

Current urban planning and development in Bulgaria does not take into account the existence of urban and peri-urban agriculture. The urban planning guidelines included in the Law for Territorial Development (2001) refer to zoning, densities for buildings, heights, distances and other technical parameters related to construction, roads and green open space, property issues and control. Issues related to farming and livestock breeding in the city are not treated as they are not expected to occur in urban areas. However, reality is different. In most cities in Bulgaria, urban agriculture is a common and permanent phenomenon. There is a need for innovative urban planning approaches.

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# Using Urban Agriculture for The Case Of Trojan Sustainable City Planning in Bulgaria

In the last decade, Bulgaria has gone through a process of political and economic transition. The share of agriculture within the GDP increased significantly (up to 26 % in 1999). As a response to the economic decline and the introduction of open market principles in this transition period, the importance of urban agriculture for the subsistence of many urban households has also increased substantially. Agriculture increasingly functions as a social safety net for the poorer sectors of the urban population and forms an important complement for middle income groups. Agricultural production in urban and peri-urban areas also has an important potential for urban landscape management, nature conservation, recreation and ecological education, as will be shown later on.

## FARMING IN AND AROUND TROJAN

About 80 % of the houses in Trojan have their own yards, which, in general, are used for agricultural production. However, agricultural activities are not the basic occupation of the urban gardeners, who usually have another job (small tradesmen, technicians, office clerks) or are retired. Most urban gardeners and farmers are between 50-75 years of age. About 15 % of the population of Trojan is older than 60 years, while the unemployment rate is about 17 %.

In general, the urban gardeners and farmers are less educated and have below average income.

The majority of urban agriculturalists garden for self-consumption, which on average satisfies over 50 % of the household food needs (and in this way allows for important savings). Only 15 % of the interviewed households have income generation as their main motive, selling their produce directly from the garden or farm to consumers.

The production of vegetables is very intensive. Chemical fertilisers and pesticides are hardly used, but organic fertilisers are applied (about 1 ton or more/ha). Vegetables are grown by 88 % of the interviewed households, with on average a total area of less than 100 m<sup>2</sup>. Fruits are cultivated by 75 % of the interviewed households and grapes by 13 %. Many families also raise animals, mainly poultry (63 %, with on average 18 fowl) and cattle (50 % of the farming households breed an average of 3-5 animals), but also sheep or goats (25 %), and/or pigs (38 % keep an average of two animals). Most animal feed is produced on-farm. Cultivation practices are rather basic: crop rotation is hardly practised, and animal husbandry practices are primitive and not monitored by contemporary veterinary services.

## TENDENCIES IN URBAN FARMING

Most of the farmers and gardeners interviewed do not have clear ideas regarding future develop-

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Here, the case study of the Bulgarian city Trojan is presented, and some guidelines for the integration of urban agriculture into urban policies and development planning are presented.

The SWAPUA project (Soil and Water management in Peri-urban and Urban Agriculture in CEE countries) is operating in 10 cities in five CEE countries. Its aim is to explore the presence and impacts of urban and peri-urban agriculture and to facilitate the development of local policies that accommodate, and plan for, urban agriculture as an integral part of sustainable city development.

ment. Most want to continue in the present way. Only 8% of the farmers are looking for ways to improve and/or enlarge the scale of their agricultural activities. About 5 % want to specialise more. The very low percentage of farmers willing to take out a loan indicates that the group which would invest in urban agriculture (including willingness to take entrepreneurial risks) is very small. This might be explained by the main motivation (growing food for self-consumption), or by the low profitability of market oriented farming under the present conditions.

#### PARTICIPATORY PLANNING

Based on the results of the city survey, a participatory process of policy and action planning was initiated, starting with an inventory of the stakeholders involved, in one way or another, in the use and management of this territory. Subsequently, a meeting with representatives of these stakeholders was organised, where the results of the survey were presented and their participation in a policy and action planning process was requested. The meeting resulted in an agreement to coop-

### Agricultural production has an important potential for urban landscape management

erate in the planning process initiated by the SWAPUA-project and to meet periodically. It was decided to focus the participatory process on the southern periphery of the city, which is the contact zone adjacent to the "Central Balkan" National Park. A planning team was formed consisting of the Bulgarian SWAPUA-team member, a local consultant (a professor in economics), a planning expert from the municipality and the deputy director of the Research Institute for Mountainous Animal Breeding located in Trojan.

Meetings with local farmers and gardeners were organised in the area, to discuss

the needs and problems and to generate ideas on required actions and policy measures. In general, the findings of the survey were confirmed. A problem of special interest to the farmers was the shortage of land for grazing the animals or to grow fodder. The interest of the peri-urban farmers in the provision of credit and assistance in marketing was higher than found in the survey. The planning team also consulted experts and representatives of a variety of local organisations.

On the basis of the results of these meetings and a review of the changes in land use and other tendencies in the southern periphery of Trojan, the planning team revised the outdated urban development plan for the southern zone of the city and drafted new municipal regulations for urban agriculture. The new development plan focuses on organic agriculture in

combination with development of agrotourism and landscape conservation. This draft action plan was first discussed and revised with the local farmers during follow-up meetings. The action plan was presented and discussed at the Trojan Municipal and Citizens' Forum, in which all major local groups were represented to advise on priority issues for the city. During the first meeting, the plan and regulations were presented and later published in the local newspaper. In the second meeting, the plan was discussed and it was accepted for the development of peri-urban agriculture in this zone.

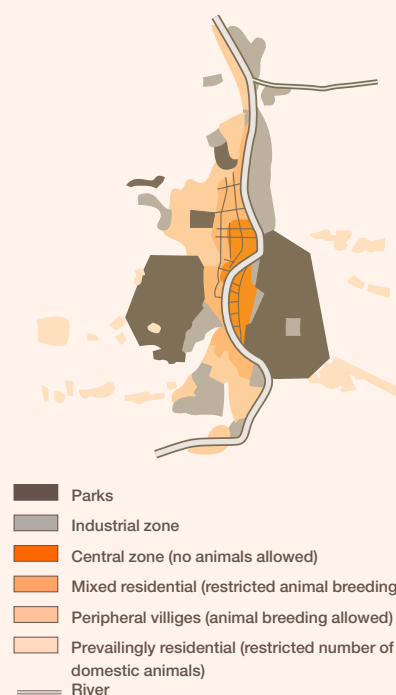
#### THE ACTION PLAN

The action plan includes a number of activities, indicating the organisation(s) responsible for implementation, the source of financing, the period of implementation and the expected results. The most important ones are summarised below:

The Municipality will play a coordinating role, to stimulate and regulate urban and peri-urban agriculture through:

- ❖ integrating urban agriculture in the general municipal development plan;
- ❖ adopting a set of specific norms and regulations regarding urban agriculture for different zones of the city;
- ❖ improving access to land for urban agriculture by selling and renting municipal land to family farms and providing land, directly or through gardening associations, for temporary agricultural use (medium-term leases), to those households registered as "being in need";
- ❖ encouraging organic production and regulation of the application of fertilisers and pesticides;
- ❖ periodically monitoring of the degree of pollution of soils and water in the urban agriculture plots, applying the municipal regulations regarding use of fertilisers and pesticides, and preventing ecological damage and public health problems;

Specific urban rules and standards for urban agriculture in Trojan



Trojan is a typical Bulgarian town - about 50 % of Bulgarian cities have very similar characteristics. The population of Trojan counts 25,260 persons. Agriculture is one of the leading economic sectors, both in the region and in the city. Around the city centre there are two belts of residential zones varying in density and characteristics. In the peri-urban zones, some villages have more traditional farming functions (see map). Trojan is implementing the project "Civil development and local self-government". Because of its geographic location, size, economic activities and scale, Trojan was selected for the implementation of the exploratory survey. Respondents came from the various farming types and from both urban and peri-urban areas.

- ❖ assisting in the identification and solution of marketing problems, amongst others by creating the infrastructure for a local farmers market and by further facilitating arrangements between local farmers and schools, hospitals, and restaurants in Trojan and the neighbouring city of Lovetch;
- ❖ improving the roads;
- ❖ facilitating the provision of credit;
- ❖ stimulating the processing of local produce (canned, frozen, pickles and other forms);
- ❖ stimulating the (regulated) use of semi-public open spaces for urban agriculture for educational purposes and consumption in schools, hospitals, kindergartens; and
- ❖ including provisions for landscape development, recreation and gardening in building plans.

The Research Institute on Mountainous Livestock Breeding and the National and Local Extension Services will be active in providing technical advice and training to urban agriculturists on organ-

## The rules are still experimental

ic farming techniques, fodder production, animal reproduction, prevention of ecological damage, performing soil and water analyses, farm planning and information on available credit lines. The *Central Balkan National Park*, in cooperation with the *State Forestry Division*, will provide permits to the peri-urban farmers for grazing of animals, harvesting of herbs, forest fruits, and mushrooms, etc. in the territory of the National Park.

The Swiss Foundation for Support of Sustainable Development of Farming in Bulgaria and the *Bulgarian Swiss Foundation FAEL* will promote organic farming methods through distribution of

## Main problems encountered by the urban gardeners and farmers in Trojan

- ❖ lack of feed and inputs (25 %);
- ❖ lack of capital (50 % - nearly 100 % replied no to taking out a loan if possible);
- ❖ lack of labour (38 %);
- ❖ lack of marketing (38 %);
- ❖ lack of transport (25 %); and
- ❖ lack of access to land or fear of eviction (50 %)

publications, farm demonstrations, technical advice and training, and will provide credit support and supervision, and will assist in the regional marketing of farming products.

The *Tourism Association Central Balkan* and the *Trojan Tourism Bureau* will support the development of agro- and eco-tourism in the region, both by assisting farmers in providing recreational services as well as by attracting tourists and organising educational tours of students and schools.

## ZONIFICATION AND MUNICIPAL REGULATIONS REGARDING URBAN AGRICULTURE

Agricultural activities and their influence on the settlements are covered by Regulation N7 of the Ministry of Health Care, which defines the mandatory requirements and standards for the protection of health and sanitation. For example, it delineates seven zones of sanitation levels, depending on the number and type of animals allowed in different types of residential areas. The Law for Territorial Management includes a specific supplement on sanitation-hygiene requirements for agriculture for various types of urban territories.

On the basis of these legal requirements and the information generated in the SWAPUA city survey on the presence and character of urban agriculture in the various districts of the town, the planning team developed *zonification* for urban agriculture in Trojan. This aims to facilitate backyard gardening and other forms

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of urban and peri-urban farming whilst preventing associated ecological and health problems. The zonification also includes a set of norms regarding agricultural land-use and guidelines for urban planning. The rules are still experimental and await endorsement by the municipal council.

## CONCLUSION

The Trojan case illustrates a number of important issues:

- ❖ Urban agriculture is widely practised in Trojan, a city that is representative of a large group of cities in Bulgaria.
- ❖ Urban agriculture plays an important role in the food security of a substantial number of households and has provided a safety net during the transition period; for a smaller group, urban agriculture is an important source of income.
- ❖ A relatively limited group of urban farmers and gardeners in Trojan is interested in further growth and development into commercial farms.
- ❖ Rather than excluding urban farmers and gardeners from city development plans (as is current practice), they must be integrated into urban planning to prevent negative impacts from unregulated urban agriculture. Optimal use can also be made of the role urban farmers and gardeners can play in the protection of nature, landscape management, provision of recreational services to urban citizens and ecological education of the youth and citizens.
- ❖ When a participatory and multi-actor approach is applied, with relatively little financial means, a good quality plan can be made and implemented, combining expertise and resources of various local actors, including the urban farmers.



Open space in Sofia