

Layouts and principles for a sustained services' provision:

UNESCO Biosphere Reserves as a key approach for multiple scale and urban spatial planning.

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“**BiodiverCities 2010**”

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- *Moving to town: agglomerating and compromising service provision*
- *Local governments' scale: (urban) development*
 - *Public services a way to legitimize the state*
 - *Services in time and as a matter of both „private“ & public responsibility*
- *Polycentricity regimes– networks of services; influence area & beyond*
- *The UNESCO Man and Biosphere Programme*
 - *MaB – addressing human settlements*
- *UNESCO MaB Biosphere Reserves*
 - *Spatial models for sustainable development*
 - *BR's as models of land management*
 - *Multiple scale and urban spatial planning and scenarios*
 - *Provision of services: the scale of planning*
 - *Sustainable spatial planning CEMAT, Rio and UNECE*
 - *Integrating multiple scale spatial planning*
- *Final issues*

Moving to town: agglomerating and compromising service provision



- Urbanization is primarily threatening habitat loss
- ... thus biodiversity
- Land-use decisions in urbanizing areas are mainly made at the local level,

- Land-use planning by municipal planning departments has a potentially important—but largely unrealized—role in conserving biodiversity (Stokes, Hanson et al. 2009).



- ... *largely unrealized—role in conserving biodiversity ...*

...on the other hand, local administrative units, commonly responsible for the scale at which urban development is planned, fail to integrate conservation land into their land-use plans.

- The provision of universal - public services, has been addressed as "*universal service obligations*" (USA, AUS), "*public service*" or "*services of general economic interest*" (GB), as "*service de intérêt général*" (F) and as "*Daseinsvorsorge*" (D).
- Among the diversity of the term, "*Daseinsvorsorge*" was already conceived in the late 1920s but until the 1970s understood by the State, according to E. Forsthoff as a way of State legitimation.

- Forsthoff defined the term “public services” (*Daseinsvorsorge*) as the provision of services, for and by people in their modern massified life styles, as indispensable for life.
 - Including: provision of gas, water, energy, drainage and public transport.
- A rather modern view is presented as the wide provision and coverage, subject to political responsibilities, of goods and services indispensable to life and are sustainable in costs.
 - The concept today: provision of water, gas, electricity, postal service, telecommunication and public transportation, care in case of illness, aging, disability or handicap and unemployment. ... ecosystem services’ functional conservation...
- The limits of provision remain at the core of discussion and missing definition.

Services as matter of both „private“ & public responsibility



- The last decades: marked by the process of market liberalization and privatization. Provision shifted towards one of private and public organization.

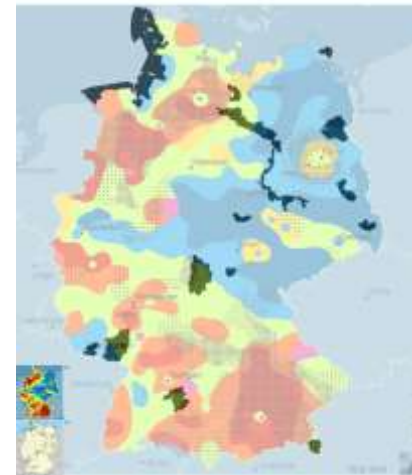
This newer arrangement has rather characterized the State as a public services' warranting actor instead of the traditional common-wealth provider.

Nevertheless, few common-wealth services can be taken by the process of liberalization and privatization and thus, most of the common-wealth services remain under public domain.



- When looking back at the spatial development of regions, **polycentricity** has proven to be a good approach for a balanced development.
- The concept links the provision of infrastructure and services with general principle or model of “decentralized concentration “ (Germany)
- The municipal character is not only defined by supplying function in benefit for its population (urban development), but includes also an influence – service provision beyond its jurisdiction.

Policentricity: influence & supplying centers' area and beyond



UNESCO MaB Biosphere Reserves: Spatial models for sustainable development



Core Area
Buffer Zone
Transition Area

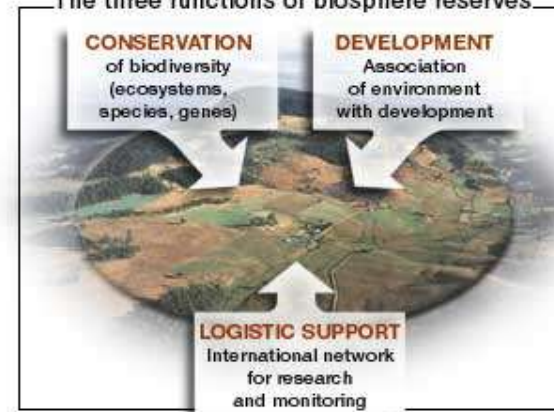
Functional zonation

- ✓ **Conservation**
 - ✓ Conservation in situ of natural and semi-natural ecosystems
- ✓ **Development**
 - ✓ Demonstration areas for sustainable uses
- ✓ **Logistic Support**
 - ✓ i.e. for research, monitoring, education, training and information exchange

BIOSPHERE RESERVE ZONATION



The three functions of biosphere reserves





- Although the Man and Biosphere program (MaB) has changed throughout its history, MaB continues to stream most of its activities through themes which are dominated by conservation aspects.
- While F. Di Castri together with M. Batisse, nurtured the birth and development of the BR concept, addressing aspects of settlements too, the idea or urban connotation has kept controversial and considered misleading to the purpose and meaning of the BRs.



- However, BRs are designated under the objective of being as models of land management and approaches to sustainable development.
- These territorial models are not only meant to include lands reserved for conservation purposes – but also for multiple other land uses.

Multiple scale and urban spatial planning.



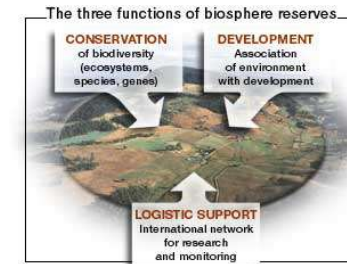
Biosphere Reserve functions

Spatial planning scale



Conservation

Logistic support



Development (growth)

Conservation &
Logistic support

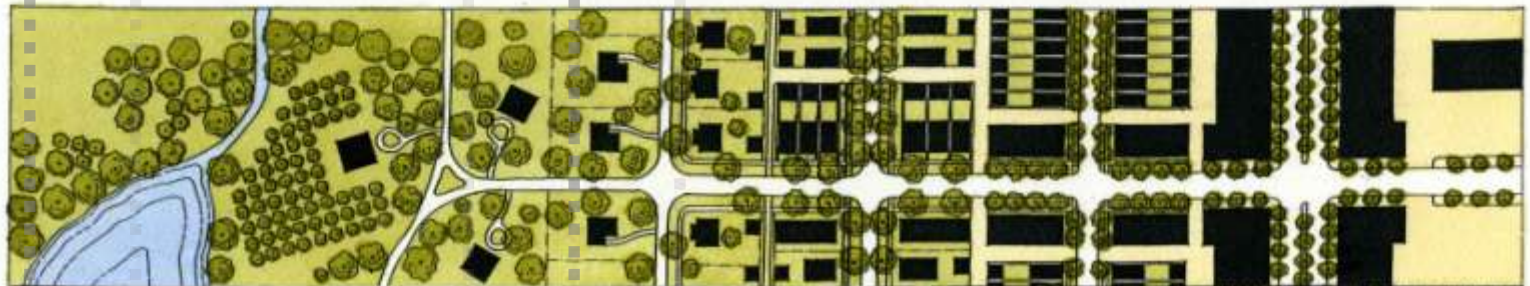
Biosphere Reserve's scenarios



Core area

Buffer, i.e.

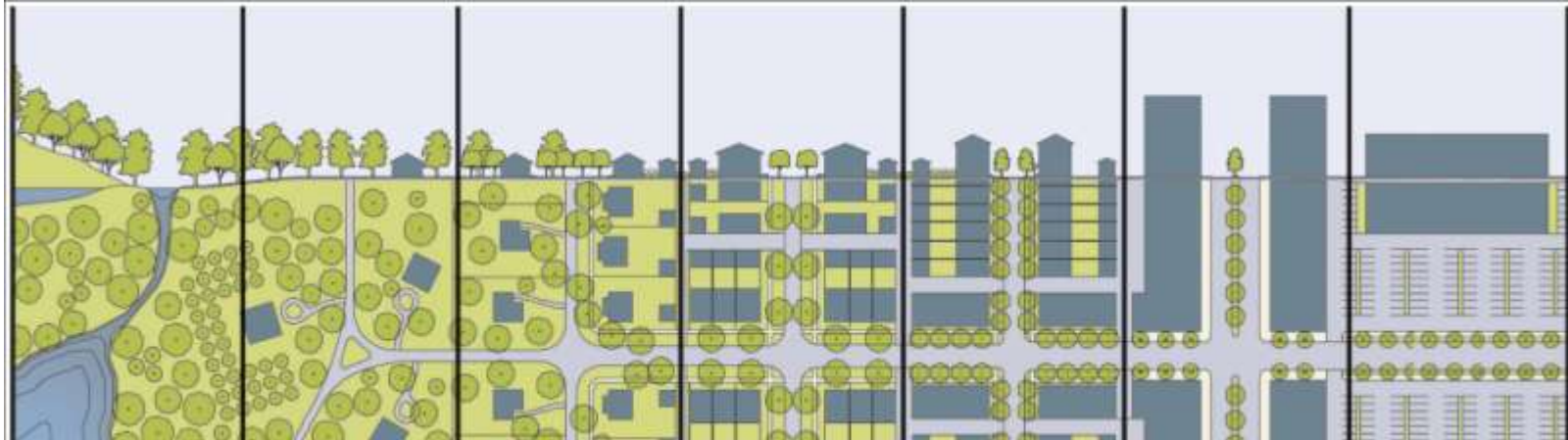
Transition



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Ibid.

Provision of services: the scale of planning



Ibid.

Ecosystem services

nutrient cycling
soil formation
primary production
food
fresh water
wood and fiber
fuel

climate regulation
flood regulation
disease regulation
water purification
aesthetic
spiritual
educational
recreational

Public services

cultural supply
education facilities
child care
public health service and
old-age provisions
finance and insurance
services
disaster relief,
fire brigade
medical services

police squad
social infrastructure (sport
venues, cemeteries, etc.)
transport infrastructure
transport services like
school & public transport
communication services
energy provision
water supply & distribution
dike construction
housing industry / public
housing)

Provision of services: the scale of planning



Ibid.



- Sustainable spatial planning is concerned with long-term scope and strategies for territories with coordinated sectoral policies and guided by the sustainable planning principles with the objective of territorial cohesion (UNECE 2008).



- 1983: CEMAT for coordinated planning
- 1992 Rio Declaration for integrated planning
- 2008: UNECE for planning principles
 - democratic principle
 - **subsidiarity** principle
 - participation principle
 - **integration** principle
 - proportionality principle and
 - precautionary principle

- Paths point to the BR tool...
 - **Sustainable spatial planning aims at:**
 - **vision** and consistent direction
 - **protect** the rights of **people**
 - **protect natural** systems
 - **efficient** use of **resources**
 - higher **quality** of **service** delivery by all spheres of **government**
 - **coordinate** actions and **investments** to ensure positive impact
 - set **priorities**
 - **avoid duplication** of effort by different departments and **spheres of government**

Moving towards the Biosphere Reserve's scope



- In urban settings, Protected Areas (PA) are a coarse tool - a land use tool without context. BR provides planning context to make the PA viable.
- CEMAT and UNECE planning principles and the UNESCO MaB BRs objectives share equivalent objectives for sustainable land use planning. Each approach has recently contributed to cross-cutting legal frameworks, sectoral policies and new governance mechanisms that can be instrumentalized through the BR designation.
- The world network of BRs; made of BR units stretch as intergovernmental designated network units that embody the interplay between geopolitics in multi-scale provision of public and ecosystem services and serve the interests of (sustainable) development.
- In response to the needs of complex and dynamic governance settings, BRs offer a flexible UN-intergovernmental tool and frame for urban & conservation spatial planning.



Thank you!

Karl-Heinz GAUDRY
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