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Case Study 1

URBAN AGRICULTURE IN ST PETERSBURG
RUSSIAN FEDERATION

CONDUCTED BY THE URBAN GARDENING CLUB

April 2000

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2000 EUROPEAN HEALTH21 TARGET 11

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HEALTHIER LIVING

By the year 2015, people across society should have adopted healthier patterns of living

(Adopted by the WHO Regional Committee for Europe at its forty-eighth session, Copenhagen, September 1998)

ABSTRACT

Serious ecological problems in the urban environment are common to most big cities around the world. In Russia these problems are aggravated by industrial development and lack of government funding for ecological improvement. Key facts are male life expectancy estimated at 58 in 1997 and existing environmental hazards. In addition to poor environmental conditions, most people in cities suffer from a lack of basic food. In St Petersburg the amount of vegetables per citizen is 5 times lower than in the central districts and 2 times lower in peripheral ones. The St Petersburg Urban Gardening Club aims to make the city more ecological. Being officially registered, the Club can work with the authorities and the mass media. The Club was officially registered in 1992 as a nongovernmental organization and works towards increasing the production of vegetables, particularly for the benefit of vulnerable groups. A special feature of the club is research into roof top gardening techniques in city conditions including residential buildings, schools, hospitals and institutions.

Keywords

AGRICULTURE
FOOD PRODUCTION
URBAN HEALTH
REFUSE DISPOSAL
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Urban agriculture in St Petersburg Russian Federation Conducted by the Urban Gardening Club

Past, present and future perspectives

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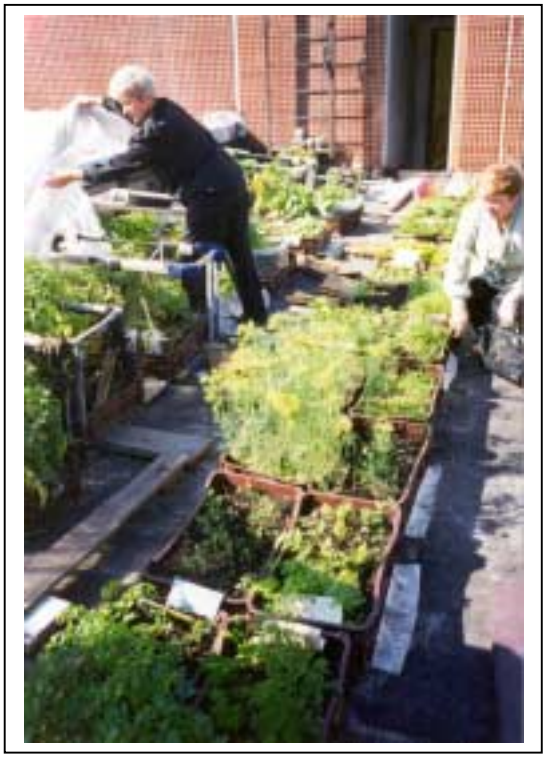
1. Background

Serious ecological problems in the urban environment are common to most big cities around the world. In Russia these problems are aggravated by disproportional industrial development (industrial production sites with ancient or disabled purification systems are situated within city borders), lack of government funding for ecological improvement, and disempowerment of people due to long suppression of their social and political activity.

As a result, the pressure created by people living in large Russian cities becomes destructive for the population. Male life expectancy was estimated to be as low as 58 in 1997. Environmental hazards are one of the key factors responsible for this decline.

The health of the population is, to a large degree, defined by conditions of the ecological, sanitary/hygienic and epidemiological situation. The harmful factors in the environment are numerous. However, the influence of these factors on health is complex and still not well researched.



The condition of the environment over the past few years is not the best. The country's serious social and economic situation has aggravated the already poor ecological conditions. Surprisingly, the closure of many industrial plants has not resulted in a significant improvement in pollution levels of the natural environment. More than 60 million Russian citizens live in cities and live in conditions with a constant excess level of harmful substances in the air. Annually more than 30 million tons of pollution from industrial enterprises and about 20 million tons from vehicles (a figure which has almost tripled over the last 3 years) are being released into the environment and the pollution level has already reached the level planned for the year 2010. This results in an average of about 400 kgs of hard particles from air pollution per inhabitant. In 171 Russian cities the concentration of air polluting substances exceeds the concern level (CL), and in 55 cities the CL is exceeded by no less than five times. More than 3 million people, including 600 000 children, live in conditions where there is a dangerous level of air pollution. Especially affected are those cities which have heavy industrial plants producing colour substances and black metallurgy, chemicals, petrochemicals and others. About 50% of the population drink water which is not of the appropriate hygienic standard.

In addition to poor environmental conditions, most people in cities suffer from a lack of basic food, and their menu is very limited. In St. Petersburg the amount of vegetables per citizen is 5 times lower than in the central districts and 2 times lower in peripheral ones.

General information on the Russian Federation

General statistics on urban and peri-urban agriculture in the Russian Federation are presented in Annex 1.

In an urban area of 405 500 km^2, 70 000 000 persons were engaged in urban agriculture activities in 1997.

Independent reports carried out in the Russian Federation, between 1926 and 1996, suggest that the urban population grew from 18% to 74%. There are 1330 towns and 124 town agglomerations, each with more than 120 000 citizens (official data from a Ministry of Building report) covering a total area of 405 500 km^2 (2,6%), and consisting of 2/3 of the industrial potential and 90% scientific potential (A. Lola, B. Menshikova, "Russia - country of unacknowledged urban systems", article, "Ecos-inform" magazine 3-96, page 20).

In 1991, for the first time after World War II, there was an absolute decrease in the urban population by 1 600 000 people - 8% ("Promishlennoye i grazhdanskoye stroitelstvo" journal, 3, 1997).

Table 1: Number of urban settlements in the different size categories

Population thresholds	**Number of settlements (1997)**
more than 1 million residents	13 cities
500 000-999 999	18 cities
100 000- 499 999	134 cities
50 000-99 999	179 towns
20 000-49 999	370 towns
10 000-19 999	264 towns
5 000-9 999	83 towns
3 000-4 999	20 towns
less than 3 000	6 towns

The historical context of Urban Agriculture (UA)

The history of urban development in the Russian Federation helps to understand the different types of urban agriculture that have developed.

There are different types of towns; the tradition of dachas/weekend houses; the tradition of houses with relatively large plots for backyard gardening; and private plots for collective farm labourers. Historically, the Russian Federation has been a state where most people lived in the rural areas. Because of economic reasons, at the end of the last century, millions of Russians moved to towns in order to seek employment.

There are three types of towns in Russia. From the 15th to the19th century, **fortress-towns** were created to provide protection against enemy raids (Belgorod, Novi Oskol, Voroneg, Usman, Kozlow, Tambov, Saransk). **Resource-towns** (Ekaterinburg, Monchegorsk, Nikel, Apatiti, Vorkuta, Novokuznetsk, Solvichegodsk, Inta, Mirnii, Neftekamsk) came about because of industrialization in areas rich in mineral resources. **Ancient Russian towns**, as sustainable habitats, meet the ecological and economic needs of their inhabitants (Novgorod, Pskov, Kursk, Bryansk, Smolensk, Staraya Russa, Vyazma).

It is necessary to distinguish between the ancient/fortress towns and the new industrial resource towns. Each type has a different development pattern: in the ancient/fortress towns there is radial growth and a large peri-urban area with small plots and houses (dachas); and in the industrial towns there are large housing blocks “down town” directly surrounded by large-scale commercial farms (former collective and

state farms). Outside the downtown area, there are more unfavourable agriculture areas (covered by swamp or bushy growth), consisting of plots 0.4-0.8 ha, which people obtained in Soviet times.

The Regional Union of Horticulturists stated that up to 2 000 000 people are dacha plot users. Urban agriculture is not just a hobby or a way to relax but a most important socio-economic factor. Around 40-50% of town dwellers supplement the family budget by growing food. Even balconies, roof tops, and basements have become places of horticultural activity.

Some enterprises and private entrepreneurs use basements to grow mushrooms and vegetables and others process and dry fruits and vegetables. Older, larger companies (works, factories, military R&D firms) continue to grow vegetables for their canteens and flowers for use in greenhouses.

At first, dachas in peri-urban areas (plots 0.08-0.12 ha, with cottages) were exclusively state property and were placed at the disposal of the Soviet Union's "high society". Initially this was supposedly for temporary use, but in reality dachas could be owned for life and inherited by the next generation. Dacha inhabitants were Communist Party functionaries and outstanding scientists, artists, actors, etc. Dachas were places for relaxation and agricultural activities near towns and within towns, and represented no more than an exotic hobby.

After the Stalin era, some land in peri-urban areas was made available as dacha plots through the "Community for cooperative building of single storey cottages" (DSK) for ordinary people. This process took place from 1959 to 1962. DSK are blocs of gardening plots (0.08-0.15 ha) with buildings for permanent use. Houses were built by special building companies on the basis of cooperative fees and these houses were regarded as the assets of the dacha-building cooperative union.

After the late 1970s almost all Soviet enterprises and organizations began to ask local authorities for permission to acquire plots for gardening, with single-storey houses on them. Usually the land that was made available were forest sites located 2-3 km from railroads or motorways and 20-100 km from cities. The plot-owners' main objective was to grow fruit, ornamental plants and vegetables for home consumption, while any surplus could be sold to neighbours and any chance purchasers.

From 1986 to 1996 the number of urban gardeners doubled and now the country has some 22 500 000 plots with an average area of 0.06 ha. In the period 1992-1995 the need to cultivate land was guided by the need to survive. In any case, the plots were located mainly in forested areas or on unused land which was very poorly drained, or with substantial slopes, or often severely eroded or threatened by water erosion.

From 1985 to 1990, enterprises helped their staff with loans to spend on their plots of land. Loans of 3000 rubles over a period of 5 years, at a token interest rate (2-3%) were offered during this period by Sberbank. The loans were guaranteed by the enterprises, but then, because of bankruptcy and lack of money, such support disappeared. In 1996 the government bank offered 15 000 000 rubles to gardeners for periods of 2 years at an interest rate of 90%.

In any event, the tax payment for 1 square meter of land has risen each year since 1991, and increases of as much as 1500 times within a four-year period are quoted. Taxes have been levied throughout the country on plot buildings. Taxes on police maintenance are in force in some regions, although gardeners have hired guards on their own account. Gardeners' organizations have to pay all taxes into budget and non-budget funds, although all gardeners' fees are taxed in advance. Often the situation arises when fees (for interior road maintenance, electricity, maintenance of wells) contain tax payments which comprise

more than half of the entire sum. Sometimes gardeners' organizations have to pay land taxes at a high rate because they are located close to a town, and they have to pay into the local fund for regional road maintenance, the local fund for educational development, and social and health care funds.

2. Urban agriculture in St. Petersburg

2.1 Geography and climate

St. Petersburg is located in the north-west region of Russia on the Neva River delta on the banks of the Gulf of Finland. Including the surrounding territories supervised by the city administration, it occupies an area of 1,439 square kilometers. The city occupies 44 islands formed by the Neva River. St. Petersburg is the largest city in the world to be located on such a northern latitude.

The climate is approximately the same as Anchorage, Alaska, USA. There is an average of only about 60 sunny days a year. The vegetation period is about 4 months (mid-May to mid-September). It is possible to grow leafy greens, potatoes, tomatoes, etc; however corn, buckwheat and water melons cannot be grown. The growing season can be extended for about one month using plastic and greenhouses.

2.2 Population of St. Petersburg

As of January 1 1999, the population was 4.73 million inhabitants (approximately 3% of the total population of Russia). The birth rate is 6.6 births per 1,000 inhabitants; the death rate 13.7 per 1,000 inhabitants. There are 2.8 million inhabitants of working age and approximately 1.3 million registered pensioners. According to official data, there was 1.6% unemployment on 1 January 1999 with 40,600 officially registered unemployed, compared with 89,900 in 1998.

2.3 St. Petersburg Urban Gardening Club (UGC)

The Urban Garden Club has developed from Agricultural Initiatives of the Center for Citizen Initiatives USA-Russia (CCI), a non-profit foundation.

A group of enthusiasts decided to establish the St. Petersburg Urban Gardening Club to make the city more natural and ecological. In addition, being officially registered meant that the Club could work with the authorities and the mass media. The Club was officially registered in 1992 as an NGO, a non-profit public organization.