For households that moved, the main problems come a few years after they sold their original flat. When the money from the sale runs out, they again face the same financial problems and at the same time are living in worse locations with a much lower market price for their property. What they need is old building in a lively district, which some among them can help make livelier.

New residential buildings are not an unadulterated good for the city since they bring many disadvantages. The value placed on various advantages, or the penalties accruing from certain disadvantages, are given different weights by different people. Some people prefer more space for the money or equal space for less money to apartments in new houses offered by developers. Some

people would rather pay for improvements in their living conditions by selecting which improvements are most important to them, instead of being forced to buy a variety of improvements which all cost a lot of money.

High price housing developments cause social segregation and gentrification when the public sector does not intervene in housing issues. It is regrettable that in such a situation there is no governmental policy on housing and lower income groups are not provided financial mechanisms to be able to improve housing conditions. The housing sector should be a higher political priority. A national housing policy needs to be elaborated and the concept of social housing should be introduced.

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# Public Green Space in Armenian Cities: A Legal Analysis

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## **Abstract**

This article examines the state of urban green spaces in Armenia. Overall, the amount of land devoted to green space is shrinking as a result of new construction. Armenia's existing legislation dealing with this issue is inadequate and should be updated to encourage more inventories of existing areas, monitoring of development, and participation, particularly by local government officials and the public.

## Overview

Armenia's population is distributed unevenly across its 49 cities, as Table 1 on p. 8–10 shows. At one extreme is the small town of Dastakert with 300 people; at the other is the capital Yerevan, with 1.11 million people. The level of economic activity also varies significantly across cities. Some urban areas have a high level of economic activity, which requires new construction that inevitably fills up increasingly scarce urban land plots.

The price of urban land is rising from year to year in Armenia, making the land currently devoted to green space particularly valuable. Since this green space is considered communal property, the municipalities control it and they are willing to issue construction licenses to build on this space. Typically, the municipalities permit construction of temporary buildings in these areas, which in practice become permanent structures. Ultimately, of course, it does not matter, whether the building is temporary or permanent—the green space is

destroyed once the construction takes place. The most important losses of green space are taking place in the central parts of cities as a result of in-fill construction.

The existing legal framework in Armenia regulating procedures and methodologies for maintaining green space does not meet the minimal requirements for preserving these sites. Similarly, the implementation of measures to compensate for damage to green space is inadequate.

Since the quantity of green space is constantly shrinking in Armenian cities, the situation is critical. In many cities (Yerevan, Gjumri, Vanadzor, Hrazdan, Sevan, etc.), park lands and squares are being converted to other uses. As a result, the state of the environment and the quality of life for townspeople is deteriorating.

### Statistical Analysis

To develop a systematic picture of the situation, we examined the existing statistical data on Armenia's green

spaces and the regulatory framework protecting these areas. Our research shows that the current situation is a result of the inadequacy of the state's legal framework, the lack of personnel to address the problems, and poor operational maintenance of the green space. Figures 1–3 and Tables 2–4 on p. 10–12 provide statistical data on urban land, green zones and public use green zones.

Using the data of the National Statistical Service of Armenia on the area of city green zones within the administrative borders of cities, and also the area of built-up territories, it is possible to calculate the share of planted area as a percent of the total area of land within cities. These data are presented in Figure 4 and Table 5 on p. 13.

According to the calculations in Table 5, the norm of green space within cities is lower than 40% in all regions except in Aragatsotn and Vayotc Dzor. This violates governmental decree #1318-N "On the statement of the law and order for technical requirements for the sizes of green zones in urban areas", issued October 30, 2008, which requires that green zones should make up 40% of all city territory (point 8). In Aragatsotn (for 2005–2007) the areas of green plantings were verified by the National Statistical Service, providing a set of reliable figures.

We also calculated the share of public green zones from the total area of the land within city administrative borders (Figure 5 and Table 6 on p. 14).

As it is evident from Table 6, the situation with the public green zones is deteriorating in the capital city of Yerevan. The share of public green zones within the total area of the city dropped from 19.1 percent in 2006 to 7.3 percent in 2009. The drop resulted mainly from inappropriate urban development practices in Yerevan.

To calculate per capita green space in square meters, distributed per urban community within the regions, we used National Statistical Service population data from 2002 to 2007. The results are listed in Figure 6 and Table 7 on p. 15.

According to the 2008 government order mentioned above, the norm for areas devoted to planted trees and shrubs per capita should be between 8 to 21  $\rm m^2/person$ . Table 7 shows that only two regions meet this norm: Aragatsotn and Vayotc Dzor.

### Legal Issues

The following legal acts are important for policy-making in this area:

- the Republic of Armenia Law "On flora",
- the Land Code of the Republic of Armenia,
- the Republic of Armenia Criminal code,
- the Republic of Armenia Law "On administrative offenses",

• and Governmental decree #1318-N "On the statement of the law and order for technical requirements for the sizes of green zones in urban areas", issued October 30, 2008.

Our analysis of these texts shows that there are a variety of terminological errors, contradictions among points in the different laws, discrepancies in the formulations, and loopholes that allow local governments to use the land at their own discretion.

To address the problem of preserving the green space within Armenia's cities, it is necessary to:

- adopt a republican law "On green spaces in cities and settlements";
- expand the powers of the regional department state inspectors of the Ministry of Nature Protection so that they can function like an ecological police;
- conduct an inventory of green spaces among the communities of the republic, to make a catalogue of each tree, bush, and lawn with data about their specific features, measurements, and conditions, including photos;
- specify the borders of green spaces, and map them;
- conduct regular monitoring of the green spaces;
- establish adequate penalties for damage caused by local authorities, citizens and legal bodies to urban green spaces, taking into account the categories of green spaces to which the damage has been done;
- conduct an economic assessment of the land areas occupied by green spaces to establish rents and land taxes for using the territories;
- involve the population by establishing community gardens, and in the maintenance and protection of green plantings in yards;
- support social movements that work to protect urban green spaces;
- provide the public easy access to information concerning the expenses required for carrying out environmental activities and community gardening programs at various levels;
- discuss with local governmental bodies, the population, business structures, and experts gardening questions, such as reconstruction, uprooting, restoration;
- create midterm and long-term communal target programs on the preservation and development of territories protecting planted trees and shrubs;
- form an ecological fund regulating financial streams in this sphere, which will collect receipts from fees for removing plantings, penalties (transferred by the state), voluntary payments and so on. These funds will be used for other expenses except gardening;
- exert public control over the creation of green zones, including use of a hot line to ensure quick reaction

- to legislative infringements, using the "Aarhus centers" as a model;
- create public precedents for the full implementation of legal mechanisms through the mass-media, public hearings, and different types of information centers and other actions;
- print and disseminate a management guide for townspeople on "How to protect green spaces";
- and demand that deputies in the National Assembly raise the question of protecting urban green spaces.

## Bibliography

- Danielyan K.: Economic weekly journal of Armenia, October 19, 2005, No. 37 (645)
- Egorov A.A., Neshataev V.Yu., Makarova N.V.: Opyt ucheta zelenyh nasazhdenij (na primere municipal'nogo obrazovaniya «Svetlanovskoe», g. Sankt-Peterburg) [Experience of the inventory of green spaces (using the example of the "Svetlanovskoe" borough, St. Petersburg)], Materials of the XI International Scientific-Practical Conference "Problemy ozeleneniya krupnyh gorodov" ["Problems of big city green spaces"], Moscow, February, 2008, http://redirect.subscribe.ru/\_/-/www.gardener.ru/docs/konf/23.doc
- Fedorova N.B.: Metody i organizaciya monitoringa sostoyaniya zelenyh nasazhdenij obshchego pol'zovaniya v Sankt-Peterburge [Methods and organization of monitoring the condition of general use green zones in St. Petersburg], Materials of the XI International Scientific-Practical Conference "Problemy ozeleneniya krupnyh gorodov" ["Problems of big city green spaces"], Moscow, February, 2008, http://redirect.subscribe.ru/\_/-/www.gardener.ru/docs/konf/37.doc
- Maslov I.V.: Gradostroitel'naya ekologiya [Town-planning ecology], Moscow, 2003.
- Morozova G.Yu., Baburin A.A.: K voprosu o stoimosti zelenyh nasazhdenij [On the question of the cost of green zones],
  Materials of the XI International Scientific-Practical Conference "Problemy ozeleneniya krupnyh gorodov" ["Problems of big city green spaces"], Moscow, February, 2008, http://redirect.subscribe.ru/\_/-/www.gardener.ru/docs/konf/25.doc
- Sapozhnikova L.Ya.: Kak gorozhane mogut zashchitit' zelenye nasazhdeniya. Rukovodstvo po obshchestvennomu uchastiyu [How townspeople can protect green spaces. Instructions for public participation], Bishkek 2005, http:// www.caresd.net/img/docs/3062.pdf
- Sergeychik S.A., Sidorovich E.A., Rupasova Zh.A.: Optimizaciya okruzhayushchej sredy sredstvami ozeleneniya [Optimization of environmental gardening means], Minsk, 1985, 375pp.
- SNiP 2.07.01.-89\*: Gradostroitel'stvo. Planirovka i zastrojka gorodskih i sel'skih poselenij [Town building. Planning and development of city and rural settlements], Moscow, 1990, 112pp.
- SNiP 3-10-75: Blagoustrojstvo territorij [Development of building estates), part 3, Moscow, 1976, 95pp.
- Tretyakova T.A., Sapozhnikova L.Ya.: Sposoby vovlecheniya mestnogo soobshchestva v razvitie territorij [Ways of involving the local community in the development of building estates], Bishkek, 2004.
- Shelepov D.Yu.: Zelenye nasazhdeniya kak faktor ekologo-ekonomicheskoj cennosti territorii v krupnyh gorodah [Greenery as a factor of ecological-economic value in the territory of big cities], Ekonomicheskij vestnik Rostovskogo gosudarstvennogo universiteta [Economic Bulletin of Rostov State University]. 2006—No. 1/1. 100pp.

### Internet Sites

• www.armstat.am Site of the National Statistical Service of the Republic of Armenia

#### Legal Texts

• Constitution of the Republic of Armenia; Civil Code of the Republic of Armenia; Land Code of the Republic of Armenia; law of the Republic of Armenia "On town-planning"; law of the Republic of Armenia "On administrative offenses"; law of the Republic of Armenia "On ecological formation and population education"; Criminal Code of the Republic of Armenia; Governmental decree of the Republic of Armenia "On the statement of an order of informing about planned changes of inhabitancy and the participation of representatives of the public in discussions about the published town-planning programs and projects and decision-making", 10/22/1998, number 660; Governmental decree of the Republic of Armenia "On the establishment of conditions, terms and revision and announcement procedures voiding the expert judgment of examination environmental impacts", 6/18/2003, item 623 number 701; Governmental decree #1318-N "On the statement of the law and order for technical requirements for the sizes of green zones in urban areas", issued October 30, 2008