

The tyranny of small steps- An archetypical behaviour in resource management

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Abstract

A new archetypical behaviour has been observed. The archetypical behaviour, whereby an overarching decision is undermined by small step changes on a finer resolution level is discovered to be very frequent. The small steps must be smaller than the observation resolution of the overarching system in order to be in-stoppable. The archetypical behaviour is active in many long term political conflicts where a situation appears to be slowly deteriorating over long time, apparently with no means to stop it. It is also present in situations where several administrative levels are acting on the same object, such as resource planning and permissions by local and super-regional authorities. Examples are urban encroachment on surrounding land or the slow diffusion by one population into a territory of another.

Background

There is a tendency for project development to be influenced by series of small decisions. Kahn (1966) discusses how consumers through their decisions can possess much power on the market development through a concept called “the tyranny of small decisions”. Resources in the market economy are highly dependent on the cumulative market transactions of the individual consumers. Although not intentionally made, each market transaction by the consumer is a “vote” for a certain product of service to exist. Odum (1982) has suggests that the “tyranny of small decisions” can be related to environmental degradation as well, were “small” independent decision insignificant to the individuals has resulted in loss of natural resources. Burnell (2002) uses tyranny of small decisions to explains how elections can be affected through small steps.

Tyranny of small steps seen through system dynamics

Here the concept from Kahn is further developed into Tyranny of Small Steps (TOST). Explained through system dynamics perspective, it is an unwanted change to a system through a series of small activities that are independent from one another. These activities are small enough to fall within a “tolerance” zone of the system and thus not noticed by surveillance within the system. The tolerance zone is a certain proportion of the system that is “grey” area where activities are tolerated. Activities are permitted one by one and once the whole tolerance zone has been consumed, the surveillance in the system closes down all further development. A revision is made and a new tolerance zone is created.

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Discussions

TOST is a phenomenon that arises when communication between two independent planning authorities is lacking or not sufficient to block development. The archetypical behaviour of the TOST appears to be important in administrative and political systems as well. It is quite frequent and seems to be able to operate whenever something is regulated by more than one resolution level and tolerance limit. Basically, this is an issue that arises by the use of differences in small scale and large scale norms. An article by the authors is currently in review that explains through different cases studies in details the properties of the TOST and how it operates across levels and scales.

References

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