Group Assembly Process (GAP) - Stirring Paper

Urban Transformations: Infrastructures and Degrowth

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„The quality of infrastructure rests not only on the quality of the design and construction of systems, but also on the quality of the human infrastructure that supports and manage it. Infrastructure, then, consists of the indispensable public physical and human systems that provide the nation with services" (Felbinger 1995 S. 126).

Because social and technical elements are indespensibly interwoven within infrastructural systems, they are called socio-technical infrasystems here. Infrastructures are social and physical networks which facilitate social processes in modern societies. Often they are closed „black boxes" to the citizen, who should and must not understand or change infrastructural systems.
Consumption patterns change with new socio-technical infrasystems. New highways or railways induce high-energy traffic and mobility patterns. Since post-war, the average distance between home and work has risen from 2 to 20-30 kilometers. But: missing infrasystems can also induce consumption. A lack of daily needed amenities such as working places, shops, schools, kindergartens, and many more enhance the overuse of resources.

The 2nd degrowth conference proposed

1. a moratorium on carbon & resource-intense infrasystems like nuclear, high speed trains and dams and
2. a limitation of some infrasystems such as highways, long distance transport and airports.

Likewise society should prefer local and democratically controlled infrastructure, source materials locally and regionally and support local communities which fight big infrastructure projects.
A transition to a postgrowth society encompasses changes within existing systems. But

changing existing infrasystems is harder than creating new ones, unless the old infrasystem collapses. A central tasks is, especially for urban regions, is to deliberately change seemingly working infrasystems. This means revitalisation, redensification and refurbishment for the urban system and decentralisation, flexibilisation and integration for the energy system. At the moment, local municipalities, utilities, spatial planning organisations, and infrastructure providers rather support economic growth than a transition towards degrowh and resilience.

But as agents of change, municipalities, utiilities and spatial planning organisations have a significant potential for degrowth. They can **enhance (i) the sustainable use of local resources (energy and material), (ii) sustainable settlement structures and (iii) help creating social capital, empowerment and participation[1] through more community based facilities** (Wächter 2013). Current practices of these institutions are not degrowth-oriented, but some of them constitute a valueable support on the path towards degrowth.
Given the difficult situation of missing infrastructures, there is an urgent need to explore new urban infrasystems such as urban agriculture, renewable energies on roofs and facades, opening roads for cycling, walking and recreation, utilisation of vacant buildings by bottom-up initiatives and transport systems based on cargo bikes. A different way of organising urban infrastructures will help to reduce consumption and working hours and build up resilience within the city.
To facilitate the transition process, **a share of the taxes on conventional commerce and construction could be used to fund change management**. Change managers could help to facilitate local participation and controversies on the transition of socio-technical infrasystems – and mediate conflicts. Cities should start perceiving conflict and controversy as a good thing.
What does this mean for the controversies and conflicts around in the energy-infrasystem? With the energy transition, also infrastructures change and induce social resistance. It will not be possible to always optimise the siting of infrasystems according to the availability of resources and e.g. proximity to human settlements. For example, in Germany the largest share of wind power generation is located in the sparsely populated area of Niedersachsen and Schleswig-Holstein. **If Germany wants to transition to a low carbon & degrowth-economy and avoid large scale infrastructure projects at the same time, a part of the southern settlements and the industry would have to move north.**

[1] Community based services might include child care and care of the elderly, dog-walking, car pools, bike repair shops, food cooperatives or community gardening.

Literature

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