The role of landscape ecological aspect of spatial planning in Poznań

Maciej Chorążewicz
Poznań Town Planning Office, ul. Prusa 3, 60-819 Poznań, Poland
e-mail: zr@poznan.mpu.pl

Abstract: The hydrographical system is the frame of green areas system in Poznań. The five green belts with the narrow one beginning in the centre and wider ones at the outskirts were marked out. Currently one of the main goals of spatial planning in Poznań is to protect that system. The paper analyses the green area system and indicates the main problems of shaping the network of green areas in spatial planning process in Poznań. That green areas are approved in most of the planning documents since 1930s also in the Study of conditions and directions of spatial development of Poznań from 2008. Local spatial plans are being prepared for protection of green areas. The main problems such as investment pressure for new development, collisions with planned infrastructure and time-consuming formal procedure of preparing local spatial plans mustn’t change the decisions of preserving the integrity and cohesion of the green area system. All non built-up areas, being a part of the green areas system in Poznań should be protected under the local law.

Key words: Poznań, green areas, spatial planning, protection of non built-up areas

Introduction

Poznań is the fifth biggest city in Poland – its surface area is over 261 km² and it is inhabited by 560 thousand people. The historical development of Poznań and the current urban structure are determined by its geographical location. The most characteristic land form is longitudinally oriented valley of the Warta river and five other smaller valleys. The hydrographical system is the frame of Poznań’s green areas system. Despite the rapid urbanization processes in the city, the historical system of green areas survived. Nowadays one of the main goals of spatial planning in Poznań is to protect that system.

On the local level, the planning process is completed according to the study of conditions and directions of spatial development of the city, local spatial plans and administrative decisions – building permits. The “study of conditions and directions of spatial development” is the main document which lists general guidelines. All local spatial plans that formulate more precise guidelines for development must conform to the study. Building permits are issued in agreement with the local spatial plan, and if there is no such policy, the permit is issued on the basis of an administrative decision (according to the land development conditions), which can be different than spatial policy in the study.

The aim of this paper is to analyse the green area system and indicate the main problems of shaping the network of green areas in spatial planning process in Poznań.
Influences of spatial urban development on the green area system

Poznań became a city in 1253, and since then urban spatial development began to move westwards, along the left bank of the Warta river (Kepel 2002). Major changes in the urban structure took place at the end of the 19th century. The authorities decided to pull down the inner fortress and use the new grounds to create new representative avenues, buildings and parks according to Joseph Stübben’s plan. The plan was partly implemented and it is clearly seen until today – many parks and greeneries in the city centre are the result of Stübben’s plan (Topolski 1988).

Further significant spatial changes in the development of Poznań took place after 1918 when the Town Planning Office, under the supervision of professor W. Czarnecki, began to work on the construction of the first master plan for the green areas system in Poznań. The main aim of the plan was to protect existing green areas and implement new elements of greenery into the urban structure. The five green belts with the narrow one beginning in the centre and wider ones at the outskirts were marked out. The land unsuitable for construction and of great recreational attractiveness was used for it. Additionally, green belts were linked by green rings, which completed the green areas system. The green belts in Poznań were supposed to reach the open spaces and large areas of woodlands located out of the city, forming one connected system. Shaping the natural environment in Poznań in a holistic way improved the accessibility to green areas for the inhabitants of Poznań.

The environmental frame designed in the 1930s was later implemented in most of the planning documents in Poznań. However, the reduction of green areas and fragmentation of the system took place. Urban planners came back fully to the concept of green areas in a general plan approved in 1994. Then, the green area system was expanded by the new areas in the north, south-west, east and south-east parts of Poznań. This system was also approved in the study of the condition and directions of spatial development of Poznań from 1999 and also in the current study from 2008.

As part of the work on the conditions of the development, a detailed urban inventory was conducted. According to it, Poznań is covered by green areas in 46% – forests, waters, meadows, cultivated and uncultivated areas cover 121 km². During the work on the study, a model of the city’s green area system was designed (fig. 1) according to the physiographical analysis of the environmental conditions. It became the main frame and starting point for shaping the city urban structure.

In the study it is emphasized that the inhabitants’ quality of life, landscape and the city’s attractiveness are connected to the properly shaped and preserved green areas. As the main goals of spatial directions, the study lists:

– continuous protection of the green belt system by implementing the building restrictions on the valuable open spaces and preserving the continuity of ecological corridors;
– protecting the most environmentally valuable areas from new development;
– enlarging the forest area within the city;
– preserving the existing parks and creating new ones, as well as green areas adjacent to built-up areas;
– creating of new allotment gardens.

The study basically divides the land into four categories: non built-up areas, areas of special conditions for buildings and development, built-up areas and communication areas. Non built-up areas include the main elements of the green area system. Non built-up areas should, on the principle, consist of no less than 80,6 km², which is 31% of the city area. Areas of special conditions for buildings and development
include the ecologically valuable areas, such as cemeteries, allotment gardens, botanical and zoological gardens, sport and recreational areas and services. On the total, this group covers 20.5 km². Together with non built-up areas it covers 101.5 km², which is over 38% of Poznań’s surface (fig. 2).

The study allows for the spatial-functional transformation of a part of agricultural areas, giving opportunities for new development. This possibility is an answer to the suburbanization process and it curbs the urban sprawl outside the Poznań administrative borders.

Fig. 1. Green areas in Poznań (a) and the model of Poznań green area system (b)
Source: Study of conditions and directions of spatial development of Poznań, 2008.

Fig. 2. Non built-up areas (a) and together with areas of special conditions for buildings and development (b) in Poznań
Source: Study of conditions and directions of spatial development of Poznań, 2008.
Local spatial plans in Poznań

There are 116 local spatial plans in force, which cover almost 27% of the city area. Another 98 projects of local spatial plans, which will cover additional 35% of the city, are being prepared in Poznań Town Planning Office.

The plans are divided into three main groups depending on their aims: (1) plans for investments, (2) regulations and (3) protection of green areas. The most important from the perspective of landscape ecology are the plans which belong to the last group. Currently, non built-up areas within the valid local spatial plan are covered in about 33 km², which is 41% of all non built-up areas in Poznań. For the next 34 km² (42%) plans are being prepared (fig. 3).

Fig. 3. Non built-up areas according to local valid spatial plans and plans being prepared.
Source: Town’s Planning Office in Poznań.

Problems of shaping green areas in Poznań

The main problems in shaping the green areas in Poznań are:
– Investment pressure to locate new development within the areas indicated in the study of conditions and directions of spatial development, and the areas unprotected by the local spatial plan as non built-up.
– Collision of the planned communication infrastructure with the green area system. The planned communicational bypass system cross the green area system in several places (fig. 4).
– Time-consuming formal procedure of preparing local spatial plans. In consequence, the unwanted development can be localized even in contradiction to the directive in the study of conditions and directions of spatial development.
Conclusions

Spatial planning as a tool has a great influence on the shaping of the green area system in Poznań. On principal, the system should be relatively stable and long-term. In spite of this, some infrastructural investments should be allowed. To mitigate negative effects of spatial collisions it is necessary to implement appropriate technical solutions in communication investments. According to such approach it is possible to preserve the integrity and cohesion of the green area system, which is one of the basics of functionality of the environment and ensures good living conditions for the inhabitants of Poznań. The work on local spatial plans protecting the green areas proceeds systematically. In the end, all non built-up areas which are part of the green areas system should be protected by the local spatial plans.

References

Chorążewicz M.