

Planning on the Larger Scale

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**Actual Problems of Landscape Sciences:
environment, society, politics
9-13 September, 2019, Tbilisi, Georgia**




Planning on the Larger Scale

- The big picture
- Driving forces influencing change
- Planning frameworks, hierarchies, principles
- Planning approaches
- Examples



Key global megatrends

European Environment Agency, State of the Environment Report 2010/2015

- An urban world: spreading cities & spiralling consumption
- Increasing severity of the consequences of climate change
- Decreasing stocks of natural resources
- Intensified global competition for resources
- Increasing global divergence in population trends
- Increasing unsustainable environmental pollution load
- Changing patterns of global disease burdens
- Accelerating technological change
- Continued economic growth?
- Global power shifts – from a uni-polar to a multi-polar world
- Environmental regulation and governance, increasing fragmentation, but converging outcomes



Global Challenges: Essential Human Needs

- Agriculture: Intensification of agricultural production
- Water: Not enough (droughts) or too much (floods, extreme events)
- Energy: Increasing demand (fossil, nuclear, renewables)
- Biodiversity: Decreasing
- ...



Planning on the Larger Scale

- The big picture
- Driving forces influencing change



Driving forces influencing change

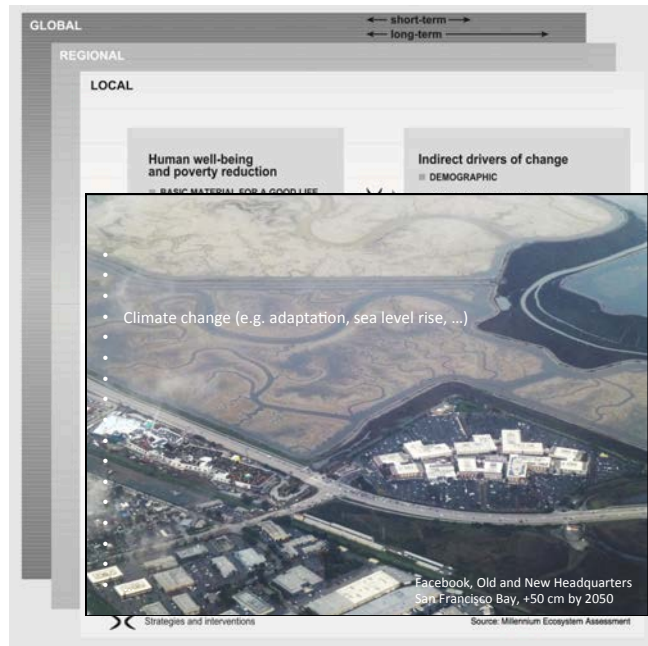
Categories of driving forces
(e.g. Hersperger & Bürgi 2009)

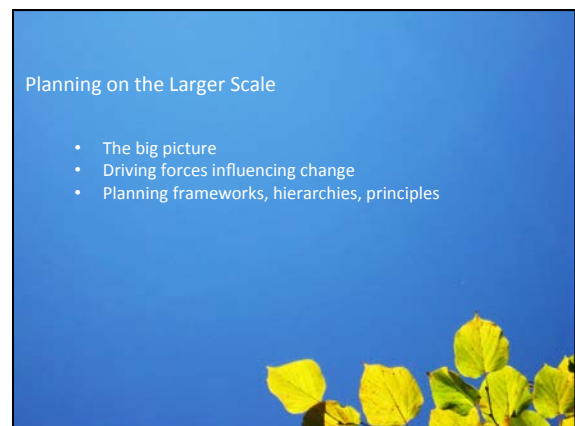
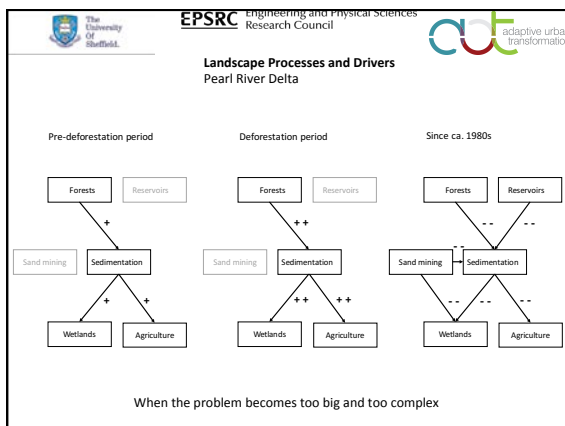
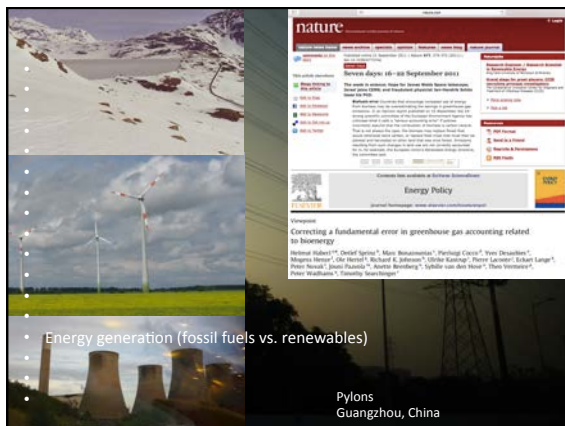
- Socio-economic
- Political
- Cultural
- Technological
- Natural



Driving forces

- Policy, politics and legislation (e.g. EU policy, subsidies)
- Globalisation (displacement / outsourcing of land use via trade)
- Demographic change
- Climate change (e.g. sea level rise, adaptation, ...)
- Water: droughts, flooding
- Forestry, agriculture (e.g. organic vs. conventional)
- Land abandonment, vegetation succession
- Biodiversity (invasive species)
- Consumption patterns
- Tourism
- Extraction of mineral resources
- Industrial production
- Infrastructure (transport)
- Energy generation (fossil fuels vs. renewables)
- Resource efficiency, waste management
- Urbanisation
- ...

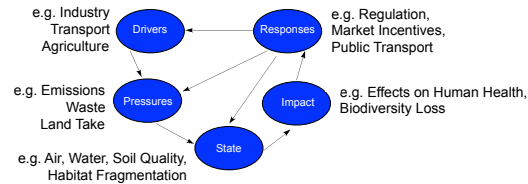






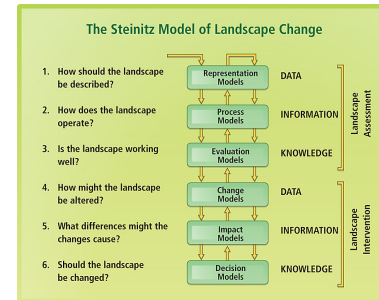
Planning Process: Project-oriented, *reactive* Approach (cf. Lange & Schmid 2000)

DPSIR – Model: European Environment Agency 2001
(adapted)



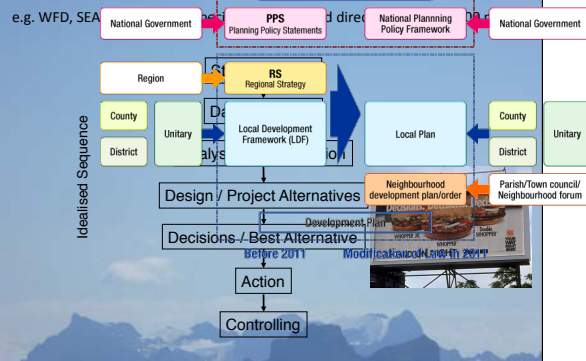
Planning Process: Project-oriented, *reactive* Approach (cf. Lange & Schmid 2000)

Framework for Landscape Planning (Carl Steinitz, Harvard University 1995)

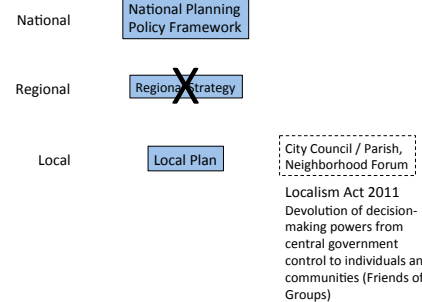


esri.com

Planning Process: Spatially-oriented, *strategic* Approach (cf. Lange & Schmid 2000)



Planning System

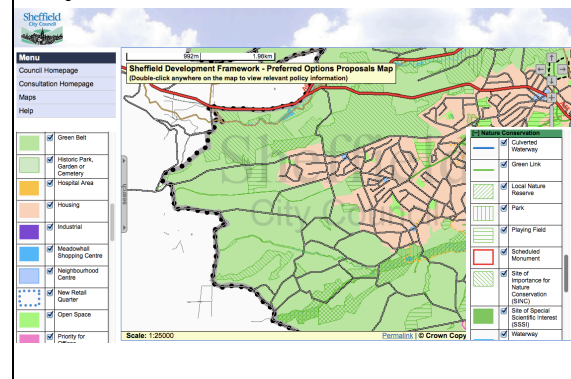


Planning, Protected Areas, **Green Belt** (The Town and Country Planning Act, 1947) RTPI

The Green Belt is a designation for land around certain towns, cities and large built-up areas, which aims to keep the land permanently or largely undeveloped. The purposes of the green belt are to:

- check the unrestricted sprawl of large built-up areas
- prevent neighbouring towns from merging
- safeguard the countryside from encroachment
- preserve the setting and special character of historic towns
- assist urban regeneration by encouraging the recycling of derelict and other urban land.

City of Sheffield Planning



Proximity to 'Nature' is important

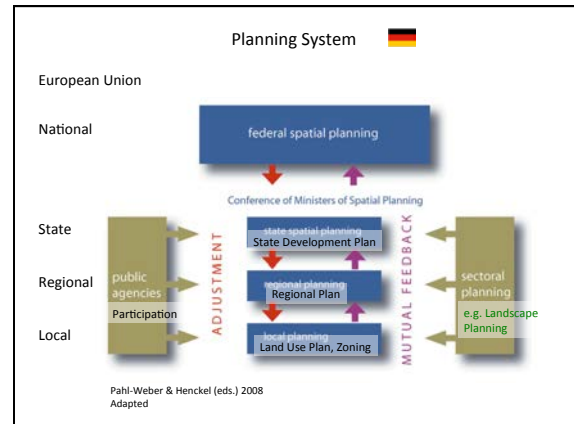


COUNTRYFILE
WILD ROMANTIC DARTMOOR
Handmade Christmas

VOTE FOR THE BEST UK CITY FOR COUNTRYSIDE LOVERS
26 November 2014

<http://www.countryfile.com/poll/vote-best-uk-city-country-lovers>

☐ London
☐ Birmingham
☐ Leeds
☐ Glasgow
☐ Sheffield
☐ Bradford
☐ Edinburgh
☐ Liverpool
☐ Manchester
☐ Bristol
☐ Wakefield
☐ Cardiff
☐ Coventry



International / Cross-border Cooperation

Regio Basiliensis

AKTUELL UNTERNEHMEN FÖRDERPROGRAMME KOORDINATIONSTELLE MITGLIEDER ÜBER UNS

Strategische Partnerkonferenz
Bildung und Wirtschaft
Verkehr
Lebensraum
Gesundheit
Wissenschaft und Forschung
Umwelt
Kultur

Lebensraum

International / Cross-border Cooperation

Interreg

Strategische Partnerkonferenz
Bildung und Wirtschaft
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Wissenschaft und Forschung
Umwelt
Kultur

Lebensraum

Possible Causes for Problems in Planning

- Expressed in:
Rio Declaration on Environment and Development (1992)
Århus convention (1998)
European Landscape Convention (2000)
European Directive on Public Participation (2003)
New Urban Agenda, Habitat III (2016)
- insufficient Participation of the Stakeholders
- a Communication and Information Problem

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Recent approaches and theoretical foundations considered in planning

- *Sustainable development* (to meet the needs of the present without compromising the ability of future generations to meet their own needs)
- *Natural capital* (natural assets, biotic and abiotic)
- *Ecosystem services* (supporting, provisioning, regulating, cultural)
- *Multifunctionality* (e.g. forestry providing production and recreation function)
- *Green Infrastructure* (delivering a wide range of benefits)
- *Compact city* (vs. urban sprawl)
- *Landscape Urbanism* (landscape as the basis for cities)
- *Sponge City* (urban environment that absorbs the water)
- ...

Nature-based actions w
EEA
Nature-B
& Re-Nat




Ecosystem services
Millennium Ecosystem Assessment

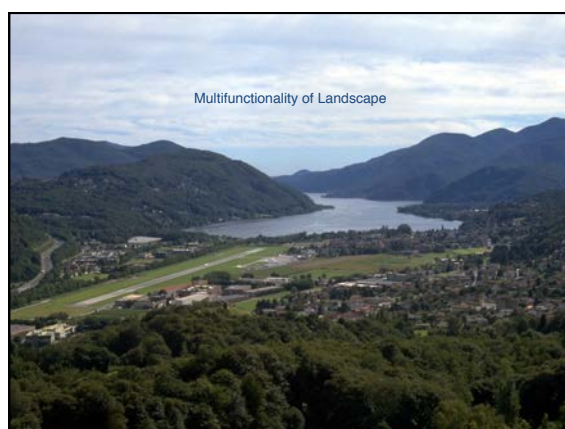
Supporting services
The services that are necessary for the production of all other ecosystem services including soil formation, photosynthesis, primary production, nutrient cycling and water cycling.

Provisioning services
The products obtained from ecosystems, including food, fibre, fuel, genetic resources, biochemicals, natural medicines, pharmaceuticals, ornamental resources and fresh water.

Ecosystem services
Millennium Ecosystem Assessment

Regulating services
The benefits obtained from the regulation of ecosystem processes, including air quality regulation, climate regulation, water regulation, erosion regulation, water purification, disease regulation, pest regulation, pollination, natural hazard regulation.

Cultural services
The non-material benefits people obtain from ecosystems through spiritual enrichment, cognitive development, reflection, recreation and aesthetic experiences – thereby taking account of landscape values.



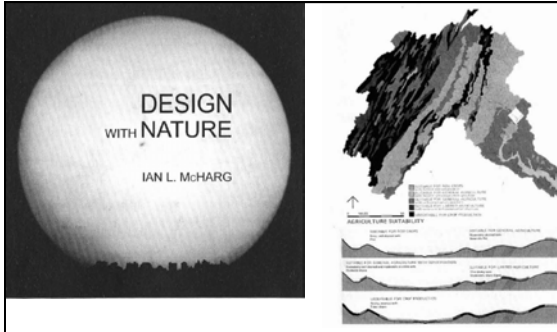
Green Infrastructure
<https://www.gov.uk/guidance/natural-environment>
Department for Communities and Local Government

Green infrastructure is a network of multifunctional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities.

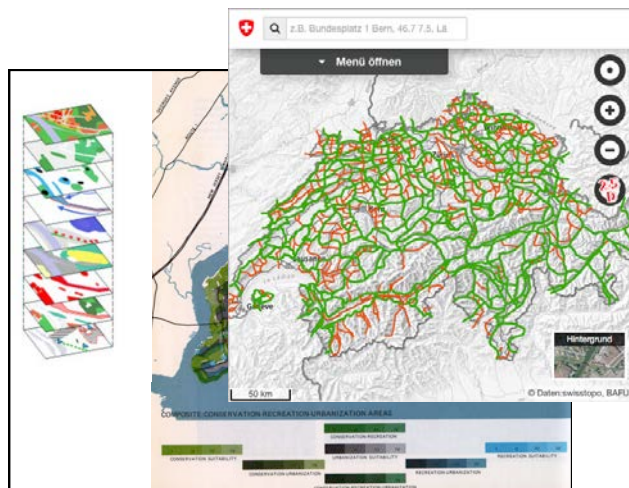
Green infrastructure is not simply an alternative description for conventional open space. As a network it includes parks, open spaces, playing fields, woodlands, but also street trees, allotments and private gardens. It can also include streams, canals and other water bodies and features such as green roofs and walls.

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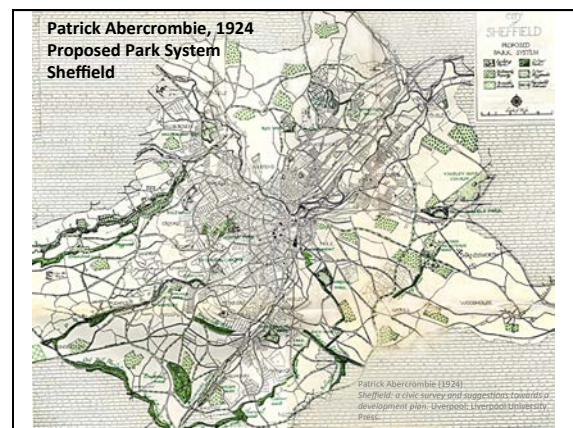
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McHarg, I. 1969 Design with Nature
Garden City, N. Y.: Natural History Press)



Switzerland
Strategic Approach
Connect fragmented Wildlife Corridors. 51 new wildlife bridges
http://www.lebensraumvernetzung.at/pr_schweiz.html





Planning on the larger scale and Landscape Planning
Take home messages ...

- Depends on which country you are in.
- Regional level in planning is important for coordination of local and national interests.
- Integration of a range of ecological concerns in planning for regional development needed, through landscape planning.
- Large number of drivers for change adds to complexity and requires complex modelling (the experts) requires involvement of stakeholders (the lay people).
- In an urbanizing world we need networks of large green spaces that are accessible by the people.

The EU is Aiming High ...
In 2050 we live well, within the planet's ecological limit. Our prosperity and healthy environment stem from an innovative, circular economy where nothing is wasted and where natural resources are managed sustainably, and biodiversity is protected, valued and restored in ways that enhance our society's resilience. Our low-carbon growth has long been decoupled from resource use, setting the pace for a global safe and sustainable society.

EU 7th Environmental Action Programme 2013.
signed by the European Parliament and Council

Thank you!

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