

Introduction

#4: Amenity services break-out

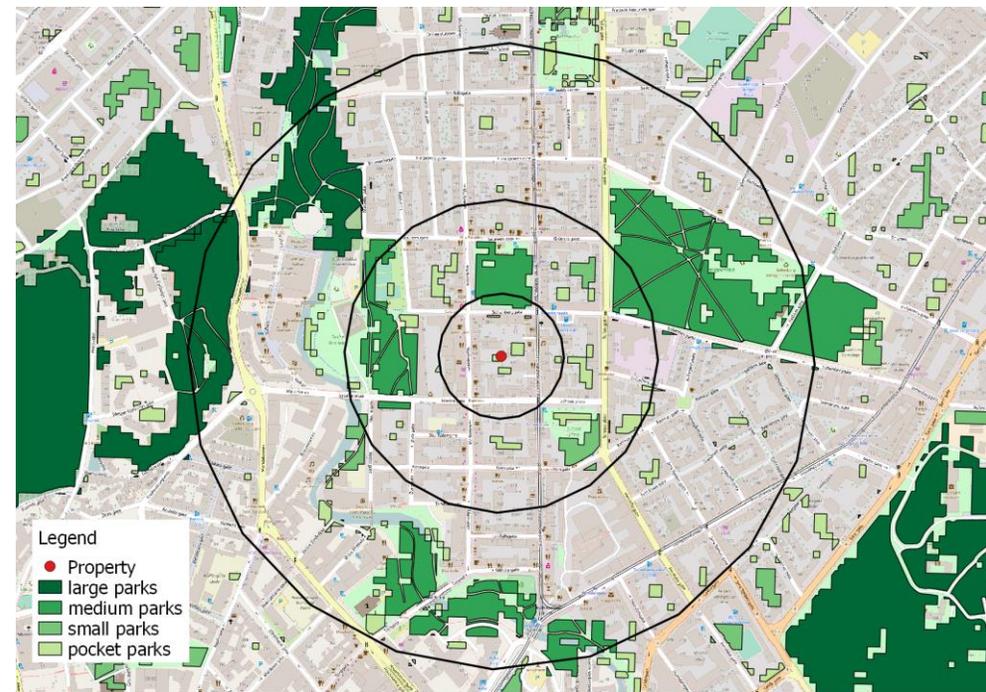
David N. Barton (Norwegian Institute for Nature Research) and
Kristine Grimsrud (Statistics Norway)

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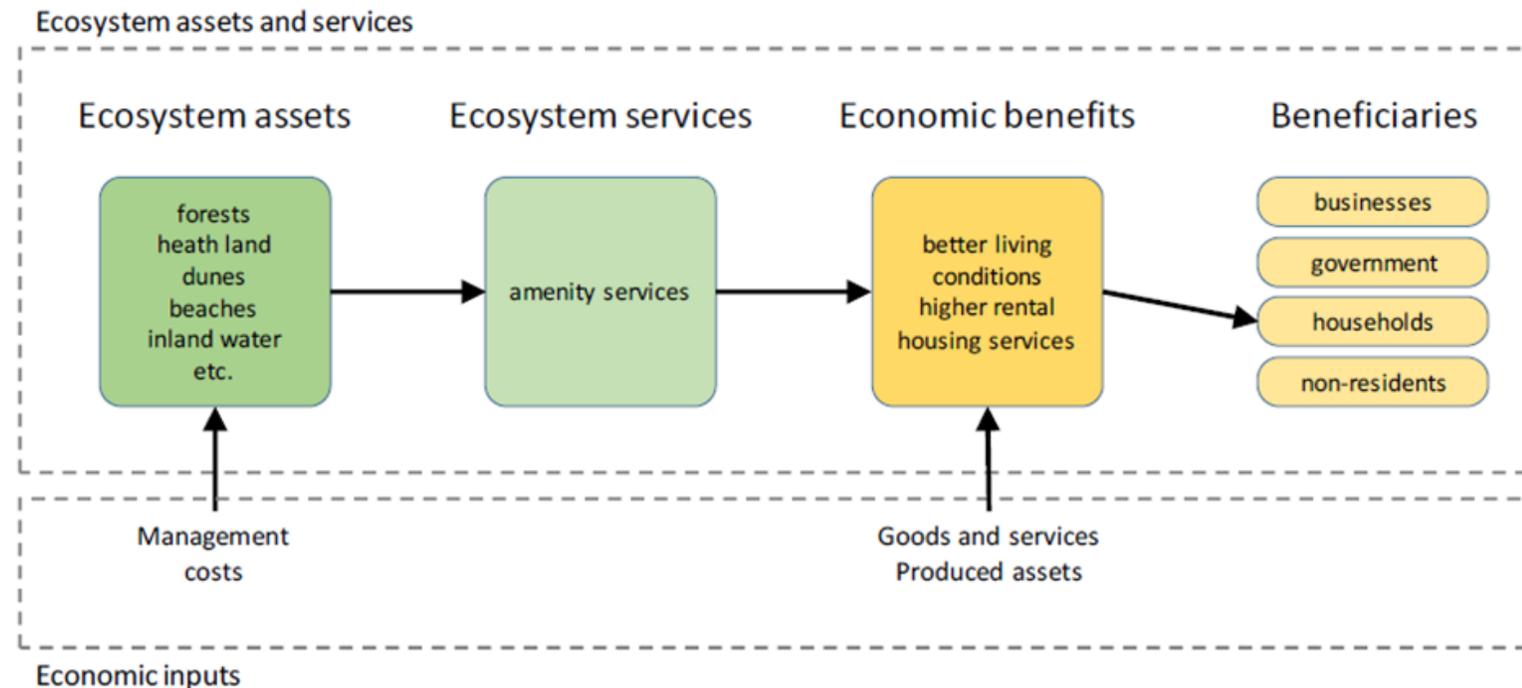


Map: Megan Nowell, NINA

Amenity services introduction

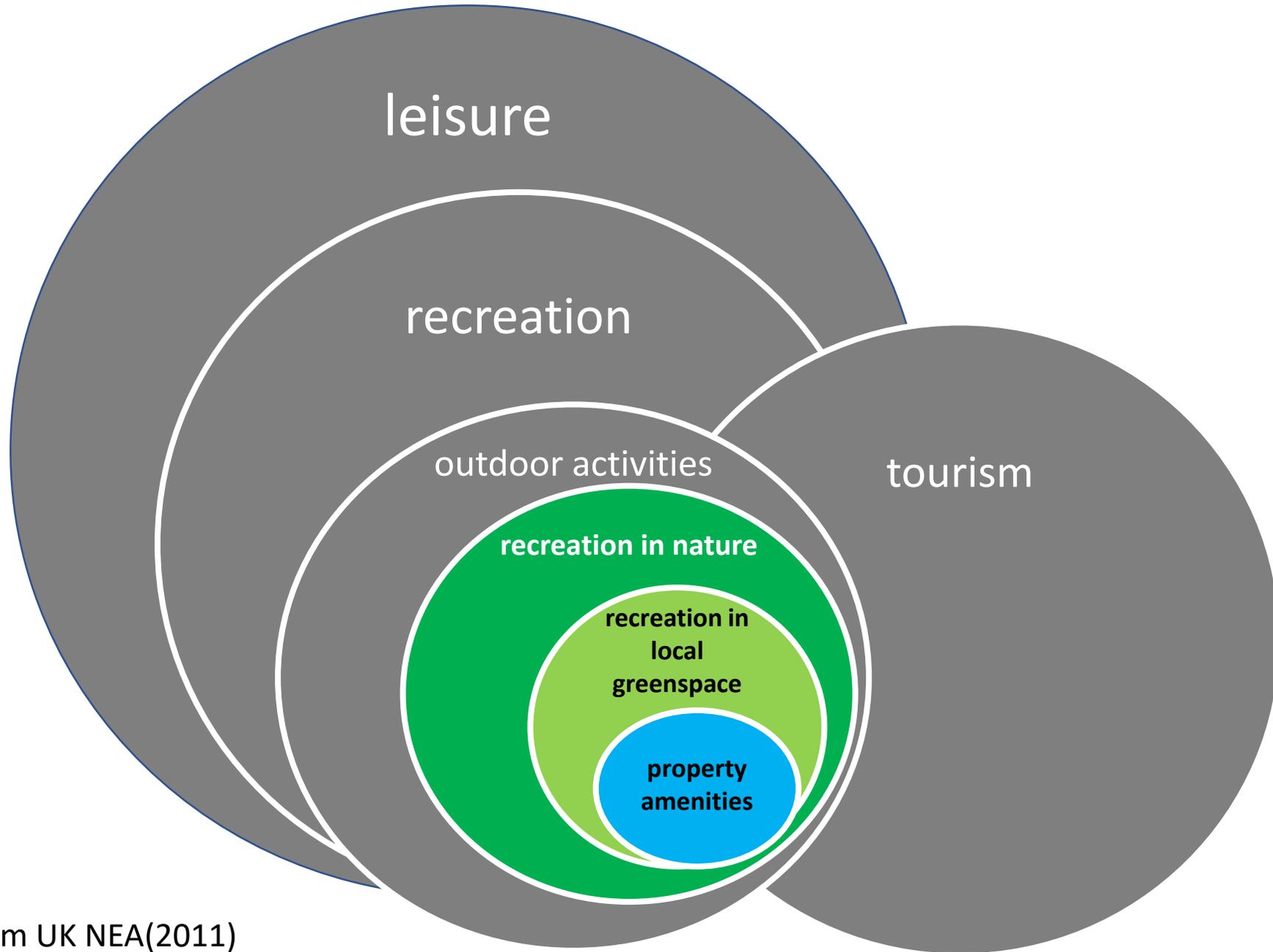
1. measurement boundaries or conventions
2. methods physical and monetary

Figure 4.8.1. Definition of the ecosystem service and benefits for amenity services



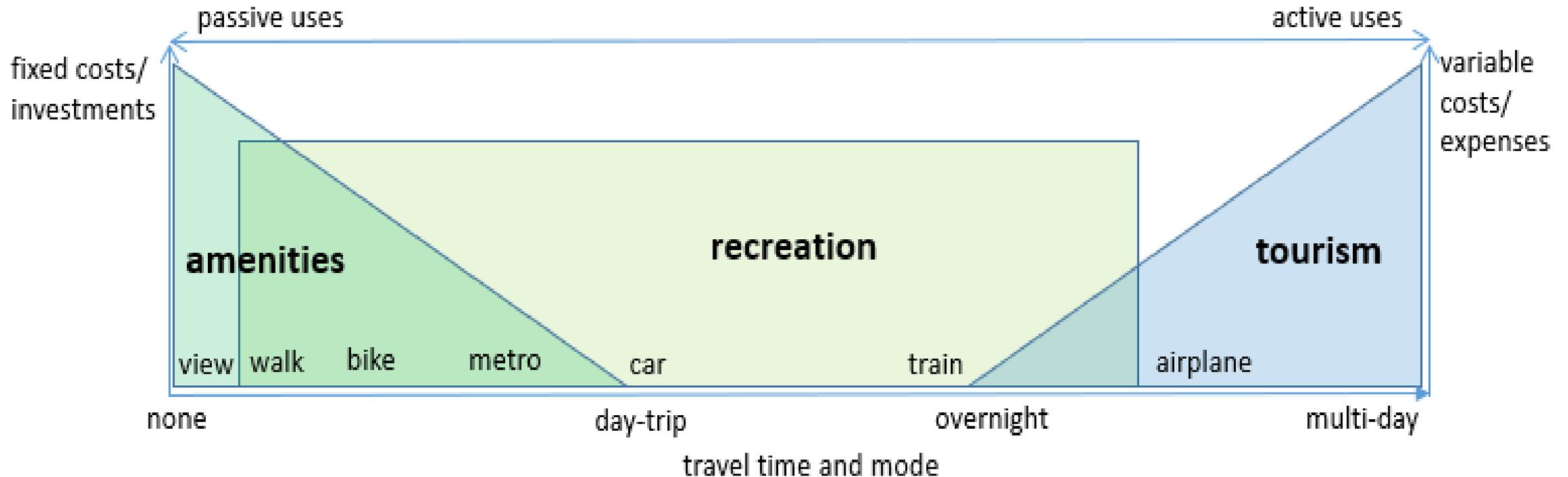
Source: ([CBS](#), Horlings et al. 2020)

1. Measurement boundaries and accounting convention issues



Source: adapted from UK NEA(2011)

Measurement boundaries: amenity-, local- and tourism-related recreational service use overlaps spatially and may be double counted



'Amenity service' (tentative) definition in SEEA EEA has overlapping measurement boundaries with 'local recreation services'

Cultural services		
Recreation-related services => households in general	Tourism recreation-related services	Recreation-related services are the ecosystem contributions, in particular through the biophysical characteristics and qualities of ecosystems, that enable people to use and enjoy the environment through physical and experiential interactions with the environment . They are final ecosystem services. A distinction is made between local and tourism related services to reflect the type of visitor engaging with ecosystems.
	Local recreation-related services	
Amenity services => property owners		Amenity services are the ecosystem contributions to local living conditions , in particular through the biophysical characteristics and qualities of ecosystems, that provide benefits including recreational opportunities , visual aesthetics and lower levels of air and noise pollution. They are final ecosystem services.

Source: SEEA EEA Revision Ch.6 (July 2020) for Global Consultation

Amenity service: "Contributing to the desirability of a place or building" ([Havinga et al. 2020](#))

2. **Amenity service measurement challenges using hedonic pricing**

- greenspace **extent** (size) is an indicator of **condition** (functionality)
- accessibility of **private** garden greenspace, apartment buildings **common** greenspace, versus **public** parks
- density or proximity **measure** of greenspace ?
- spatially **patchy GIS data** on neighbourhood greenspace condition
- **non-linear** and spatially heterogeneous **distance decay** of amenities' marginal contribution to property price
- distinct **property market segments**: houses owned, apartments rented
- actual sales **price or assessed value** in property register?
- annualization of the asset value (housing lifetime, discount rate)

Example: Asset value of urban green space is sensitive to physical measurement choice: proximity or density indicator of amenity?

proximity



density



Figure 2: The two measures for park supply - proximity (left) figure 2a and park density (right) figure 2b. The (red) spot indicates the property and for the distance measure the arrow indicates the bee line distance to the nearest green area (< 300 m). On the left, the circle indicates the 1,000 m radius around the same property; a circle spanning slightly more than 314 ha.

-> differences in service providing area of asset



Figure 4: The proximity catchment area (small circle) and density catchment area (larger circle) around the Horticultural Garden of University of Copenhagen.

Selected take-home messages

Measurement boundaries:

- ‘Local recreation’ and ‘amenity’ service **SEEA EEA revision definitions overlap**
- Amenity service value is a **subset** of local recreation welfare value that is internalised in property transactions

Conventions to avoid double counting:

- **minimum trip duration** to separate from local recreation
- **identify separate variables for proximity, viewshed and environmental qualities, other urban amenities**
- estimate **distance decay** curves (to aggregate the marginal amenity value to properties, for each greenspace)



Examples of amenity services in ecosystem accounting

Biophysical mapping of amenities supply - accessibility & condition

UK vegetation in private open space ([ONS](#) 2019)

Monetary – hedonic property pricing for ecosystem asset valuation

- DK asset value of urban park (Panduro et al. 2018)
- UK asset values of urban blue and green (ONS, Nafilyan and Lorenzi 2019)
- NL monetary ecosystem accounts ([CBS](#), Horlings et al. 2020)
- D comparison of urban parks amenity value to land prices (Grunewald et al. 2020, ESP 2020)

#4: Amenity services discussion

Questions for discussion:

- What methods can be used to measure these services in physical and monetary terms?
- What measurement boundaries or conventions should be established to distinguish these services from related services such as concerning recreation?