URBAN LAND USE SESSION

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Environmental aspects of urban sprawl

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Two urban spatial trends

1) World is rapidly urbanizing
   - over 50% of the world’s population live in cities
   - in Europe 73%

2) The density of cities is decreasing: urban sprawl
Population Change
Boroughs in proportion to population size in 1939

www.citymetric.com/skylines/8-more-ways-visualising-londons-growth-question-density-676
Urban sprawl

- Low-density, car-dependent, uncontrolled building spreading out over large areas

- Changes occur gradually and can be easily ignored but have cumulative impact

- Reasons for urban sprawl vary and are place-dependent
Environmental aspects of urban sprawl

– Increased traffic and air emissions

– Inefficient infrastructure and reduced resource-efficiency

– Loss of possibility for other land uses (agriculture, forestry, wetlands, green spaces, nature conservation)
Specific case: Shrinking cities and sprawling structure
How to tackle the sprawl?

Case 1: Attention to the various mobility concepts

Figure 3  Conceptual combinations of three urban fabrics
Source: Kosonen, 2013; 2015
Case 2: Attention to the costs of urban sprawl

NAOF audits on urban sprawl (2010 & 2011):

• Sprawling has environmental costs
• When local authorities give premissions to construct outside planned are, they might first consider the higher construction costs of infrastructure
• However:
  1. The maintenance costs exceed rapidly the construction costs of infrastructure
  2. The costs of basic public services (e.g. school transportation, home care for elderly people) in sprawled structure soon exceed the infrastructure costs
Adversial fiscal tools

• Land use planning is usually the responsibility of local authorities

• But state has fiscal tools that affect urban sprawl
  – E.g. tax deduction for commuting costs (1.4 billion euro in 2005) that go mainly to private car owners without public transport possibilities
  – Indirect incentive to move outside planned areas
Sustainable development as an analytic tool to recognize real costs

1. Attention to the long time perspective (infrastructure maintenance in the long run)
2. Look beyond the administrative silos (besides pipelines and roads also about social and health care)
3. Take note of the spatial dynamics (look beyond city administrative boarders)
4. Pay attention also to the environmental costs (e.g. CO₂, air pollution costs to health sector)
GROUP WORK
What are the conflicting interests of land use and other developments?

• Conflicts with nature protection, agriculture, housing, new residential areas, transport, roads and settlements, economic development such as airports, but also environmentally friendly structures e.g. windmills
  – “Everybody wants to have the cake”

• Place-specific issues:
  – Land take that tourism requires (Cyprus)
  – Empty spaces in cities due to various reasons (e.g. ownership reasons, brownfields)
  – Residential land is taken from agriculture, and as a consequence agricultural land is spear to the desert (Egypt)
What mistakes states have made in land use planning from the environmental perspective?

• Weaknesses urban and regional level planning framework
• Problems in seeing the long term timeframe
• In some countries the environment has not been a topic at all until recently
• Transport system a key area
• Intended actions such as corruption, specific interests, political choices or structures related to ownership of properties
How can audits help?

- Point out the importance of the urban sprawl
- Raise the topic into the public discussion and increase the awareness among the citizens
- Help stopping more damage being done
- Highlight the costs hand help to see the big picture
- Pay attention to coordination between authorities or provide an opportunity to report on irregularities and compliance with laws
- Pay attention to the monitoring
- Lay a constructive overarching approach and give valuable examples from other countries