

MODEL FOR REVITALIZATION OF RURAL COMMUNITIES IN SERBIA-CASE STUDY OF VILLAGE KRCDMAR

INTRODUCTION

Faced with uncertainty of the future caused by fast global changes, the actors of Strategic planning all over the world have serious roles in process of transformation and development of urban/rural space. Global political issues, diversity of the population, international migrations, economical and financial polarization, fast urban growth, rural degradation, climate changes and many other risks are just few of impacts of decision making in process of spatial planning and design. New dimension in strategic planning and implementation of strategic projects is integrative model of spatial management, based on systemic approach, that in large may neutralize global and local political impact on spatial planning. Urban and rural spaces are very complex and dynamic systems, and they are integrative part of larger spatial systems (regional, national, international).

Almost every strategic project is based on future vision of the space, that it's not always realistic and possible solution. Future vision is strongly connected with present condition and characteristics of urban/rural environment such as real capacity of the space, dynamic of the space, tip of space-users, etc. Also, realistic vision means that every strategic project has to assure sustainability and quality of space. Sustainability doesn't necessarily mean 'slow progress', but ultimately means 'optimization' and 'good quality'.

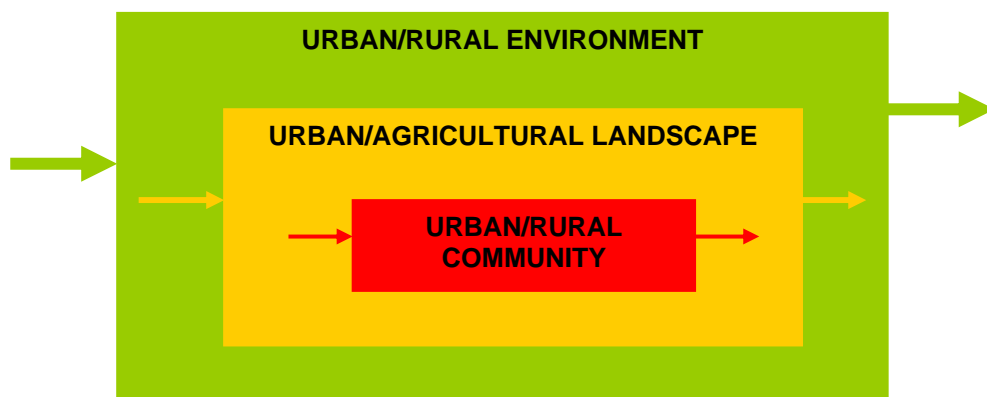


Figure 1. Urban/Rural Environmental System

All components of the urban/rural system, together with Principle for sustainable development and high quality design as the main criteria for the planning and design, as well as tools for monitoring, control and implementation of strategic project, consist Integrative model for sustainable strategic urban/ rural spatial planning.

To achieve the goals through the process of implementation of successful strategic project, very important part in strategic planning is to define urban/rural space as a system. Urban and rural system defined by it's structure (population, infrastructure, building capacity, green spaces etc.) and processes (living, transportation, working, recreation, energy flow, etc.), as well as inputs (energy, money, policy, etc.) and outputs (changes, services, goods, waste, gas emission, etc.) is a 'full colour picture of the space'. Once picture is taken, we can clearly define what we would like to change.

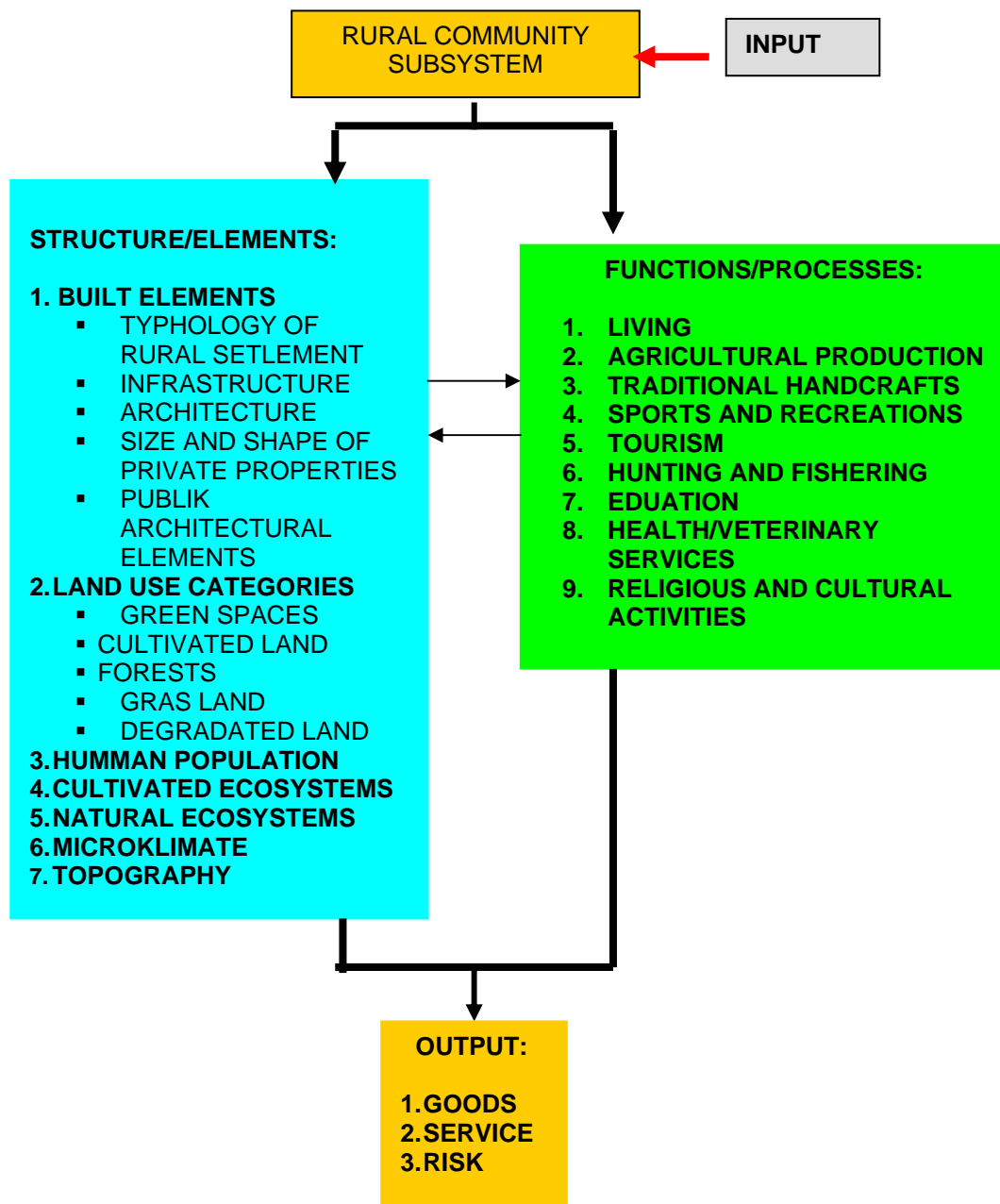


Figure 2. Structure of Rural Community Subsystem

Sample of Strategic project based on principles for sustainable development and quality of the space is Integrative model for revitalization of rural heritages and agricultural

landscapes in Serbia. The reason for the research project that held in village Krcmar was the fact of significant process of degradatio rural environment as well as disappearance of traditional village in Serbia, that cause serious social, economical and ecological problems. Village Krcmar is located in a distance of approximately 100km from Metropolitan area of Belgrade and just 10km from tourist destination Divciabre on Mountain Maljen.

First step in modeling process was on-site inventory and analyzes in order to identify significant signe of degradation and disturbans among traditional rural environment. On-site research process was based on developin questionnaire that consist three important aspect of sustaible living: sociol-cultural, economical and ecological aspect. The questionnaire was

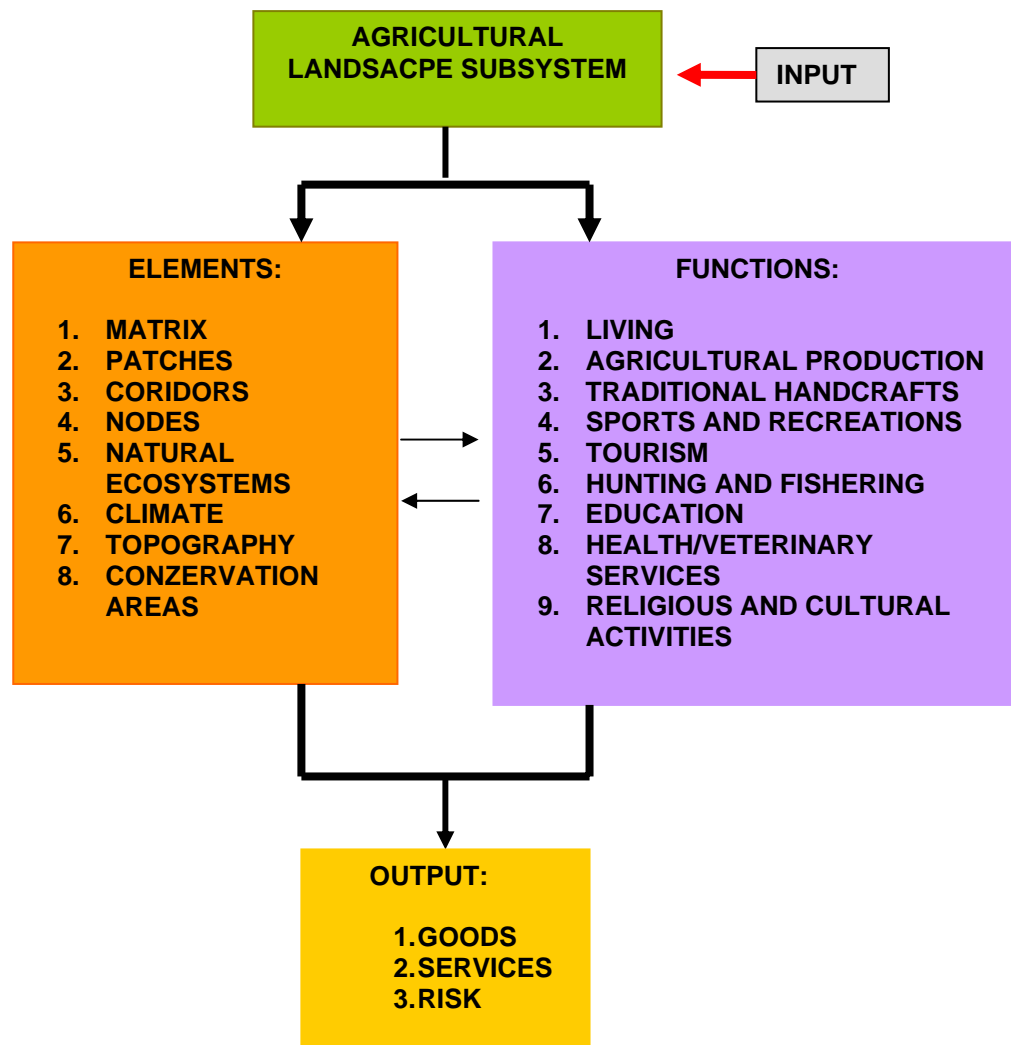


Figure 3. Structure of Agricultural Landscape Subsystem

applied on the random sample of the local population. The resultes show three major group of general critical issues indentified in the village:

Economical problems:

1. Life standard of the local population is below sustainability level.
2. Crop production is not the optimal for the local condition.
3. The cattle fond is reduced -the number of sheep to a household varied from 50 to 300 in the last decade of previous century, comparing to present rank of 6-7 sheeps per household.
4. The average stachhold income is on the lowest level in Serbia comparing to national average gross incom.
5. Lack of appropriate social and health security
6. Participants invold in primary production are from the age group 60 and over
7. Lack of local market for agricultural product palcement
8. Minimal interest for investment and finantial support of regional and municipal authorities

Socio-cultural problems:

1. Educational structure of the local population is at the lowest level - The first school in Krcmar has founded in 1808. The Krcmar School had 27 pupils in 1880, 38 pupils in 1890 and only 23 pupils in 1995. According to questioners analyses 68.4% of the local population does not have compulsory eight-year education. The 15.8% of the population are illiterate, 25% attended 4 years' school and 27.6% attended 8 years' school.
2. Aging of the local population - village Krcmar dates back to the Roman times. In the Medieval time, the village was fortress known as Bela stena (The White Rock).

Today, the Krcmar ranks among the municipal with a negative population growth rate (-6 per 1000). The analysis of local population shows ageing trend and almost 50% of the households won't exist in the next 15-30 years.
3. Disappearance of religious and traditional life - community harvesting, traditional celebrations known 'poselo' and 'prelo', as well as religious celebrations known as 'slava'.
4. Architectural identity of the village has been destroyed - traditional type of house known as 'osocanka', 'vajati' and old mill known as 'potocara'. The spontaneously built houses or illegal buildings they don't fit into autochthonous environment by their shape and functions have replaced them.
5. The traditional handicraft and traditional sheep-raising have disappeared, along with older family members. They quoted as examples such old craftsmen as cabinet makers, cooper, blacksmiths, carpenters, etc

6. Weak religious orientation. The church in Krcmar dates back to 1736, and at the beginning of the last century, Krcmar was the rural centre for four other villages. Nowadays, the Krcmar church is without a permanent priest.

Environmental problems:

1. Growing non-optimal agricultural crops caused loss of diversity of agricultural landscape.
2. Deforestation and erosion processes are present in the rural environment, caused by extensive lumber exploitation. Farmers own about 70 percent of the area under forest and only 30 percent is owned by the municipality, which makes it difficult to keep the forest land under control.
3. Improprate use of pesticide and herbicide, as well as mineral fertilizer that in combination with intensive runoff and erosion process, cause serious damages and pollutions of local streams and rivers.
4. Low quality of pastures and meadows. They have been deteriorated and overgrown, because of decrises of cattle fund and illegal building development.
5. The water sources (five rivers and ten streams and springs) are almost without any flora and fauna, caused by process of eutrofication.
6. Bio-diversity of rural environment of village Krcmar shows warning signs of disappearance many plant and animal species such as: unique autochthonous population of pine (*Pinus silvestris*), vulture (*Gyps fulvus*), partridge, grouse and black grouse, roe deer, trout (*Salmo trutta linnaeus 1758*).

After on-site data collection and analyses, second step was to apply systemic approach for case study of village Krcmar by defining rural environmental system that includes rural community subsystem and agricultural landscape subsystem. Next step was to categorize already identified problems and significant negative changes in structure and function of the rural environmental system, caused by various factors such as anthropogenic factors, political and economical issues in Serbia, global regional changes, etc.

Once we have carefully structured rural environment system, it was necessary to apply indicator of sustainability to identify level of sustainability within the system as well as parameters of the quality of the rural environment. All elements defined within rural environmental system, such as: structure, processes, inputs, outputs, sustainability indicator network of and parameters of the quality, is just the frame for implementation specific strategic actions in order to revitalize traditional values of rural environment.

Future step is to set the program of action through the Model of revitalization, and implementation various strategic projects such as heritage and cultural protection, integration green building design into traditional architectural matrix, program for revitalization and conservation of pastures and forests, program for land protection and erosion control, ecotourism, etc.

In case of rural environment of village Krcmar, the strategic approach will be able to go in direction of:

- Protection of traditional agriculture and biodiversity
- Protection of water sources
- Erosion and pest control
- Revitalization of meadows and pastures as well as cattle funds
- Protection of existing forest and implementation program for agro-forest management
- Protection and revitalization of archeological sites such as: Bela stena, Old church St. Nikola, dated from 1736, old school founded in 1808.
- Protection and renewal traditional handcrafts and traditional life.
- Develop potentials for eco-tourism
- Develop program for organic agricultural production.
- Develop potentials for spots and recreations.

Along with the rural environmental system, very important part of Integral model is development of management system as well as control system, based on specific requirements provided by sets of standards and law, related to quality and sustainability insurance. (Figure 4).

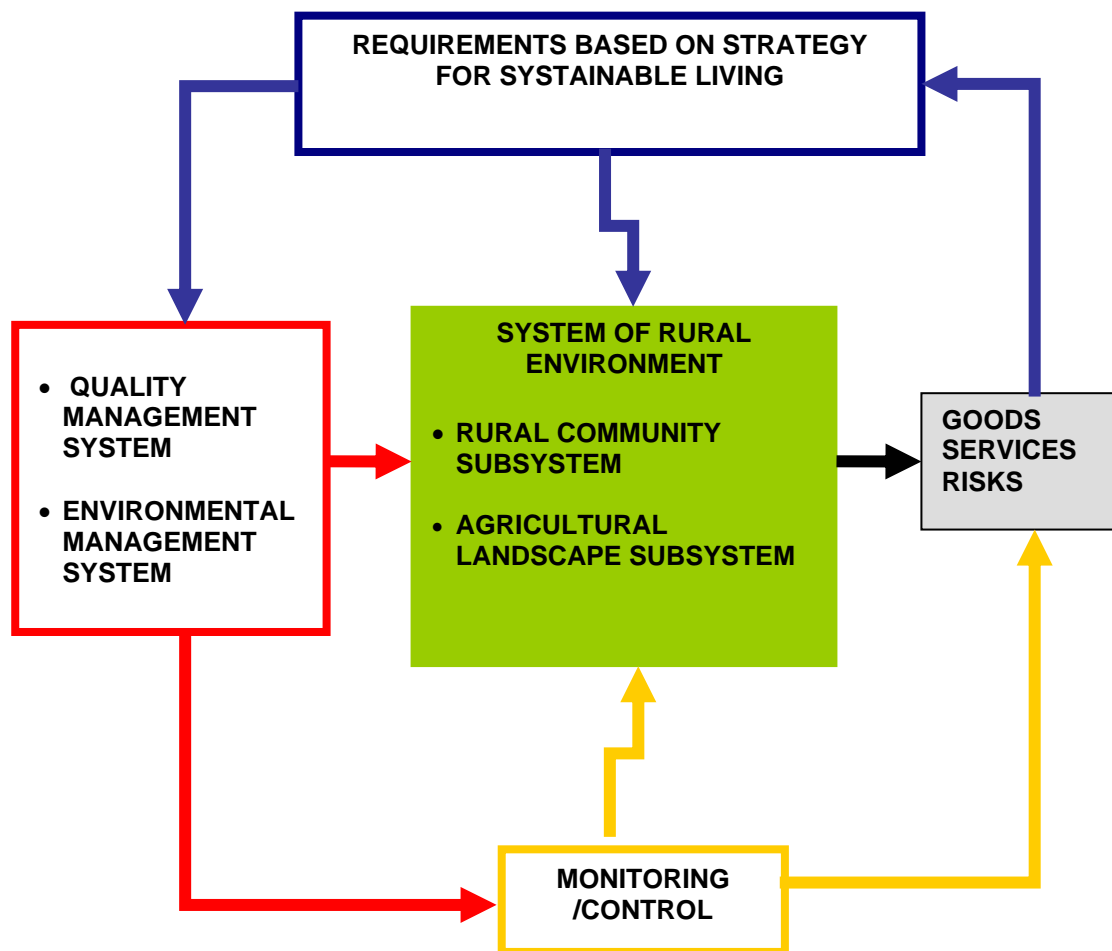


Figure 4. Integrative model for revitalization rural environment

CONCLUSION

Based on real case of mountain village Krcmar, this Model is sample of integration the past, present and the future, sustainable development, quality of the space, systemic approach and modeling for the strategic planning of the space. So far, to develop effective, optimal and sustainable model for revitalization of rural environment, it is important to apply systemic approach on real case study and develop tools for management and control of the system.

REFERENCES

1. Bryden J.: *Rural development indicators and diversity in the European Union*, Scotland UK, 2002.
2. Canadian Environmental Assessment Agency: *Sustainable development strategy*, Ministry of Environment, Ottawa, 2003.
3. Council for Rural Area: *Statement on Agenda 2000 and rural areas*, Countryside Council for Wales, Dutch Council for the Rural Areas, 2000.
4. Cuyahoga Valley National Park: *Rural landscape management-environmental impact statement*, 2001.
5. Hart J. F.: *The rural landscape*, The Johns Hopkins University Press, 1998.
6. IUCN, UNEP, WWF: *Caring for the Earth – Strategy for Sustainable Living*, Switzerland, 1991.
7. Mitrovic S.: *Disappearance of traditional villages in Serbia and destruction of agricultural landscape*, ISOCaRP, Israel, 1996. .
8. Mitrovic, S.: *TQM as an answer to the implementation of strategy for sustainable living and risk minimization*, ISOCaRP, Japan, 1997.
9. *Popis stanovništva 31. Decembar 1890.*, Valjevski okrug, Knjiga I, Statistika Kraljevine Srbije, 1890.
10. Randal A.: *Rural landscape planning*, CRM University of Massachusetts, 2000.
11. Ransom B.: *Planning for development in rural areas: An assessment of strategic planning*, Clemson University, S. Carolina, USA, 2004.
12. Thirsk J.: *The English Rural Landscape*, Oxford University Press, USA, 2000.
13. USDA Rural Development, Office of Community Development: *A guide for strategical planning for rural communities*, Washington D.C., 2002.