Participatory Planning and GIS

According to the Council of Europe Conference of Ministers Responsible For Spatial/Regional Planning (CEMAT) “Spatial planning is the main instrument for:

- rational use of land, spatial scarceness;
- urban and rural development, including natural and cultural heritage and other aspects;
- management of natural resources and marine space;
- conflicting objectives (e.g. energy production and transmission, housing, traffic, leisure and tourism, biodiversity, protection from natural hazards etc” (CEMAT 2012)[1)].

A participatory approach to spatial planning, thus including multiple actors such as civil society in the planning process, is essential since spatial planning affects whole communities. Spatial planning processes are important in (re)shaping regions and its interconnections with other region and therefore play an important role in working towards a sustainable, balanced, and shared territorial development in the Alpine Space.

Advantages of Participatory Spatial Planning

- More democratic planning process,
- More transparent government,
- Increased sense of responsibility and ownership by local actors,
- Increased efficiency: consulting with local actors about their needs and concerns,
- Raising the citizens’ awareness and responsibility for their local community,
- Providing training and experience in participatory democracy,
- Generating policies and measures that the citizens themselves request (CEMAT 2012)[2)], (World Bank) [3)].

Challenges of Participatory Spatial Planning

- Demanding and time consuming process
- Adding multiple stakeholders to the planning process means an extra challenge to an already difficult and complex process.
- Not all stakeholders equitably represented in planning process
- Unrealistic expectations of stakeholders (World Bank)[4)] (Baud et al. 2011)[5)]

Participatory Planning and GIS

The field of spatial planning has become more and more intertwined with Geographic Information Systems (GIS). GIS tools can be used to analyse and visualise the outcomes of spatial planning decisions and are useful to model different spatial planning scenarios (AG-O 1999)[6)]. GIS can strenghten the participatory planning process through the involvement of (local) stakeholders in the use and/or production of geographical information; so called 'Participatory GIS' applications (PGIS) (Mccall and Dunn 2012) [7)]. According to Dunn (2007): “A Participatory GIS celebrates the multiplicity of geographical realities rather than the disembodied, objective and technical ‘solutions’ which have tended to characterize many conventional GIS applications” [8)]. PGIS gives legitimacy to local or 'non-official' geographical information and empowers local communities in decision making processes. The

internet has increased the opportunities and accessibility of PGIS (Web.2.0).

PGIS and Ecosystem Services

GIS in general is an important tool in the mapping and assessment of ecosystem services. GIS can be used to visualise spatial and temporal patterns and changes in ecosystem services (Nemec and Raudsepp-Hearne 2013) [9]. It can model the provision of ecosystem services as a result of land use changes, natural resource management changes, or climate changes and thus is an important tool in decision-making process in general and spatial planning processes in particular. Participatory approaches to the mapping and assessment of ecosystem services have been undertaken, especially with regard to the identification of ecosystem serves. Cultural ecosystem services are the easiest to be identified with PGIS and regulatory and provisioning ecosystem services have proved more challenging (Brown et al. 2012)[10].

AlpES Project

In the AlpES project stakeholders have an important role in shaping the project activities and results. In stakeholder involvement rounds, stakeholders are asked for their feedback on intermediate projects results, which is then used to further the project activities. The AlpES-WebGIS that is being developed in the work package "WebGIS and WIKIAlps" is, besides the input given by stakeholders on the functionalities of the WebGIS, participatory in the sense that the WebGIS in theory can be accessed by a limitless number of people (Dunn 2007) [11].

webgis, alpes project, ecosystemservices, spatial data

Additional Resources

- http://www.participatorymethods.org/method/participatory-geographical-information-systems-pgis
- http://www.alpes-webgis.eu

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