

## GREEN INFRASTRUCTURE AS A PART OF SUSTAINABLE COMMUNITY

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Rural social infrastructure allows the formation of sustainable communities through the continued development of three-dimensional and inclusive community activities: allocation of resources, strengthening competencies and confidence of the people and community groups and enabling them to take effective action and leadership roles. **Green infrastructure** can be seen as the innovation and complementary element of social infrastructure where increasing attention is drawn to synergies between green spaces and residents as well possible resulting mutual effects.

**The objective of research** is to disclose increased understanding about the concepts and foundations for green infrastructure as a part of sustainable community that secures the maintenance of the full range of ecosystem services on which society relies. In addition, the research examine and see how green infrastructure can serve as instrument for community sustainability and bioeconomy.

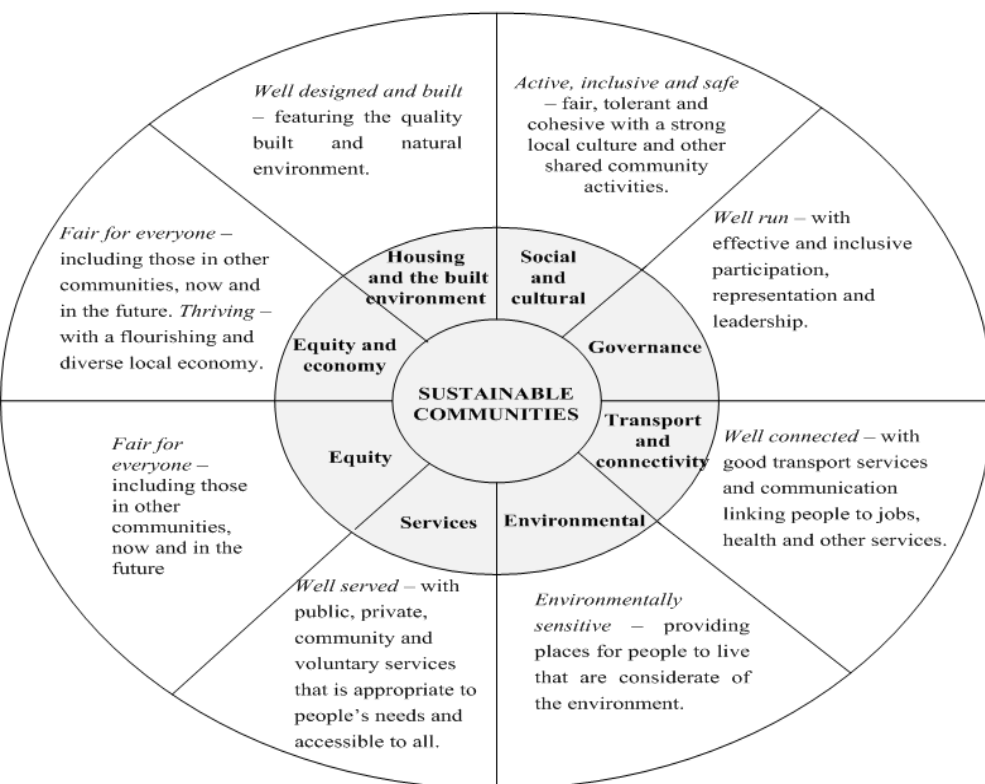


Fig. 1. The components of sustainable community

The main principles of green infrastructure planning in the sustainability context are related to **green structure** (multi-object approach, integration, connectivity, multi-functionality, and multi-scale approach) and **governance processes** (strategic approach, social inclusion and transdisciplinarity) and thus reflect the interactions between biophysical, social and governance structure and processes for the ecology in, of and for the rural area (Hansen, Pauleit, 2014).

Participatory planning did have a positive impact on the planning process, as communities felt engaged and were more willing to cooperate in future planning and developments (Cilliers, Timmermans, 2014). An integral part of a sustainable community, primarily for the sake of preserving the environment, promoting healthy lifestyles and health, not just for economic purposes is green infrastructure (GI)(Kramer, 2014).

Governments are now realising the costs involved as a result of previous neglect in providing social infrastructure. Planned networks of natural and semi-natural areas which are seen as a cost-effective alternative or complement to grey, man-made infrastructure to satisfy human needs (EC, 2013). In this way the goals of sustainable development helps to achieve the bioeconomy.

### RESULTS

**Green infrastructure can be assumed as a part of a sustainable community if these conditions are met:**

- GI elements satisfy community needs despite their social economic characteristics;
- it is preserved by local people and directs economic growth that is environmentally sustainable;
- if in various strategic documents is included GI supporting approaches and clear goals to be a green village;
- when people use green spaces properly for various activities;
- green spaces are used for promoting inclusive approach (promoting the sense of belonging);
- the idea, living style of community greening is developed from childhood and is a long lasting process through all the life;
- when GI is acknowledged as an important element of place-based approach and new funding mechanisms to engage the private sector and the general public;
- when component parts of the green infrastructure (e.g. parks, streets, squares, courtyards, pine forests, forests, walkways, nature monuments, playgrounds, architectural structures etc.) are considered as significant in the spatial planning / positioning of the whole infrastructure;
- community green areas are the result of different individual or collective actions located on private, common or public area;
- transition towards a green infrastructure is often based on win-win solutions.

### CONCLUSIONS

For the rural community to remain sustainable the goal should be a green village. However green infrastructure as innovation faces the same challenges than any innovation and requires support. So community participatory approach in planning green infrastructure can ensure protection and enhancement of the place green totality. Accordingly green infrastructure can serve as green innovation projects and instruments for community sustainability and bioeconomy. That is why it is necessary to create tools to help infrastructure organizations and communities to transform their activities and practices in a more environmentally friendly way.