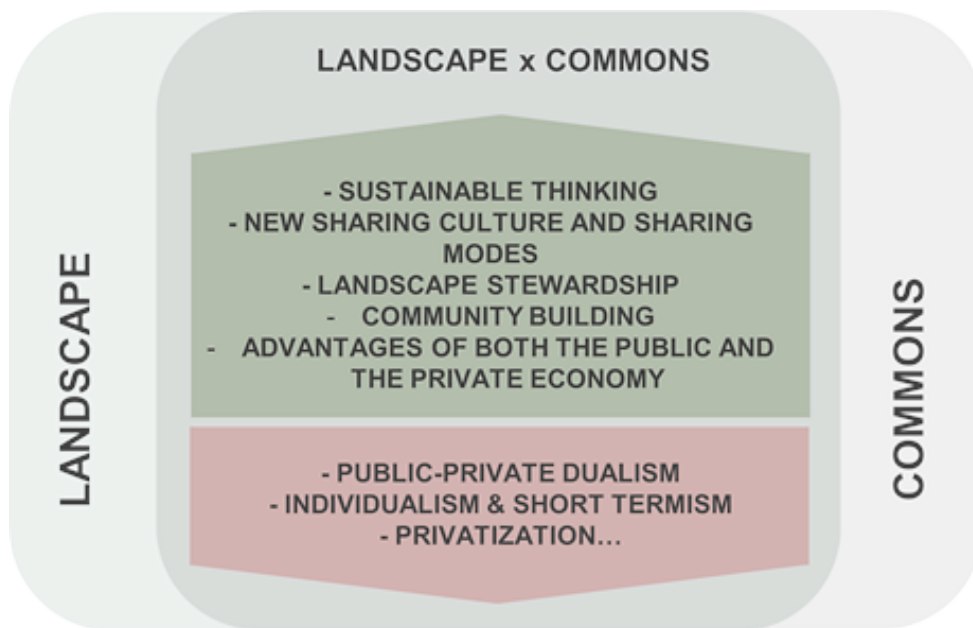
These challenges require innovative, adaptable, and inclusive approaches to ensure sustainable and equitable commons management.

The role of commons for landscape economy

Commons play a pivotal role for the landscape economy, serving as a cornerstone for achieving economic, social, and environmental goals. In the following we present some important arguments of how commons contribute:

1. **Resource stewardship:** Commons promote responsible resource management, ensuring that ecosystems are conserved and maintained for future generations, aligning with environmental sustainability.

2. **Equity and inclusivity:** Commons uphold principles of equity and inclusivity, providing access to resources for all, regardless of socioeconomic status, thereby addressing social sustainability.
3. **Community empowerment:** Commons empower communities to actively participate in resource governance, fostering social cohesion, trust, and self-reliance, contributing to both social and economic sustainability.
4. **Innovation and adaptability:** Commons often serve as laboratories for innovative governance models and practices. Their adaptability to changing needs and challenges contributes to economic sustainability through innovation.
5. **Local and global impact:** Commons management has both local and global relevance, addressing regional issues while contributing to global challenges such as climate adaptation and biodiversity conservation.
6. **Resilience:** Commons enhance the resilience of communities and ecosystems in the face of environmental and societal shocks, a key aspect of sustainable development.
7. **Interconnectedness:** Commons management recognizes the interconnectedness of ecological, social, and economic factors, aligning with a holistic approach to sustainable development.



Some opportunities (green) and challenges (red) affecting the commons in the landscape (source: authors)

Dependencies of commons and landscape economy

The interdependence of commons and landscape economy has deep historical roots and contemporary relevance, necessitating an integrated management approach that encompasses both material and immaterial resources.

Commons in social and community development

This section explores the critical role of commons in the social and economic landscapes of communities. Here, the term *commons* is understood as shared resources that are integral to community life, extending beyond mere physical assets to encompass social and economic dimensions. The focus is on how commons intertwine with and bolster the social economy, thereby contributing to the economic development of communities.

Central to this exploration is an analysis of the rights associated with landscapes, such as access and perception, and their influence on how communities

interact with their environment. This inquiry into landscape rights is vital for understanding the complex ways in which communal spaces shape and are shaped by the people who use them.

Connection to social economy and community economic development

Commons, as shared resources and spaces, play a crucial role in fostering social economies where the focus is on community benefit rather than individual profit. This approach aligns with principles of sustainability, equity, and collective well-being. In community economic development, commons-based initiatives can lead to more inclusive, participatory, and resilient communities. Such initiatives often emphasise democratic governance, ensuring that all members have a voice in managing and benefiting from common resources. This connection underlines the potential of commons to transform local economies and social structures, prioritising communal needs and values.

Rights related to the landscape, perception of landscape, and access to land

These rights are central to the concept of commons. They encompass the idea that landscapes are not just physical spaces, but also hold cultural, ecological, and social significance for communities. The perception of landscape is integral to understanding how communities interact with and value their surroundings. Access to land, including the right of way and the use of natural resources, is crucial for sustaining community practices and traditions. These rights highlight the need for inclusive and equitable management of landscapes, ensuring that they serve the broader interests of the community rather than just private or commercial entities.

Right to landscape and access to land

The European Landscape Convention highlights the collective right to enjoy urban, rural and wild nature's beauty, emphasizing the importance of landscape perception. This extends to the right of way for walking, underlining the importance of access to land, ownership rights, and benefits associated with it.

The '**Right to the City**' as defined by Doina Petrescu in *The Handbook of Commons* is a concept that encompasses the entitlement of all urban inhabitants to shape and influence the development, spaces, and governance of their cities, ensuring equitable access and democratic participation in the urban environment.

Economic perspectives of the commons

Private, public, and common goods: In the context of commons, economic perspectives imply the differentiation between private, public, and common goods. Private goods are characterised by their exclusivity and rivalry in consumption. Public goods, in contrast, are non-excludable and non-rivalrous, making them accessible to all members of society. Common goods or common pool resources, however, are resources shared within a community or group, often necessitating collective management and sustainable practices to prevent overuse. The governance of these commons highlights the need for balancing individual and collective benefits, fostering community engagement, and promoting sustainable economic models. Understanding these distinctions is crucial for effective management and policymaking in landscape and environmental economics.

The balance between private, public, and common goods is a complex and dynamic challenge that plays a crucial role in shaping societies and economies. Each category of goods has distinct characteristics and implications:

Private Goods

Characteristics: Excludable and rivalrous, meaning individuals can be excluded from access, and one person's use diminishes availability for others.

Implications: Private goods incentivise individual

ownership, leading to market-driven production, consumption, and investment. They can foster innovation and efficiency due to competition.

Challenges: Over-reliance on private goods can lead to inequalities and exclusion, as those who can afford access benefit the most. Monopolies and over-exploitation of resources are potential downsides.

Public Goods

Characteristics: Non-excludable and non-rivalrous, meaning everyone has access, and use by one person does not diminish availability for others.

Implications: Public goods provide essential services like national defence, clean air, and public parks. They are typically funded through taxes and government provision, contributing to the common welfare.

Challenges: Can face the *free-rider problem*, where individuals benefit without contributing, potentially leading to underfunding or overuse.

Common Goods (or Common-Pool Resources):

Characteristics: Non-excludable but rivalrous, meaning access is open, but excessive use can deplete the resource.

Implications: Common goods are often managed by communities, combining individual and collective interests. Effective management ensures sustainability and equitable access.

Challenges: Common goods can suffer from overuse, degradation, and the *Tragedy of the Commons* if not managed properly. Balancing individual and collective needs is essential.

Social economy and economic community development principles

While there is an inherent connection between commons and the broader framework of social economy and community economic development, it is essential to delineate specific principles that directly influence commons management. These principles not only prioritize people and social goals over capital but also imbue the management of commons with unique characteristics.

Key aspects include:

Voluntary Participation and Democratic Governance: Encouraging open membership and ensuring that decisions are made democratically, reflecting the collective will and best interest of all stakeholders.

Balancing Individual and General Interests: Striking a balance between serving the needs of individual members or users and addressing broader community concerns.

Solidarity and Responsibility: Emphasising mutual support and accountability within the community, fostering a sense of shared responsibility for the welfare of the commons.

Autonomy and Independence: Operating independently from external control, particularly from public authorities, to ensure that community needs drive decision-making processes.

Sustainable reinvestment: Channeling profits or surplus back into the community or towards sustainability activities, rather than individual gain.

The balance between private, public, and common goods has a profound impact on both communities and economies.

Communities:

Private Goods: Offer individuals ownership and exclusive access, leading to individual incentives for resource conservation and investment. However, this can result in exclusion and inequalities within communities.

Public Goods: Ensure universal access, benefiting entire communities. However, they may suffer from the *free rider problem*, where individuals benefit without contributing.

Common Goods: Promote collective resource use, fostering cooperation and community cohesion. However, without proper management, common goods can be susceptible to overuse and degradation.

Economies:

Private Goods: Drive market-based economies, incentivizing production and consumption. However, excessive privatization can lead to monopolies and inequities.

Public Goods: Provide essential services and infrastructure, contributing to economic development. However, funding and provision challenges can arise.

Common Goods: Encourage collaborative and sustainable resource use, supporting local economies. However, mismanagement can result in resource depletion and economic decline.

Challenges and opportunities in managing rural and urban commons

Managing rural and urban commons presents distinct challenges and opportunities. In rural areas, challenges include maintaining ecological balance, protecting traditional practices, and dealing with issues like land encroachment and privatisation. Opportunities lie in leveraging rural commons for sustainable agriculture and community-led initiatives.

In urban settings, challenges involve managing space scarcity, addressing gentrification, and ensuring equitable access to common resources. However, urban commons offer opportunities for fostering community engagement, creating green spaces, and promoting sustainable urban development. Balancing

these challenges and opportunities is crucial for effective commons management in both rural and urban landscapes.

In the landscape economy, key sustainability conflicts and tradeoffs often revolve around the balance between environmental conservation and economic development. Conflicts may arise between preserving natural landscapes and exploiting them for agricultural, industrial, or urban development. Tradeoffs can involve decisions between short-term economic gains and long-term ecological health. Additionally, there's a challenge in ensuring equitable access to resources while managing them sustainably. Balancing these conflicting interests and tradeoffs is crucial for achieving a sustainable landscape economy.

Material and immaterial resources in the landscape economy

Material resources, such as water, forests, and pastures, have been traditionally managed for communal benefit, while immaterial resources include cultural practices, knowledge systems, and digital spaces (Ostrom, 1990). The value they add to the landscape economy, especially in terms of tourism, social cohesion, and sustainable development, cannot be overstated (Bollier, 2012).

In this section, we delve into the multifaceted nature of landscapes as common goods, categorising them

into material aspects, services, and goods, and examining their embedded social, economic, and democratic values. This exploration is enriched with practical examples to illustrate these concepts.

Categorization of Landscape Resources: Material, Services, and Goods in Landscapes:

Material resources: For instance, the Amazon rainforest serves as a crucial material resource, providing timber and medicinal plants, while also being a key ecological asset.

Services provided by the landscape: The Great Barrier Reef in Australia exemplifies services, offering biodiversity conservation and acting as a barrier against storms.

Goods derived from the landscape: The vineyards of Bordeaux, France, demonstrate how landscapes can produce valuable goods like wine, contributing significantly to the region's economy.

Social, economic, and democratic values of landscape commons:

Social Values: The Central Park in New York City illustrates social values, acting as a communal space for recreation and cultural events, thereby fostering community cohesion and urban well-being.

Economic Values: The Dutch tulip fields show economic value, attracting tourists worldwide and boosting local economies through agro-tourism

Democratic Values: The community-managed urban gardens in Detroit, Michigan, highlight democratic values, where local residents collectively decide on the use and management of these green spaces, promoting community empowerment and participatory governance.

Economic implications of landscape commons

The utilization of common resources for economic development must be balanced against their preservation for future generations. This dichotomy has been discussed extensively in the literature, exploring the consequences of both exploitation and conservation (Hardin, 1968). The economic implications are vast, ranging from the maintenance of biodiversity to the promotion of eco-tourism and local economies (Harvey, 2012.).

Value creation within the commons

Value creation within the commons framework involves generating tangible and intangible benefits for the community through shared resources and collaborative efforts. This includes fostering environmental sustainability, enhancing social cohesion, and supporting economic development through communal activities and projects. By prioritising community needs and interests, the commons approach leads to the creation of shared value that benefits all participants, contributing to overall well-being and resilience. This value creation is often driven by principles of equity, sustainability, and collective governance, ensuring that the benefits of

common resources are accessible and distributed fairly among all members of the community.

KPIs for the Commons

Identifying Key Performance Indicators (KPIs) is a crucial step in measuring the success of commons-based initiatives for the landscape economy. KPIs should be tailored to reflect the unique objectives and outcomes desired in commons projects and be comprehensive, measuring not only immediate outcomes but also long-term impacts on the landscape and community.

In the context of the landscape economy curriculum, a set of dimensions and indicators have been proposed to assess and monitor the evolution of commons in the landscape. Through these multidimensional KPIs, we can gain a comprehensive understanding of the efficacy and impact of commons in the landscape, ensuring their continued relevance and effectiveness in promoting sustainable and equitable community development. These include:

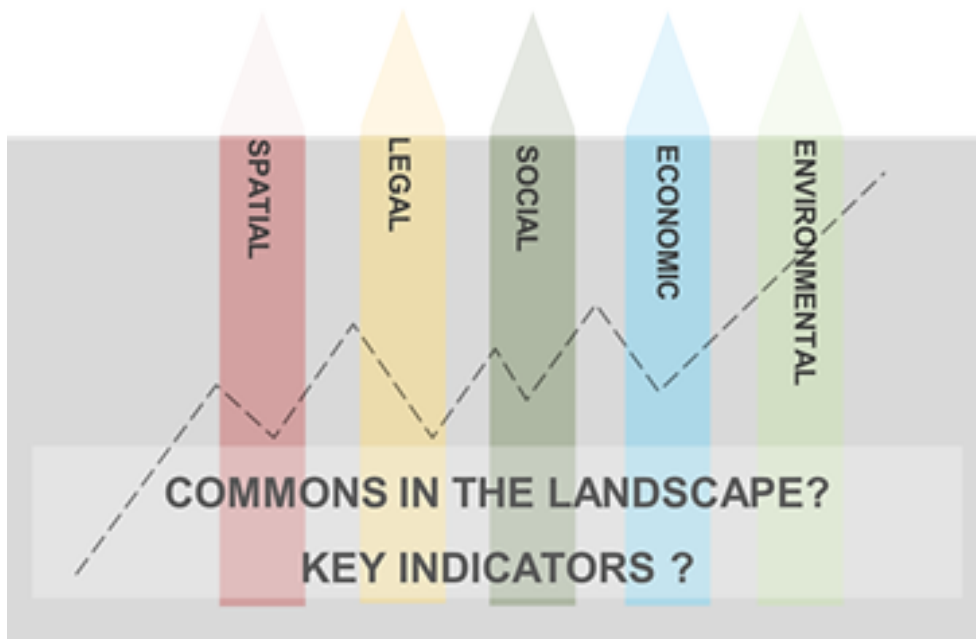
1. **Spatial:** % and connectivity of the land affected by communal regulations and use Measuring the percentage and connectivity of land impacted by communal regulations and usage. This indicator assesses the extent and coherence of areas under commons management.
2. **Legal:** Evaluating the recognition of different types of commons within the legal system and

the number of legal texts regulating their use. This highlights the legal framework supporting or hindering commons initiatives.

- 3. **Economic:** Calculating the percentage of economic activity developed within communal structures (such as social economy entities and cooperatives) and the value of products regulated and managed communally. This KPI reflects the economic impact and viability of commons-based economic models.
- 4. **Social:** % of people benefiting or participating - estimating the percentage of people benefiting from or participating in any form of communal structure, including those working in the social economy sector and those sharing resources like

cars or flats. This indicator gauges community engagement and the social reach of commons initiatives.

- 5. **Environmental:** Assessing the contribution of commons and commoners to the preservation and enhancement of environmental values and assets, including ecological connectivity and biodiversity. This KPI underscores the environmental benefits and sustainability of commons management practices.



Some possible dimensions to assess and monitor the evolution of the commons in the landscape. Source: authors



Urban Pastoralism Bulgaria 2013. Source N. Triboi

Learning from Commons Stories

While exploring *commons stories*, it remains crucial to understand the drivers of this sector. These include environmental sustainability, community empowerment, and economic resilience. The sector is marked by sustainability conflicts, such as balancing resource conservation with economic needs, and tradeoffs between traditional practices and modern development. A systems thinking approach is essential in the landscape economy, where the interconnections between ecological, social, and economic factors are considered to create holistic solutions that address these challenges and opportunities in a sustainable way.

Urban pastoralism: Transforming abandoned land into commons

Urban pastoralism is a unique and compelling case study within the broader context of commons research. This practice, which involves the management of livestock and green spaces within urban areas, has gained increasing attention due to its multifaceted benefits for both the environment and society. In this section, we explore the concept of urban pastoralism as a study case for commons, highlighting its relevance, challenges, and contributions to sustainable urban development.

Relevance to commons research:

1. *Resource management:* Urban pastoralism exemplifies the shared management of common resources, as urban green spaces are utilized collectively by pastoralists and the community.
2. *Community engagement:* It fosters community engagement and cooperation as urban residents often participate in or benefit from pastoral activities.
3. *Biodiversity conservation:* Grazing and browsing by urban livestock contribute to biodiversity conservation by maintaining open habitats and preventing overgrowth.

Challenges and solutions:

1. *Land use conflicts:* Urban pastoralism faces challenges related to competing land uses. Solutions involve collaborative land-use planning and policy support.
2. *Environmental benefits:* The practice offers ecological benefits, such as reduced fire risk and improved soil health that require recognition and preservation.
3. *Livelihoods:* Supporting pastoralists' livelihoods in urban settings is crucial for the practice's continuity.

Contributions to sustainable development:

1. *Green infrastructure:* Urban pastoralism contributes to the creation of green

infrastructure, enhancing urban resilience and mitigating climate change effects.

2. *Cultural heritage:* It preserves cultural traditions and enhances the quality of life for urban residents.
3. *Biodiversity:* By maintaining open green spaces, urban pastoralism promotes biodiversity and ecological balance within cities.

R-Urban Project: A model of commons in action

The R-URBAN initiative, based in Colombes, France stands as a pioneering case study in the realm of urban commons. This community-driven strategy aims to enhance urban resilience and sustainability by empowering citizens to actively engage in shaping their environment. The project focuses on creating a self-sustaining ecosystem that integrates living producing, and consuming within a localized urban rural continuum.



Inauguration Agrocité 2013 Source: <http://r-urban.net/>

Key components and implementation

R-URBAN consists of several innovative units in Colombes:

AgroCité: Combines urban agriculture with community spaces, renewable energy, composting, and water recycling.

RecyLab: An eco-construction unit recycling urban waste into building materials.

ECoHab: Offers cooperative and ecological housing with self-built community spaces.

AnimaLab: A domestic farm within AgroCité, contributing to the local distribution network with beehives and chicken coops.

Expansion and support: The R-URBAN strategy is being replicated in other Ile-de-France cities, adapting to local contexts. It has garnered support from the EU Life + Programme and has established partnerships across Europe, including Belgium, Spain, Romania, Germany, and beyond.

Community engagement and governance: The initiative operates under a developing charter, guiding collaboration among stakeholders and ensuring community-centric governance. Tools and resources are provided to facilitate citizen involvement, aligning the project with local needs.

Outcomes and impact: R-URBAN serves as a platform for local and regional emergent projects, sharing a

vision of sustainability and resilience. It has proven to be both a showcase and a toolkit for those interested in starting their own projects or joining the network.

Valuable lessons:

Scalable model: It demonstrates a replicable and adaptable framework for urban resilience.

Community-centric: Highlights the crucial role of active citizen participation and cooperative governance.

Environmental innovation: Shows practical applications of ecological cycles in urban settings.

Economic Resilience: Underscores the potential of cooperative economic models to enhance local resilience.

Challenges and Adaptations: R-Urban faced challenges such as bureaucratic hurdles and the need for continuous funding. To overcome these, the project relied on community support, partnerships with local organizations, and innovative funding strategies like crowdfunding. The adaptability and resilience of the project in the face of challenges underscored the potential of commons-based approaches in urban settings.

Suggestions for Education

Based on the experience gained during our curriculum development project, this subchapter frames the concept of the commons within an educational context, aiming to equip learners with a deep understanding of commons management.

Learners in this field can engage in research and analysis tasks that delve into commons case studies, exploring the intricate relationships between community action, governance models, and sustainability outcomes within the commons framework. The study of commons is an exploration of how shared resources, governed equitably and sustainably, can lead to resilient and inclusive communities, contributing to a larger landscape economy that values both people and the planet.

To facilitate these learning outcomes, a variety of methods are suggested:

- Engaging in *case study analysis* allows learners to apply theoretical knowledge to real-world scenarios.
- *Participatory workshops* simulate commons management decisions, offering hands-on experience.
- *Fieldwork* involves direct engagement with local commons initiatives, providing invaluable observational insights.
- *Collaborative projects* encourage co-creation and shared knowledge development regarding commons.

Further research suggestions

We propose several research trajectories for deeper exploration:

- Comparative studies of *governance models* across various commons worldwide.
- Research on the *impact* of urban commons on community resilience.
- *Policy analysis* to assess the effectiveness of legal frameworks in supporting commons maintenance.

Suggested research and analysis tasks for learners

To enhance practical engagement with commons management, several tasks are proposed:

- *Case study analysis*: Evaluate a successful commons project, assessing its multidimensional impacts.
- *Comparative study*: Contrast commons-based landscape management with traditional management methods, focusing on sustainability outcomes.
- *Field Survey and interviews*: Conduct fieldwork in communities practicing commons management, focusing on participation, resource sharing, and conflict resolution.
- *Policy analysis*: Examine policies affecting commons management, identifying gaps, and proposing improvements.
- *Sustainability indicators development*: Create and apply sustainability indicators specific to commons management.

- *Literature review on ecological economics:* Explore economic theories supporting sustainable management within the context of the commons.
- *Design a commons-based project:* Develop a hypothetical project addressing local landscape issues using commons principles.

Through these pedagogical strategies and research directions, this chapter aims to cultivate a nuanced understanding of commons. It prepares learners and researchers to contribute meaningfully to this evolving and vital field, equipped with the knowledge, skills, and practical insights necessary for sustainable landscape management.

Future perspectives and potential developments

The field of commons management is poised for significant developments and future perspectives that will shape resource governance and sustainability in the coming years. Some key trends and potential developments include:

Digital Commons: The expansion of digital commons, including open-source software, creative commons, and online knowledge repositories, will continue to influence the way information and technology are shared and governed.

Urban commons: The revitalization of urban commons, such as public spaces, community gardens, and shared mobility systems, will play a

crucial role in promoting sustainable and liveable cities.

Indigenous knowledge: Recognition of the value of indigenous knowledge in commons management will increase, with indigenous communities playing a central role in shaping resource governance practices.

Climate resilience: Commons will be at the forefront of climate resilience efforts, with communities adapting traditional resource management practices to address the impacts of climate change.

Policy innovation: Governments and organizations will continue to explore innovative policies and governance models for commons management, with a focus on inclusivity, equity, and sustainability.

Interdisciplinary Research: Interdisciplinary research will gain prominence, providing holistic insights into commons dynamics and informing policy and practice.

Ethical considerations: Ethical considerations, including cultural sensitivity and social justice, will become integral to commons management discussions and decision-making.

Global collaboration: Global collaboration and knowledge-sharing networks will facilitate the exchange of best practices and solutions in commons management. An example is the Open Landscape Academy (www.openlandscapeacademy.org).

Technological advancements: Technology, including blockchain and decentralized systems, will offer new

tools for transparent and decentralized commons governance.

Education and awareness: Increased education and awareness initiatives will empower communities and individuals to actively engage in commons management.

The future of commons management holds promises for addressing contemporary challenges while promoting sustainability, equity, and community well-being. As our understanding of shared resources evolves, the field will continue to adapt and innovate, offering solutions to complex societal and environmental issues.

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