PLANNING FOR SUSTAINABILITY IN SLOVENIAN TOWNS

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ABSTRACT

During the last decades Slovenia has gone through extensive restructuring and adaptation to the democratic system and the market economy. Political and economical transformations demand a changed attitude to further urbanization and spatial planning policy.

The extensive development of housing construction in Slovenia from sixties to nineties resulted in two directions. On one hand there was the mass construction of large apartment block complexes in the suburbs of cities. Many high-rise buildings were too densely built-up, some of them of poor quality. As an opposite to collective construction, scattered settlements with single-family houses have appeared in the wider city areas. The great expansiveness of suburban sprawl is one of the main problems of the suburbanization of numerous Slovene cities. Such type of housing means the wasteful use of land and has frequently insufficient communal infrastructure. These districts are often mono-functional, monotonous and generate a large volume of transport, especially by car. They need urban restructuring and renewal.

Today's urban structure is shaped by economic and social forces, but more than ever by the new communication and information technology, by the transportation systems we use and of course by our changeable lifestyle. In our study projects the criteria for the new sustainable communities have been...
developed with consideration of socio-economic, environmental and cultural issues. After the consideration of the variety criteria in the evaluation of potential urban models for renewal of suburbanized areas we chose the model of decentralized concentration of settlement. We will present such model for two regions: the central Slovenian region of Ljubljana (our capital) and for urban region of Koper, our “gateway city” situated at the Adriatic coast. The principal aim was “sustainable” redesign of urban development in connection with the public transport system planned for these two regions.

Keywords: Decentralized concentration strategy, Urban growth, Sustainable land-use, Urban sprawl.

Introduction

During the last decades Slovenia has gone through extensive restructuring and adaptation to the democratic system and the market economy. Political and economical transformations and evident trends towards globalization, evolution in information technology and telecommunications also demand a changed attitude to further urbanization and the new housing construction.

International guidelines concerned with housing and the quality of living mainly stress two issues: appropriate housing for all and sustainable development of settlements (Agenda 21, Agenda Habitat, and New Charter of Athens). Sustainable development comprises economic, social and environmental aspects, including the preservation of historical, cultural, and natural heritage. The holistic approach is of particular importance for the planning of settlements, since activities involved in the process of settling cause major changes and impacts on the environment (land use, natural resources, environment pollution, waste disposal, traffic, etc.).

The National Housing Program of Slovenia contains the fundamental principles on which the housing policy in Slovenia based. Its primary objective is to ensure gradually (until 2009) the construction of 10,000 housing units per year, either by new housing construction or by the renewal of the existing housing fund; one half in private arrangements and one half in organized building. For this purpose, it will be necessary to prepare a certain number of suitable locations in towns, suburban areas and other settlements. It is therefore urgent to consider thoroughly where, in what form and to what extent the newly built housing communities could be located.

The principal issues of the presented projects for two Slovenian cities (Ljubljana [2] and Koper [3]) are sustainable urban development of cities and sustainable housing planning. They were prepared at the Urban Planning Institute of the Republic of Slovenia. Their results were also considered in the
proposals for the new municipal plans for Ljubljana (y. 2002) and Koper (y. 2006).

The Settlements Development in Slovenia

In the 1960s and 1970s, we witnessed accelerated urbanization when the percentage of the urban population grew gradually. Migrations from the countryside to towns were substantial. After 1981, the growth of the urban population stagnated to give place to the urbanization of extra urban areas. Settling flows began run in the opposite direction - from towns to town edges and suburban villages. Already in the beginning of the 1990s, a third of the Slovene population lived in suburban areas. For these areas, dispersed growth was a major characteristic. We can legitimately speak of a spatial reorganization of the population.

The main feature of the Slovenian settlement structure today is the large number of relatively small settlements (6000). Only three towns have more than 50.000 inhabitants: Ljubljana with 270.000 inhabitants, followed by Maribor and Celje. Majority of the population in Slovenia is settled in the surroundings of the 1000 larger settlements in which approximately 2/5 of all workplaces is located. The lifestyle is typically urban, and the predominant type of housing is a detached single-family house. About 50% of the migrants from both urban and rural areas live there, which is the main reason their socio-economic structure has changed completely. More than half of the suburban working population commutes daily to the main employment centers. Commuters increase the motor vehicle traffic, especially by using cars.

The current trend in Slovenia is, like in the most European countries, an increase in the number of private cars per person. That has the direct impact on the increase of congestion, the decrease in public transport efficiency, new expressway requirements and environmental degradation. Better mobility (by cars) has also important effects on extensive low-density urban development or »urban sprawl«, which again increase the automobile dependence and the wasteful use of land. Such monotonous, often mono-functional districts need urban restructuring and renewal and also better public transport connections (rapid, easily accessible, comfortable).

From the point of view of the sustainable development of cities, it is important to establish on the wider city or regional level economic, social and ecological balance. Towards the end of the 20th century the way of life and work has changed essentially. The differences between the city and the countryside with regard to lifestyle and access to information have been diminished, not only due to traffic connections but also, because of new information and
communication technologies. The operational area of work is not limited only to a compact industrial production.

In the last decades, directives concerning the planning of urban development in European cities emphasize the comprehensive approach that demands dealing with cities in the wider, regional sense. The proposed model of regional city includes two strategies:

- Development of the central built-up urban area and its historical core
  Central urban places demand renewal, revitalisation and transformation of urban surfaces, especially to improve the urban structure.
- In suburbanised and rural areas decentralised in density, with smaller concentration centres and good network connection between them. An important principle of the decentralised concentration model is to connect regional structures of urban growth to public transport routes and their stations. The principle enables regeneration of these areas, which need new economic investments, with restructuring and new urban functions.

**The Comprehensive Approach in Ljubljana Urban Region: Decentralized Settlement Model with Densely Built-Up Centers and Sub-Centers**

Ljubljana is the capital city of the Republic of Slovenia and its political, cultural and economic centre (270,000 inhabitants within the municipality, 500,000 in the region). The city experienced an extremely rapid growth in the period between 1950's and 1980's, mostly by the construction of large housing estates, built at the edges of the city. In last decades also extensive areas of single-family detached houses have grown around the central city.

Some of the most important problems of the central Slovenian region are:
- Uncontrolled expansion of suburban low-density buildings.
- The increase in demand for new housing units and bigger areas for housing construction.
- Transport problems, public transport decline and car dependency.

A star-like shape is typical of the regional development of Ljubljana: almost densely built-up city area stretches up to the circumferential by-pass. From the by-pass outwards, the city has been expanding in the shape of five branches. Along those directions, dispersed housing of one-family houses prevails, frequently as dormitories that need the concentration of functions and upgrading in the sense of creating new job opportunities.
Fig. 1: The model of decentralized concentration in Ljubljana functional region. Author: Mojca Šašek Divjak, Ph.D., Urban Planning Institute RS, 2001

The corridors correspond to a shank-like way of settling in the shape of larger or smaller settlements with dispersed single-family housing in between. Such dormitory neighborhoods demand concentration and enhancing of services and workplaces. Dispersed settlements result in uneconomical use of space and in an excessive commuting by private cars that cause environmental pollution and traffic congestion. Several studies were made to find a "best suited network for public transport" for the long term and to identify a first
priority investment. Better prospects of the implementation of railway improvement exist in the branch lines leading to the north (to Kamnik) and to the south (to Grosuplje). That is the reason why these two branches and the possibilities of concentrating settling in the nearer areas of the railway stations have been studied in detail.

The Model of Decentralised Concentration of Settling for the Municipality of Koper

The Municipality of Koper is situated in the south-western part of Slovenia, at the northern edge of the Adriatic Sea, bordering on Italy in the North and on Croatia in the South. It represents the part of the coastal region of the Slovene Istria which includes also the municipalities of Izola and Piran and has more than 75,000 inhabitants (365 sq. km). The territory of the Municipality of Koper measures 27,097 hectares and has a population of 45,000 inhabitants.

The town of Koper is the third most important regional centre of Slovenia and is one of the most important Northern Adriatic ports. It has a favourable strategic position for the communications with the rest of Slovenia and also with other countries of Central Europe. The city proper (i.e. urban settlement) has 25,000 inhabitants.

Rapid economic growth in the post-war period based upon its maritime orientation and extensive industrialization. Koper has quickly developed into one of the most important Northern Adriatic ports and economic centers, where transport, trade, financial, and business activities prevail. The city is also becoming an important educational centre with the establishment of the University of Primorska.

We have compared three scenarios for a possible housing development on the basis of the existing conditions, analyzed problems, and envisaged changes:

• Spontaneous development is based upon liberal principles of building, it maintains the achieved relationships, and furthers future uncontrolled development.
• Rapidly accelerated growth of population and economic activities deepens contrasts and differences. Settling and production are concentrated in the coastal area and in easily accessible areas that can provide rapid development.
• Decentralised concentration of settlement, development of the whole municipality

All three development areas grow harmoniously with regard to spatial conditions. Housing demands on coastal areas should be redirected to other
areas, namely to the nearby hinterland. A network of local centers with corresponding services and functions should be built linked to the routes of local transport (bus).

The third scenario has been assessed as the most appropriate for a balanced settlement growth.

The Model of Decentralized Concentration of Settling

The model includes 3 different areas:

The coastal area
- The growth of the city of Koper and its historic centre (renewal of the existing urban structure, transformation of degraded urban areas, revitalisation of the old city core, refurbishment of the University of Primorska premises)
- Future development of the port facilities including the new third wharf
- Renewal and programme completion in larger housing neighbourhoods

The coastal hinterland
- Decentralised concentration in the suburban areas and in the nearby settlements on hill slopes
- Future urbanisation linked to the development of the public transport in order to reduce private car transport and environmental pollution
- Changes in lifestyle and in work will bring about closer links between the workplace and living environment (cleaner service and small business activities)
- Retail shops, catering, services represent a focus of the settlements situated alongside the bus routes

Rural area
- A major part of the rural area forms part of a safeguarded region named “Natura 2000”. Nevertheless, it is necessary to improve the living and working conditions there and support social and economic development, primarily road building and other infrastructure. Recommended activities are: agro tourism, eco-farming (viticulture, olive and vegetable growing)

The central part of settling is the city of Koper as the administrative, economic, and university centre. Significant development strings run from the centre of Koper to the hinterland and link together suburban and rural settlements by main traffic infrastructure (car and bus).
Figure 2: Three development areas in the Municipality of Koper: the coastal area (blue) the coastal hinterland (red) and rural area (green). Author: Dr. Mojca Sasek Divjak, UIRS, 2005

The Case Study of Larger Koper and Suburban Settlements

Figure 3: The model of decentralised concentration for Koper and suburban settlements. Author: Dr. Mojca Sasek Divjak, UIRS, 2006
The proposal (development axis with potential zones of concentration) includes:

The central city of Koper:
- development of the city and its historic core (renewal of the existing urban structure, revitalisation of the historic core, refurbishment of the University of Primorska premises)
- a larger city park, sports and recreation grounds between Koper and Semedela as a »caesura« between the old and the new parts of the city,
- the port of Koper (Luka Koper): its enlargement is planned including the third wharf, necessary new areas should be located in the hinterland
- as a new motorway is planned to run through a tunnel, new tourist, sports, and recreation programmes will be situated in the coastal belt between Koper and Izola. It will become a multipurpose surface (walking, cycling, roller skating, local bus route etc.).

Larger Koper with proposed development concentration including double strategies:
- fillings, additional buildings, renewals, refurbishments and concentration within the framework of the existing urban surfaces (a priority task, a short-term assignment)
- acquisition of new areas (long-term plans with regard to additional needs)

Conclusions

The construction of decentralized concentration centers in the suburbanized areas of Slovene cities represents a sustainable way of solving problems that have emerged with dispersed housing. Regional structures of urban growth should be linked to the routes of public transport. We should abandon the model of mono-structural urbanization which is now considered as being socially, economically, and environmentally inappropriate. We should adopt mixed land use and a variegated social pattern of settling. Such changes in land use would discharge major centers and would bring about better and healthier living conditions.

The implementation of our proposed models for Ljubljana and Koper municipal plans could contribute to the following improvements in the urban environment:
- Condensation of settling and better use of land;
- Better urban standard, upgrading of functions;
- New job opportunities;
- Better communal and other infrastructures;
• Promotion of sustainable modes of transportation higher concentration of population - public transport).

Giving new contents to suburban areas is intended as the impulse for revitalization and overall functional transition of the monotonous and low-density residential suburban areas. Three main principles prevail in the concept: the regional structures of urban development must be linked with the development of the public transport, zoning should be replaced by the mixed use of land, and the policy of the urban design should be oriented towards public open places, pedestrian accessibility and human dimensions.

References


