



European Landscape Convention main provisions implementation measures in strategic spatial planning documents

(Armenian experience)

Strategies and policy documents in favour of the landscape

National policies for the implementation of the European Landscape Convention: challenges and opportunities

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European Landscape Convention main provisions implementation measures in strategic spatial planning documents

In the Spatial development planning process, guided by the principles of sustainable development and to ensure healthy, comfortable, safe and secure environment for the population, it becomes necessary that the human activities, in the result of which the landscapes are transformed and lose their unique features and key characteristics, initially be organized on the basis of the balance between natural and man-made systems. making predictable consequences of these impacts, and thus to develop a complex of appropriate measures to prevent from negative impacts and develop those for protection of valuable parts of natural landscapes, to provide a favorable, available, environmentally safe and friendly, comfortable living environment to satisfy humans main demands: **living, working, recreation.**

This include :

Urban sphere

- Protection of landscapes from overloading
- Regulation of densities in the central urban zones, limitation of unregulated expansion
- Expansion of green areas, parks maintenance, pedestrian alleys development (the city green framework arrangement), bicycle paths organization
- Limitation of transport communications in historical and protected areas

Environment sphere.

- Carbon emission mitigations,
- Competible, environmetally friendly city spatial development variant choice
- Energy saving buildings erection (reconstruction), renewable energy usage
- Waste amount reduction (reusage, recycling up to 30-50 %)),
- Sustainable transport organization (competible communication systems, retracing the transit highways out of the city living areas boundaries, new transport means usage, pedestrian and bicycle movement provision
- Sustainable engineering infrastructure

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The need for landscape issues consideration in spatial planning documents

All three types of landscapes-unique landscapes, ordinary and degraded types, require appropriate action such as:

- promote landscape protection (refer more valuable landscapes),*
- government (to all kinds of changes) and*
- planning process (the creation of new landscapes).*

Legislative regulation of the above mentioned issues in local spatial planning documents drafting process is regulated by normative-legal documents adopted in various sectors.

Landscape planning is being developed as a separate department or independent project involved in spatial planning documents.

In the RA Government REGULATION appendix on communities (settlements) Master Plans Development, expertise, agreement and approval and amending (2011 December 29, N 1920-N), based on European Landscape Convention main provisions, the detailed information on landscape different types appropriate actions guidelines is given. They are:

According to the design assignment the following items are to be considered:

- Data on the use of green public areas, landscapes and recreational areas.*
- The main priority directions of development (the basic requirements for the development of spatial organization of community: the preservation and improvement of the landscape, of engineering infrastructure, based on community development programs,).*
- The main perspective directions of spatial development of the community, including: The community development-driven programs requirements for the community architectural and functional development, the organization of the maintenance and development of engineering infrastructure, preservation and improvement of the linear objects of the environment, landscape protection and improvement, separation of regulatory areas of urban development, territorial organization and development, the preservation of sites of historical and cultural heritage protection.*

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Project elaboration requirements:

- Community spatial development plan (main plan), in the result of complex evaluation plan based on the analysis of the actual land use are proposed and fixed the project proposals for the protection of landscapes, restoration or organization (creation)

Within the Graphical part of drawings:

The landscape organization plan outlines :

- the forest, water and other target positions, as well as the areas included in the areas of natural complexes within the community boundaries,
- classification and evaluation of landscapes, including natural complexes, as well as other, including degenerative areas,
- separation of different separation modes assessed landscapes by zones,
- special protection measures for the essential features of the landscape,
- The recommendations on the development of landscape design, restoration or creation (creation).

With the adoption of the Convention into spatial planning amending regulatory document processing, plenty of new items concerning landscapes appear: the detailing of landscape issues complex in spatial planning and urban planning policies, as well as in cultural, environmental, agricultural, social and economic, and any other policies with possible direct or indirect impact on the landscape, carrying out public participation of local and regional authorities and other stakeholders, in raising civil society, private organizations and public authorities awareness about the value of landscapes, their role and the changes implemented or planned in it.



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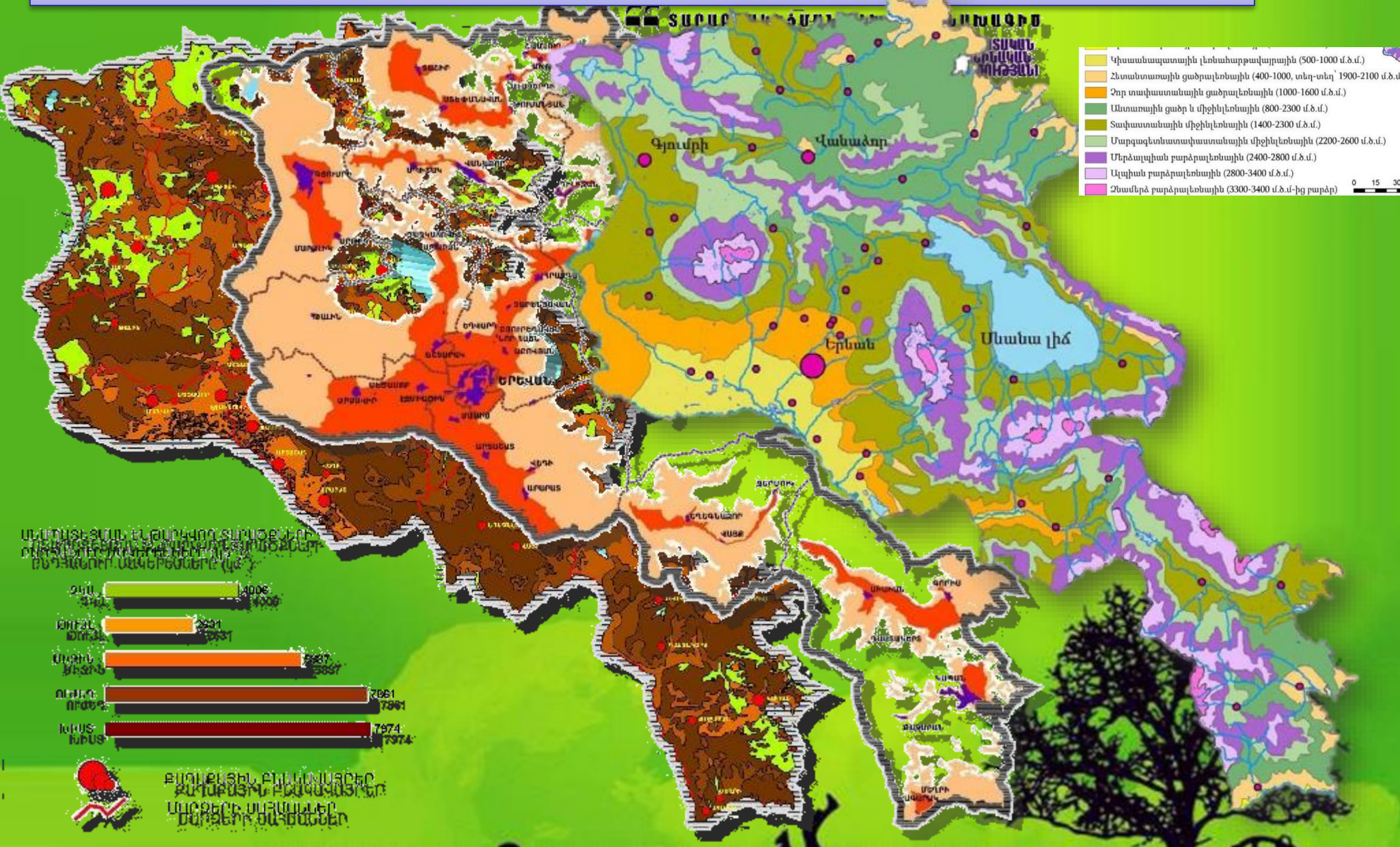
*Country level (setling system analysis)

Area, sq,km	29743
forests, %	12.7
Water areas, %	5.6
Agricultural lands, %	46.8
other lands, %	34.9
• Urban settlements`	48
• Rural settlements`	866



In the result of multifactor analysis the areas utilization condition the favorable zones for each function has been outlined

Desertification processes in Armenia, Urban utilization on the territory of RA, Landscape zones of Republic of Armenia





«Խոսրովի անտառ» պետական արգելոց
Khosrov Forest State Reserve



«Արևիկ» ազգային պարկ
Arevik National Park



«Արփի լիճ» ազգային պարկ
Arpi Lake National Park



«Դիլիջան» ազգային պարկ
Dilijan National Park



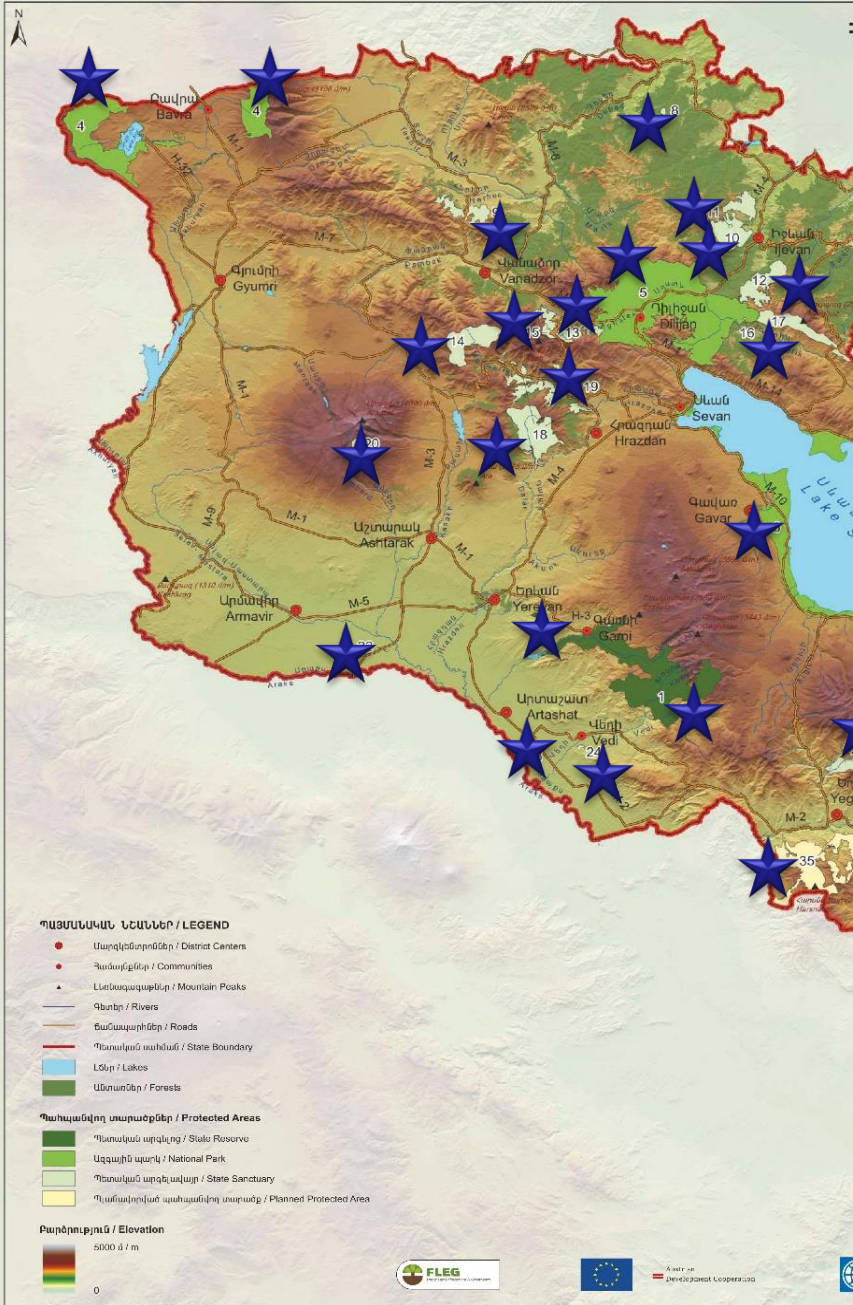
«Էրեբունի» պետական արգելոց
Erebuni State Reserve



«Սևան» ազգային պարկ
Sevan National Park



«Արարատի ջրանոս կարմիր» պետական պահպանվող տարածք
Ararat Vordan Karmir State Sanctuary



Հայաստանի բնության հատուկ պահպանվող տարածքները

Պետական արգելոցներ և ազգային պարկեր

- «Խոսրովի անտառ» պետական արգելոց
- «Էրեբունի» պետական արգելոց
- «Շիկահող» պետական արգելոց
- «Արփի լիճ» ազգային պարկ
- «Դիլիջան» ազգային պարկ
- «Սևան» ազգային պարկ
- «Արևիկ» ազգային պարկ

Պետական արգելավայրեր

- «Զիկատար»
- «Գյուլագարակի»
- «Իջևանի»
- «Արջատիլենու»
- «Գանձաքարի-Վերին Աղղանի»
- «Մարգահովտի»
- «Հանքավանի ջրաբանական»
- «Կովկասյան մրտավարդի»
- «Ախնաբարի կենու պուրակ»
- «Գետիկի»
- «Արզական-Մեղրածորի»
- «Բանքսի սոճու»
- «Արագածի ալպյան»
- «Գիլու նոսրանտառային»
- «Արարատի որդան կարմիր»
- «Խոր Վիրապ»
- «Գոռավանի ավազուտներ»
- «Եղեգիսի»
- «Ջերմուկի ջրաբանական»
- «Ջերմուկի անտառային»
- «Հերերի նոսրանտառային»
- «Սև լիճ»
- «Գորիսի»
- «Ջանգեզուր»
- «Բողաքարի»
- «Սոսու պուրակ»

Պլանավորված պահպանվող տարածքներ

- «Ջերմուկ»
- «Գնիշիկ»
- «Խոստուպ»

Specially Protected Nature Areas of Armenia

State Reserves and National Parks

- 1 Khosrov Forest State Reserve
- 2 Erebuni State Reserve
- 3 Shikahogh State Reserve
- 4 Arpi Lake National Park
- 5 Dilijan National Park
- 6 Sevan National Park
- 7 Arevik National Park

State Sanctuaries

- 8 Zikatar
- 9 Gyulagarak
- 10 Ijevan
- 11 Arjatkhlenti Hazelnut
- 12 Gandzakhar-Upper Aghdan
- 13 Margahovit
- 14 Hanqavan Hydrological
- 15 Caucasian Rose-bay
- 16 Akhnabat Yew Grove
- 17 Getik
- 18 Arzakan-Meghradzor
- 19 Bank's Pine
- 20 Aragats Alpine
- 21 Juniper Open Woodland
- 22 Ararat Vordan Karmir
- 23 Khor Virap
- 24 Goravan Sands
- 25 Yeghegis
- 26 Jermuk Hydrological
- 27 Jermuk Forest
- 28 Herher Open Woodland
- 29 Sev Lich
- 30 Goris
- 31 Zangezur
- 32 Boghaqar
- 33 Plane Grove

Planned Protected Areas

- 34 Jermuk
- 35 Gnshik
- 36 Khustup



High valued landscapes of RA



European Landscape Convention main provisions implementation measures in strategic spatial planning documents

Regional level (territorial planning structure analysis)



Natural conditions

- Natural agricultural area
- Location at altitudes above sea level
- The coefficient of horizontal partition area (km / km²)

Morphological conditions

- Relief type (plain, hilly, ridged, combined)
- The steepness of the slope (slope in degrees)
- The exposition of the slope (north, northeast, northwest, south, southeast, southwest)

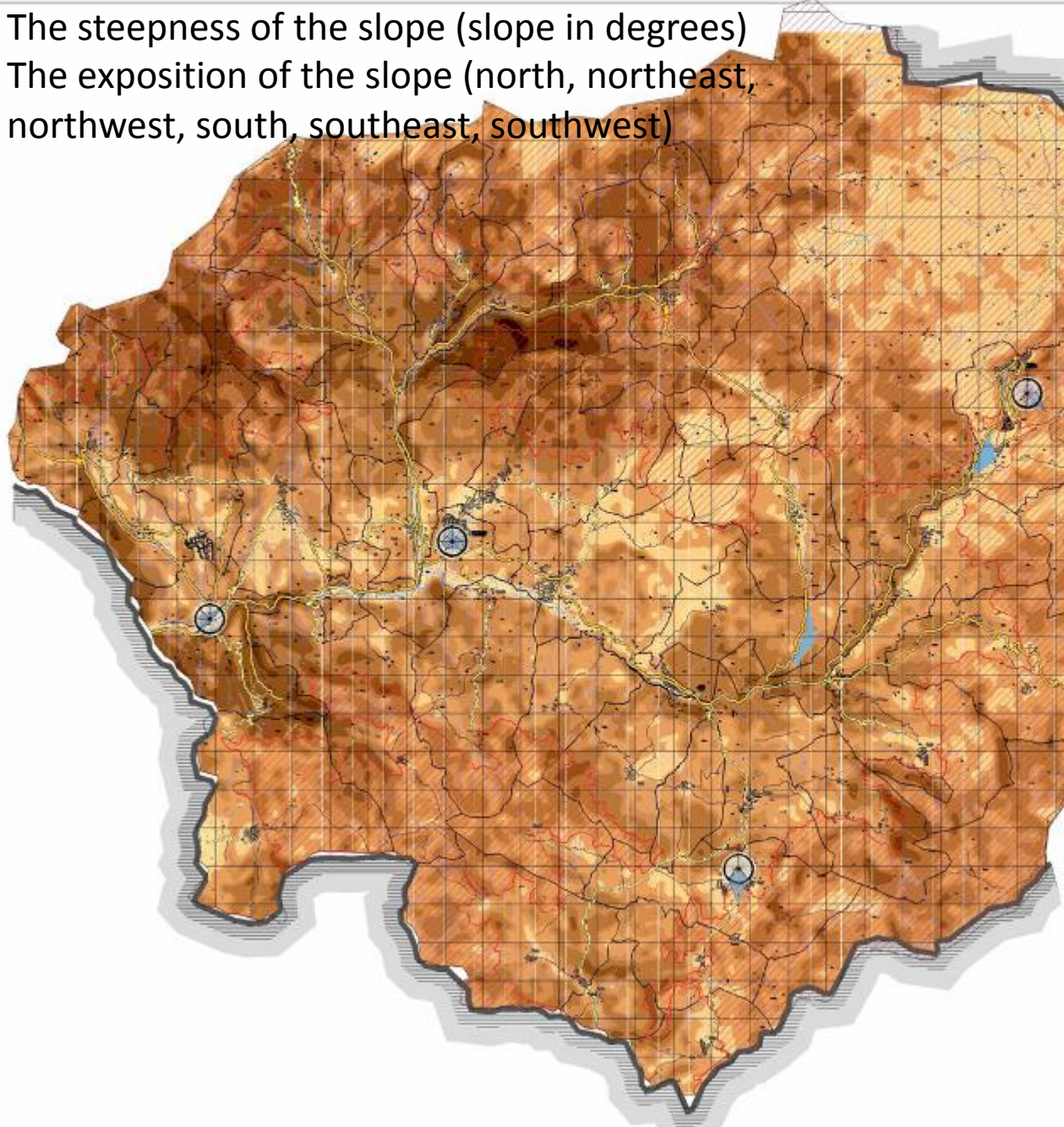
Geological conditions

- Soil-forming material (coating, loess, alluvial and others.)
- The level of groundwater, m
- The salinity of groundwater
- The structure of the soil
- The degree of stoniness (weak, medium, strong)
- Exposure to wind erosion (weak, medium, strong)
- Exposure to water erosion (weak, medium, strong)
- The meliorative condition of land (drainage, irrigation)

Aesthetic conditions

- Dominant and specific points

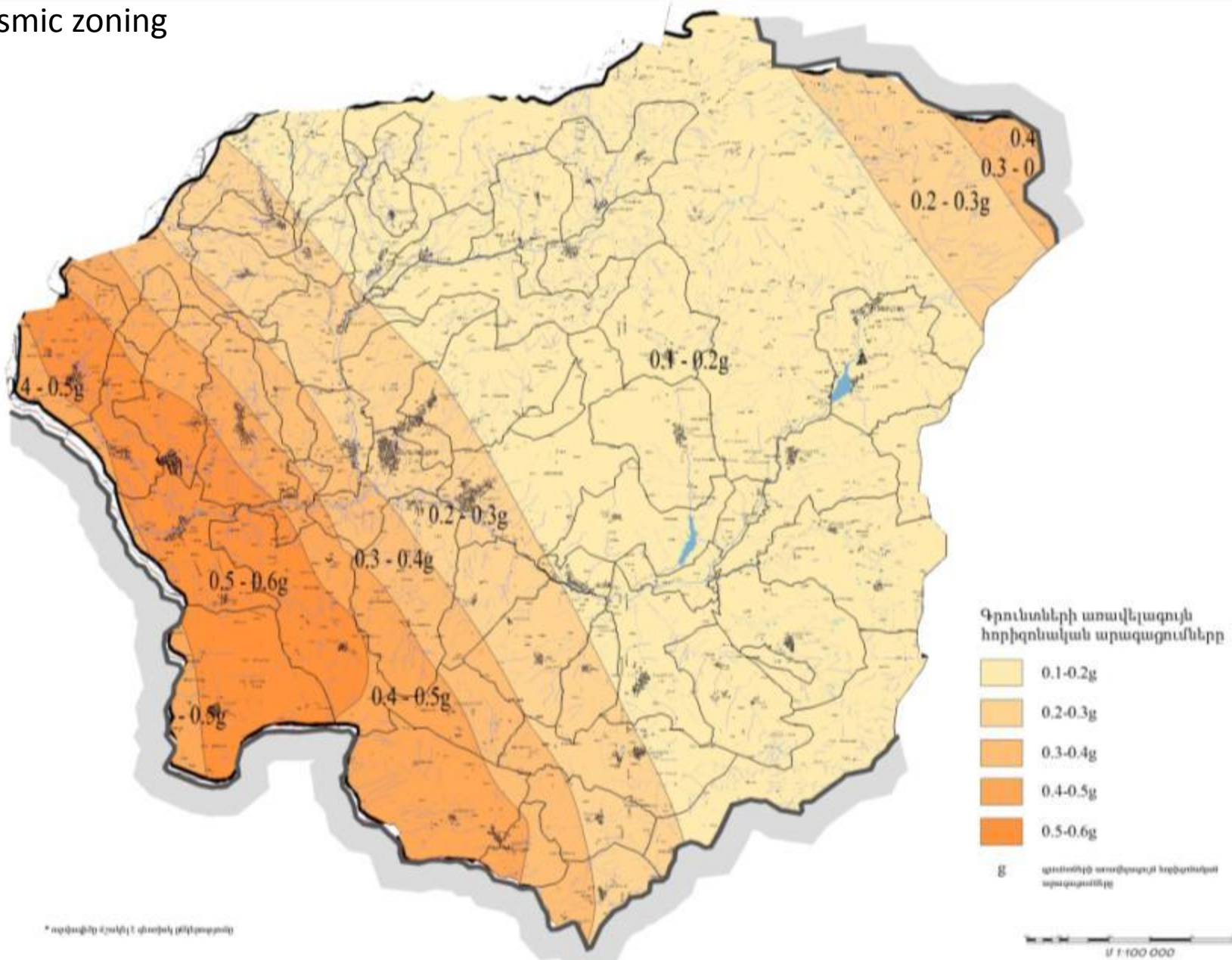
The steepness of the slope (slope in degrees)
 The exposition of the slope (north, northeast, northwest, south, southeast, southwest)



ԶԳ	ԵՐԱԿ	ԹԵՐՈՒԹՅՈՒՆ	ՍԱԿԵՐՏՈՒ ՉԱ.	ՏՈՒՈՍ
1		75%-100%	178	0,08%
2		65%-75%	3164	1,37%
3		50%-65%	25478	11,04%
4		35%-50%	55190	23,91%
5		25%-35%	50956	22,08%
6		15%-25%	57532	24,93%
7		7%-15%	35032	15,18%
8		0%-7%	3253	1,41%

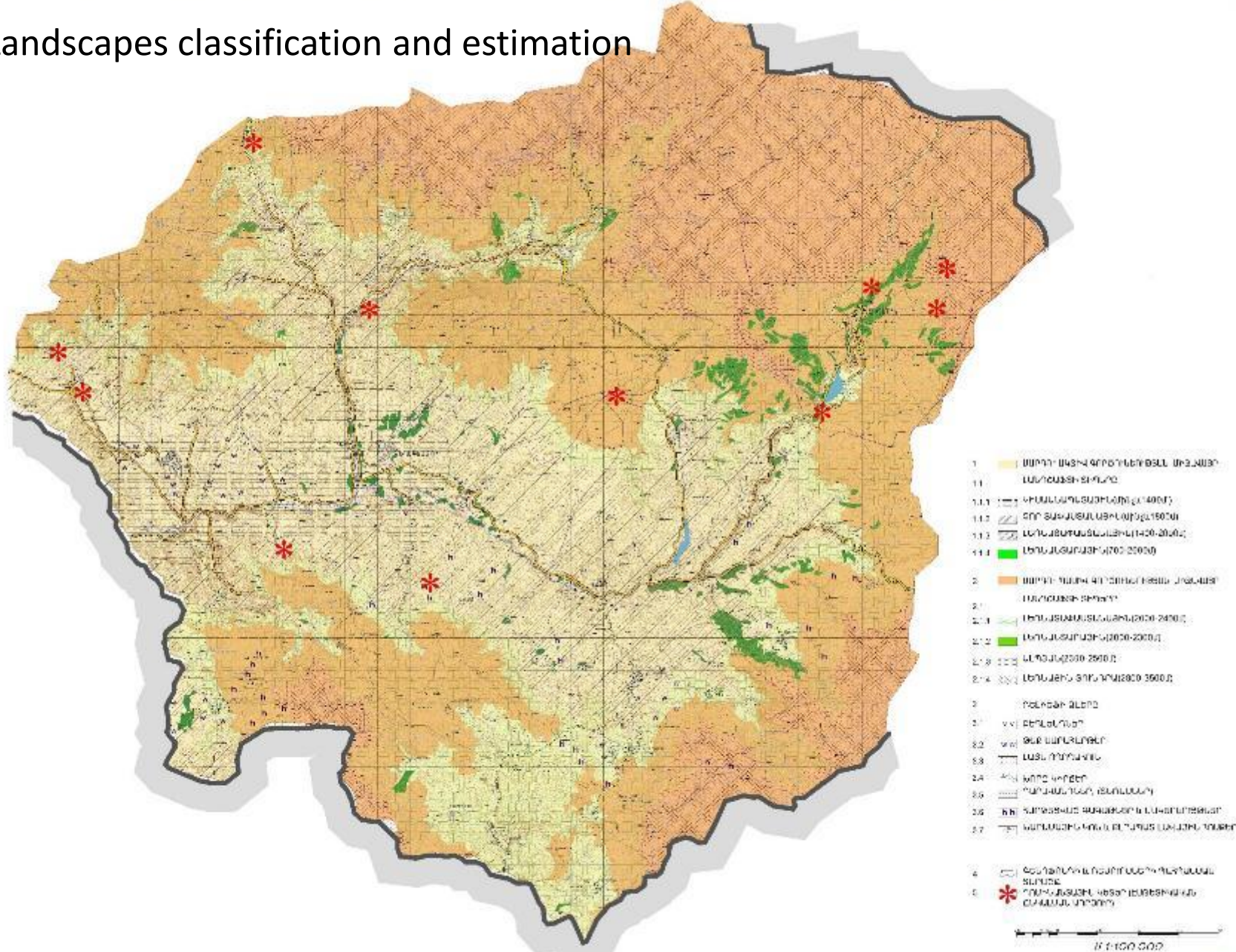
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ՅԻՆԱՍՈՒՄ					
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ՋԵՐԱՄԱ					
ԱՐՄԱՆԱ					

Seismic zoning



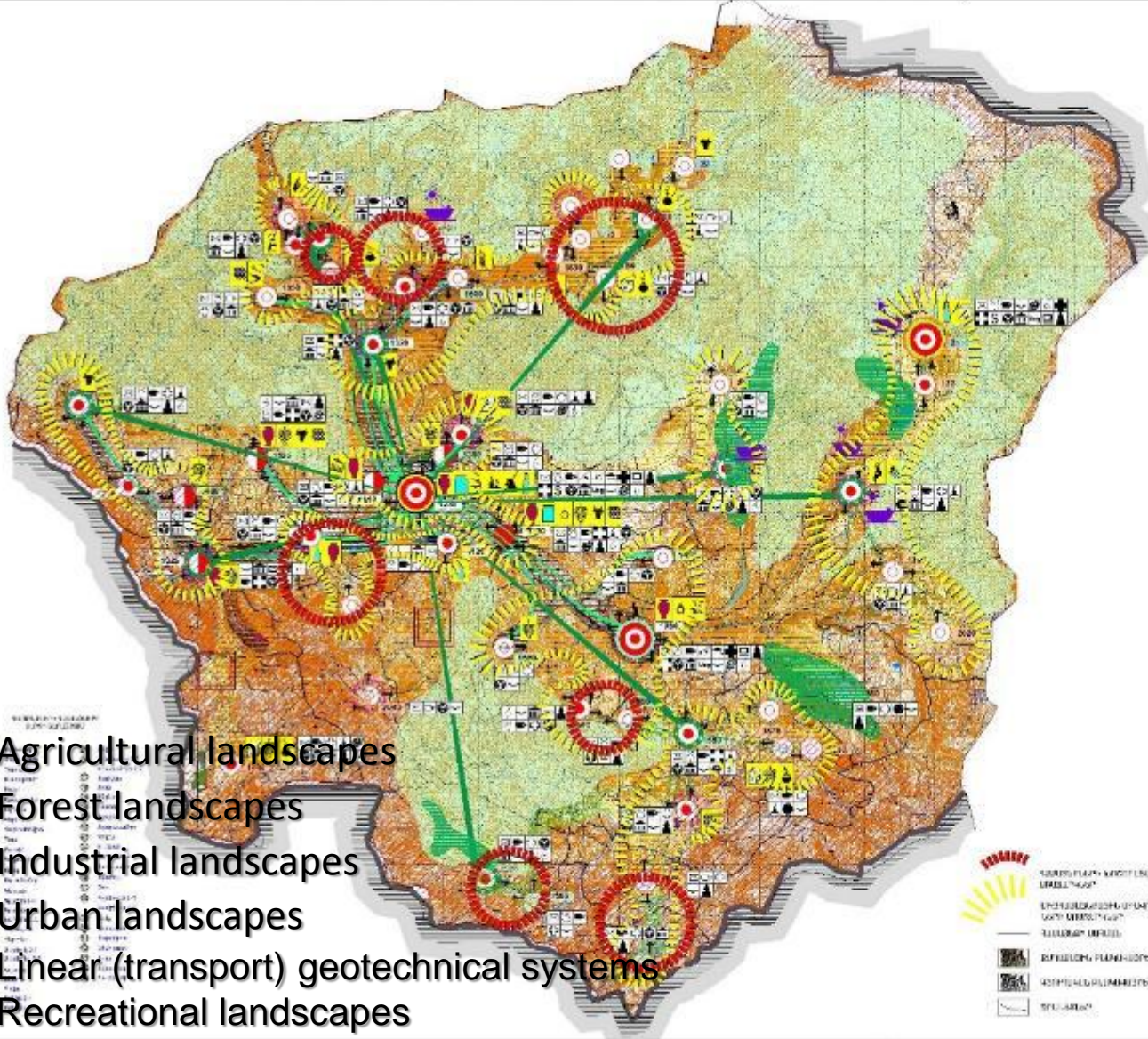
* Գրանցված է Հայաստանի Հանրապետության Հողագրա-տեղագրական կոմիտեի կողմից

Landscapes classification and estimation

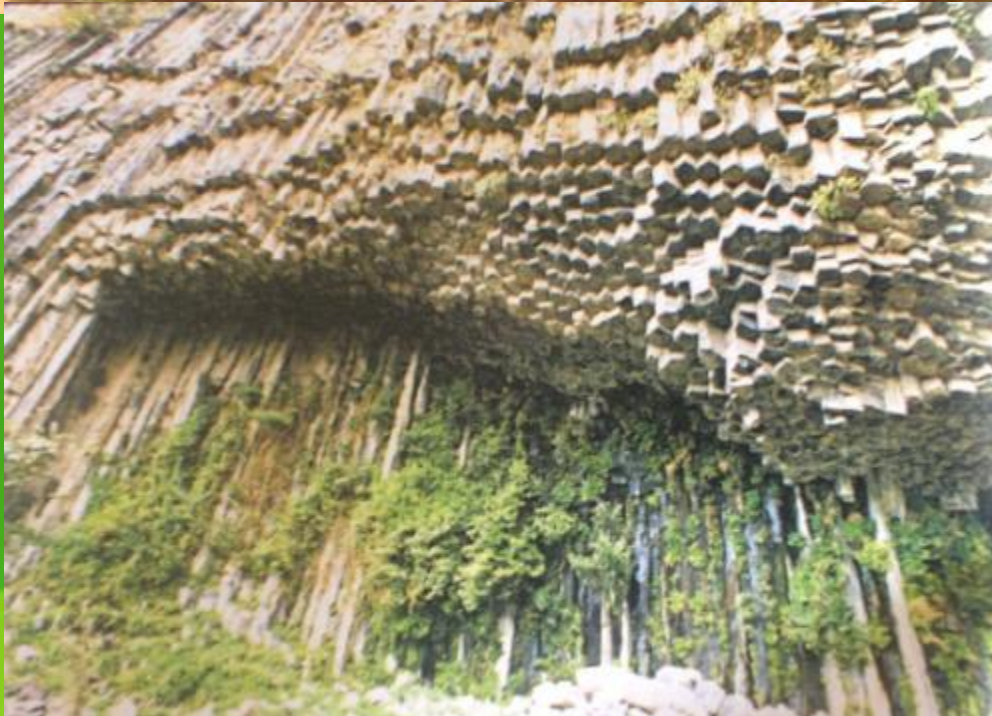


Appropriate use for each type of landscape

ՀՀ ՎԱՅՈՑ ԶՈՐԻ ԱՐԹԻ ՏԱՐԱԾՔԱՅԻՆ ՀԱՏԱԿԱԳԾԱՆ ԵՐԱՍՊԻՇ (ԶԵՐՈՒԿԻ ԵՐ ՕՐԱՆԱԿԱԿԱՑՈՒ ՏԱՐԱԾԻ ՆԵՐՈՒԱՍՔ) ՀԱՏԱԿԱԳԾԱՅԻՆ ԳԵՈՒՆԿԱՐԱՅԻՆ ԿԱՈՒԹՅԱԾՔ (ԳԻՄՆԱԿԱՆ ԳԾԱԳԻՐ)

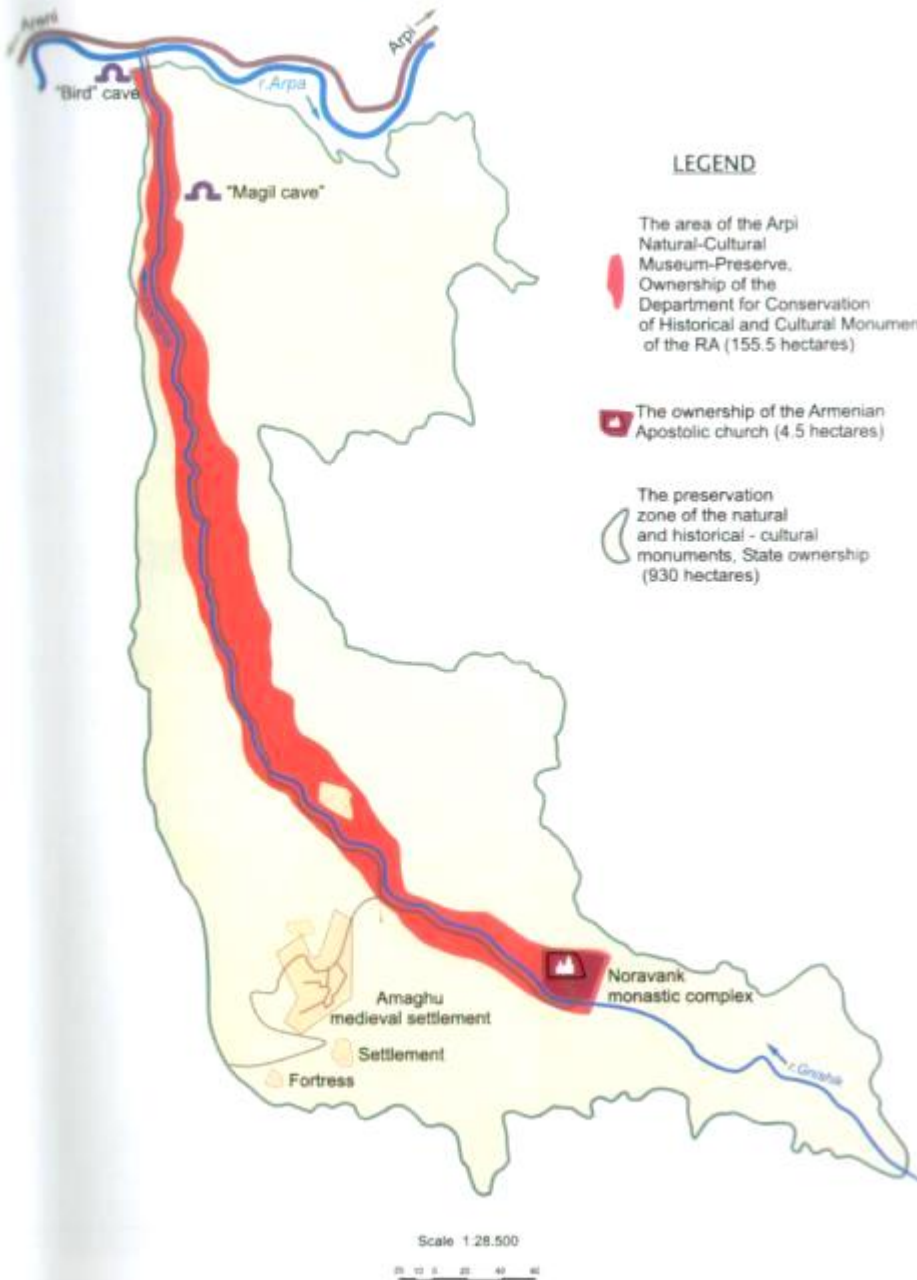


- Agricultural landscapes
- Forest landscapes
- Industrial landscapes
- Urban landscapes
- Linear (transport) geotechnical systems
- Recreational landscapes
- Formation of protected areas



7. The upper part of GNISHIKADZOR AREA

(ON THE BASE OF TOPOGRAPHIC MAP)



8. PLAN OF THE "MAGIL" CAVE



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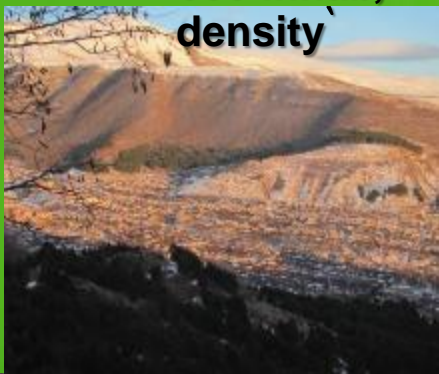
Landscape dominating points and harmony in natural and cultural environment



City level (master plan planning structure analysis)

The main direction of architectural and landscape analysis is the choice of solutions, in which the growing city does not displace or suppress the landscape, and incorporates it into itself, enriched by them.

Community area	5039.13 ha:
Built up area	1008,25 ha
Settlement area	592,8 ha
Population number	21
000 inhab,	
density	35 pers/hha



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As one of the basic principles for on urban projects

is the necessity of implementation of landscape-oriented urban development of the areas, which means that fundamental landscape factors (rivers, reservoirs, forestry, hills, etc.) become urban development guiding dominants. Moreover, not only preserving, but also directing urban development at any level. Within the local-level spatial planning documents, elaboration of the concept of the free spaces of the city also should be developed, in the frame of which a systematic study and planning of all the undeveloped areas is carried out as a separate urban planning object. This, together with the built-up residential and industrial areas, formulates and regulates the settlement planning structure. Each element in the free areas system is of a different function, that is.

- planning regulatory,
- recreational,
- sanitary-hygienic,
- microclimatic,
- economic, technical,
- architectural and artistic.

All mentioned functions in specific conditions act as mutually complementary, neutral or exclusionary.

As a part of spatial planning documents of local level main zones list of land use restrictions is defined/ Special legal regimes / for guidance of the activities in corresponding parts of the cities is to be carried out, in accordance with the economic and proper use of landscapes, eg:

- spaces and protection zones of the objects of cultural heritage
- water protection zones
- coastal protection zones
- floods, landslides and other dangerous occurrences zones
- industrial facilities sanitary zones
- zones of protected natural area



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Integration of landscape components and the territorial impact assessments, (in particular, harmony and interconnectedness) can be accessed only by combining the two main actions.

- development
- protection

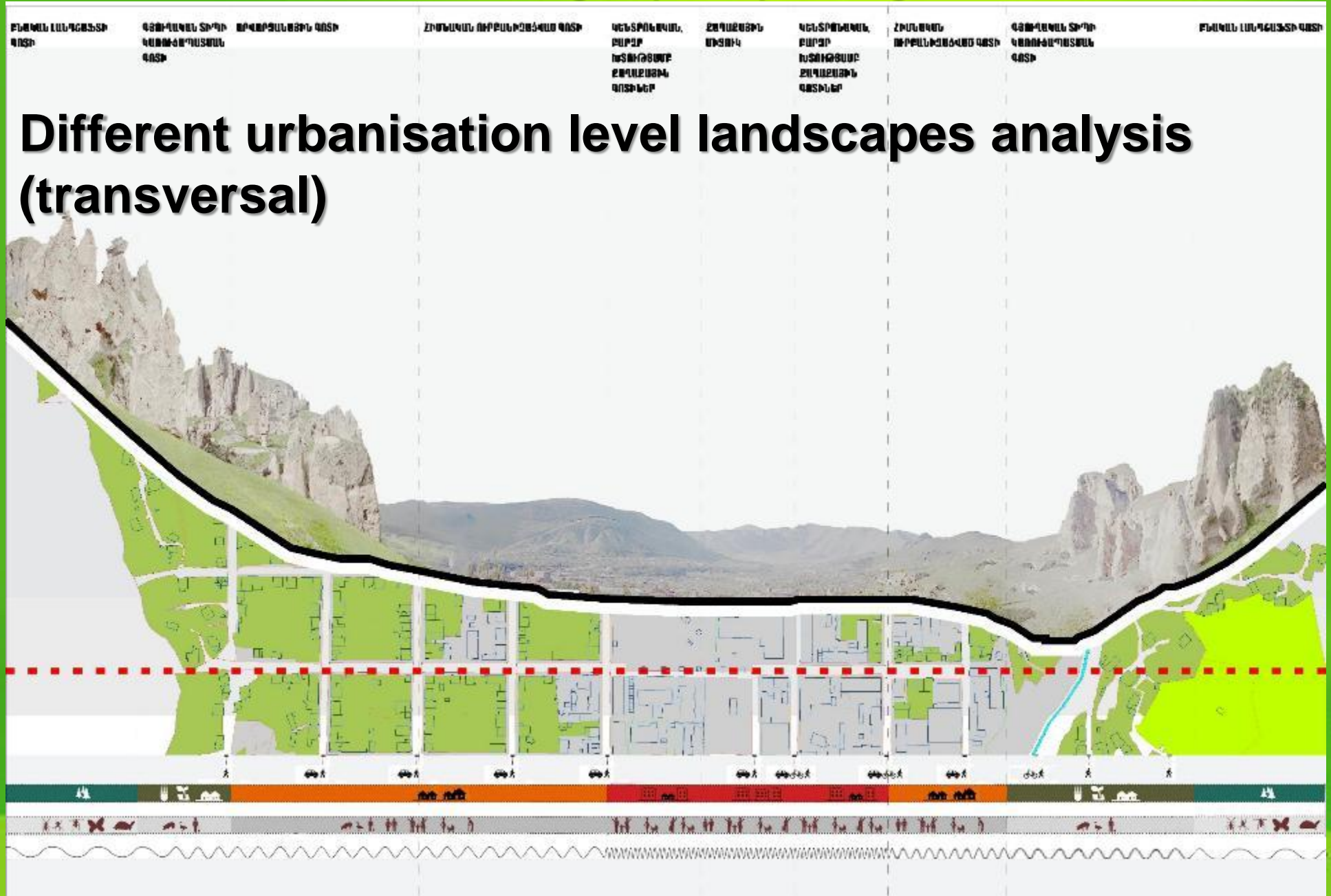
Within the territories economic and social development the following functions are to be combined.

- cultural functions
- environmental functions.

Forming a development strategy based on:

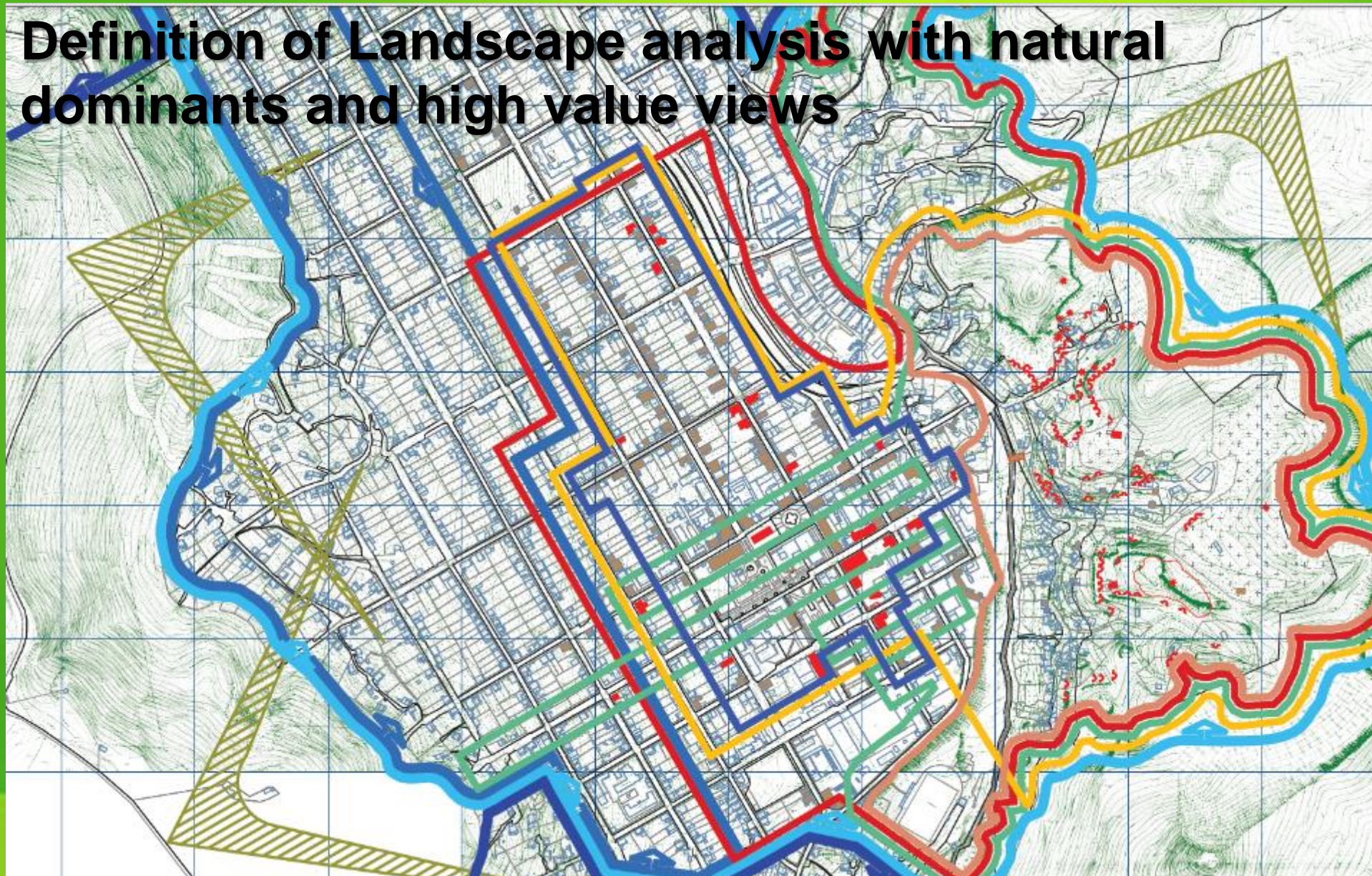
- as on the active development of the regions,
- as well as the operation and maintenance savings
- public awareness, ensuring transparency in decision-making, equality and a sense of responsibility.

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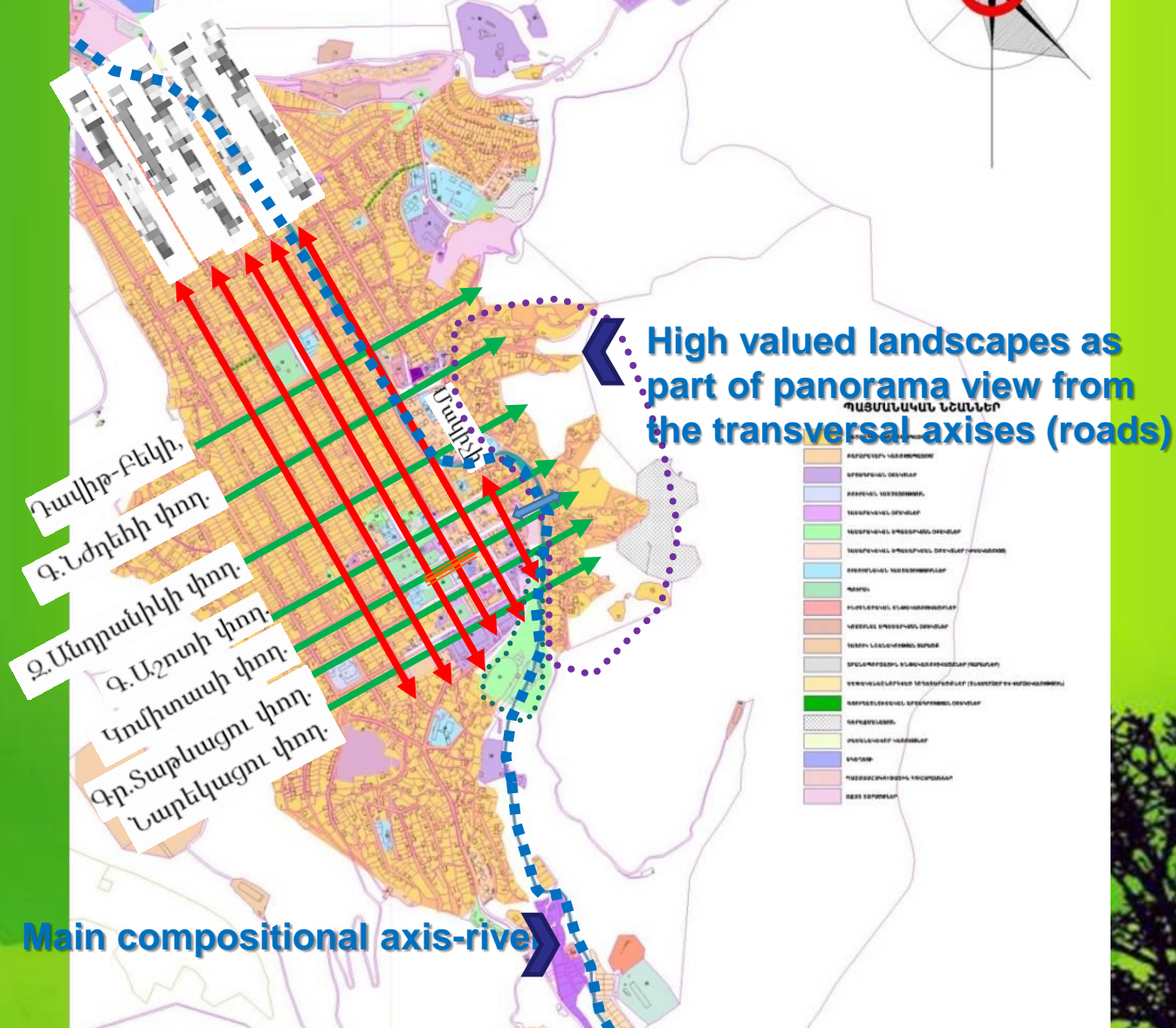
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Definition of Landscape analysis with natural dominants and high value views



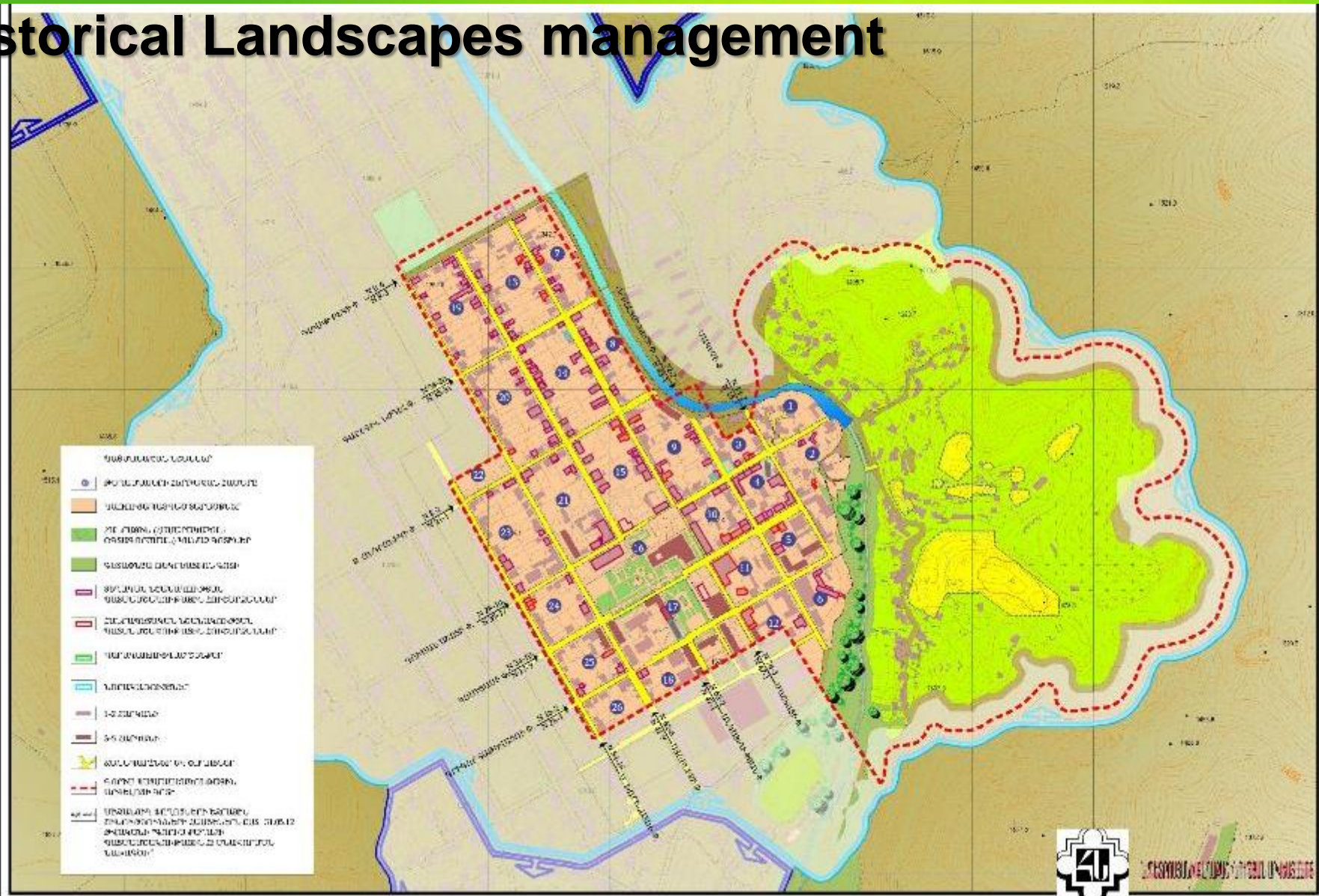
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Landscape components as compositional accents



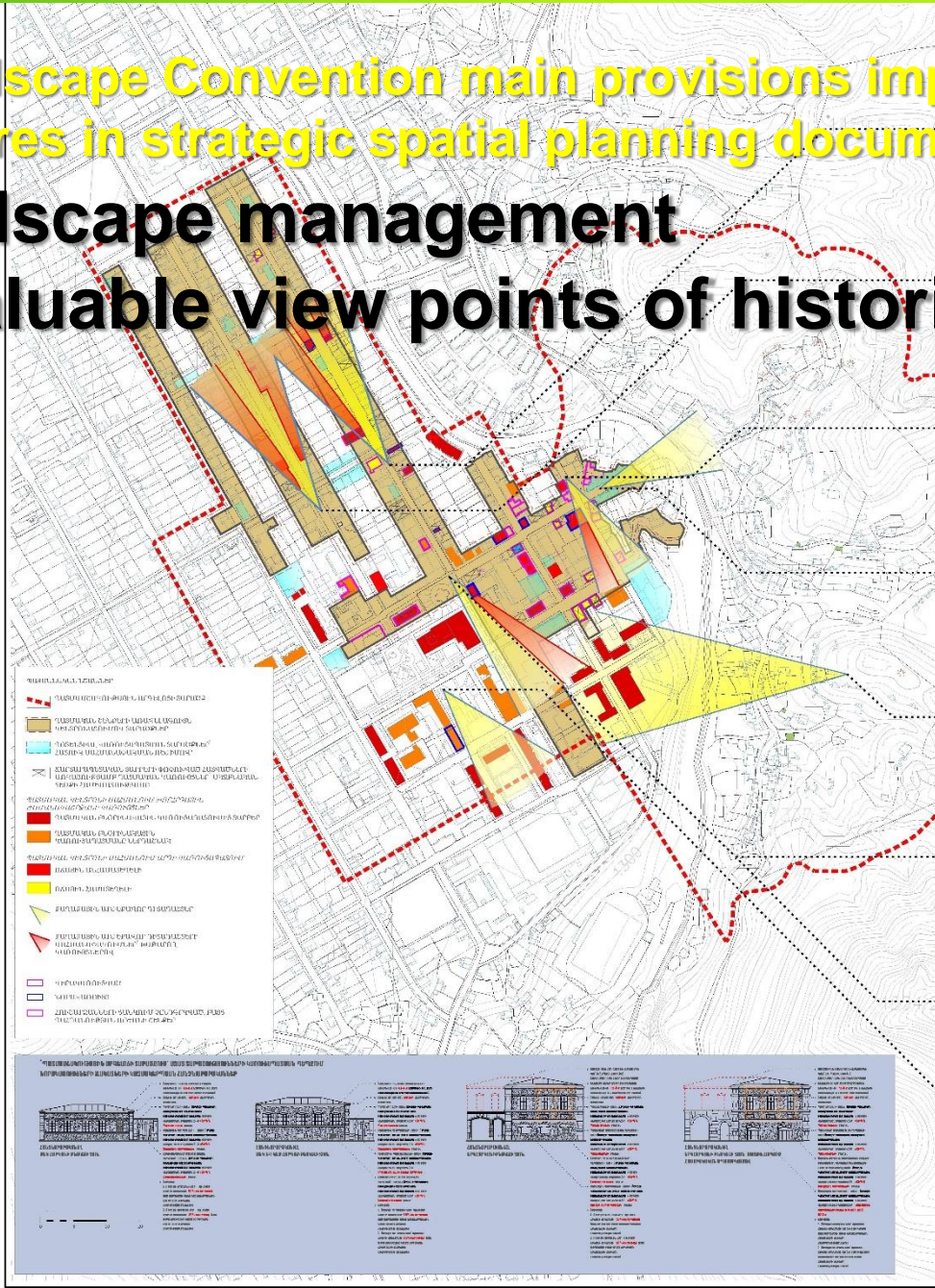
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Historical Landscapes management



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Historical Landscape management Keeping the valuable view points of historical landscapes



ՔՐԱՊԵՏՈՒԹՅԱՆ ՀԱՏՎՈՆԵԿԱԿԱՆ ՄՈՒՈՒՆԵՏՆԵՐ ԿԱՐԿՈՒՄԻՏՈՒՄ ԵՎ ԳՄԱՎԱԿՐՄԱՆ ԴՐՈՎՈՒՄ

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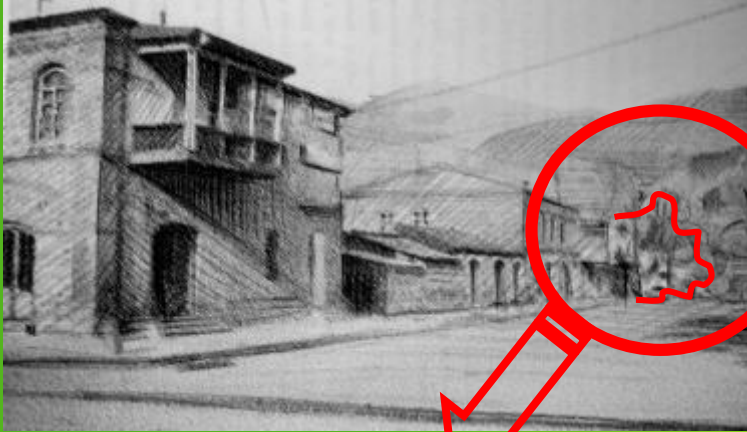
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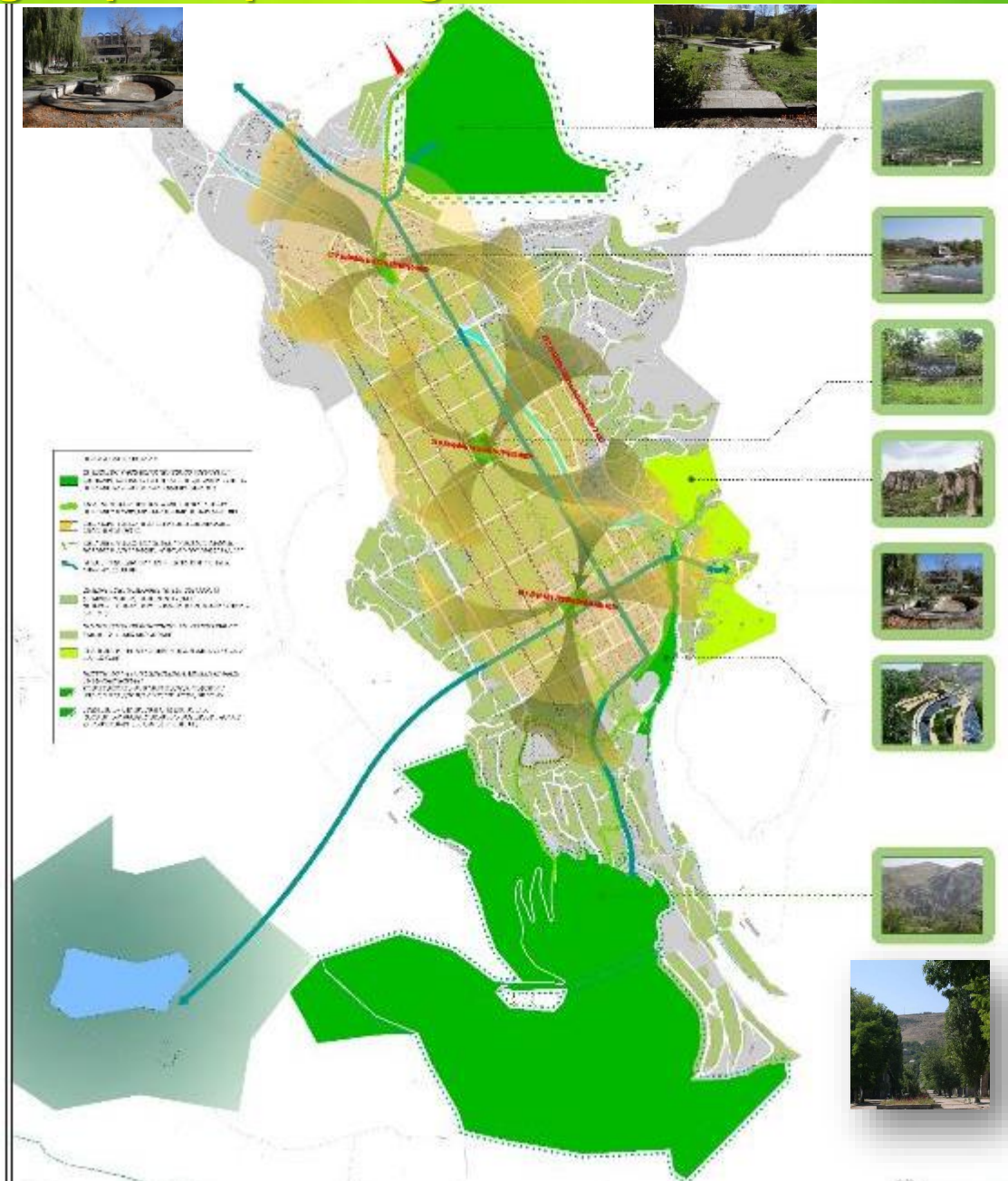
Landscape classification and evaluation
High valued landscapes scenarios involvement into city structure



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Green frame formulation and development of the city consisting of:

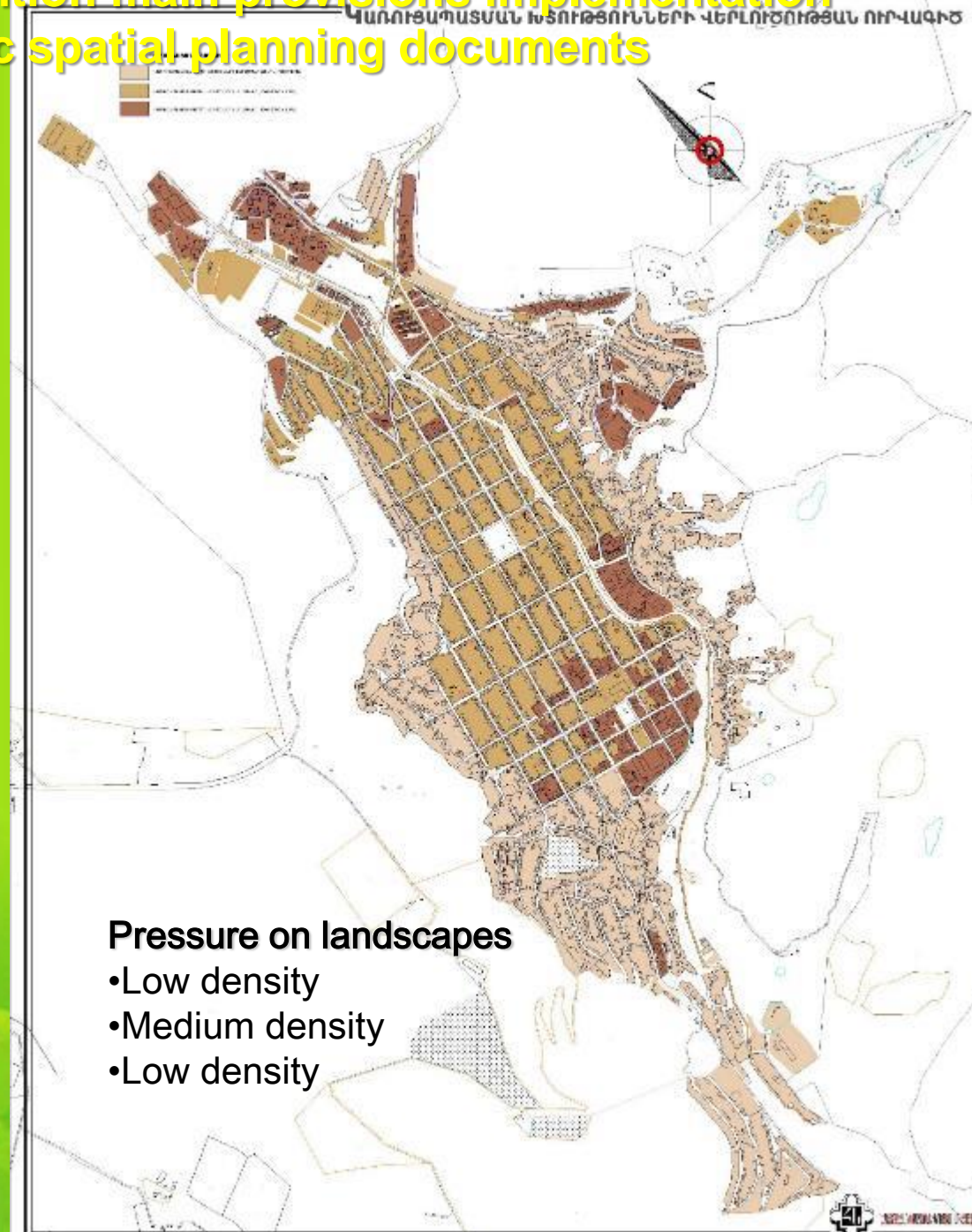
- Public green spaces
- Landscape parks
- Green corridors
- Natural landscapes
- Forests
- Water surfaces (rivers, coast and lakes)



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Next phase to the landscape quality objectives definition is the forecast of Landscape separate functional zones with defined function's corresponding permissible load. In urbanized areas it is regulated in accordance with the definition and ensuring the density of population and construction, for recreational areas the total recreational capacity is calculated, which is limited by indicators of permissible load on the natural landscape. 3 criteria are to be separated:

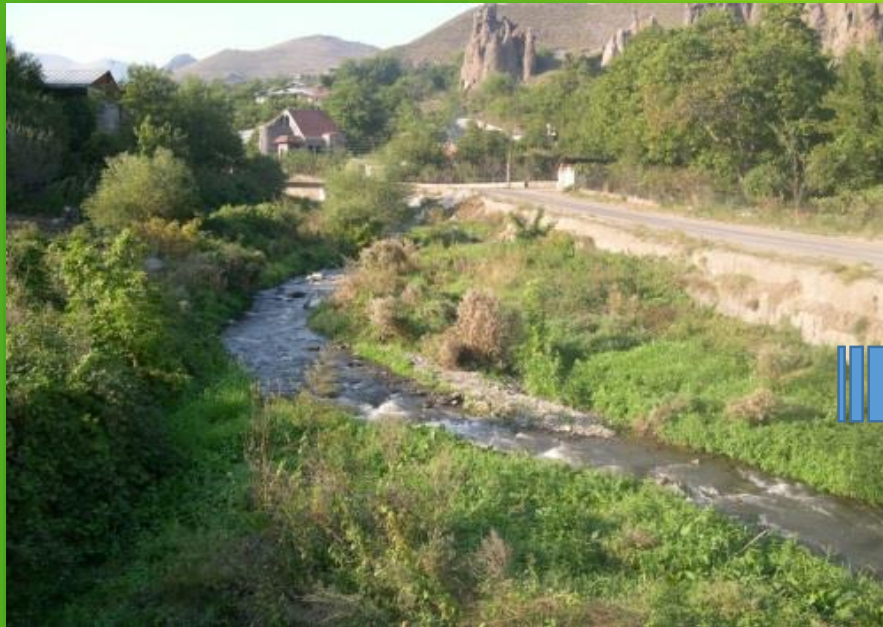
- Bio-ecological, based on the stability of natural landscapes,
- Technological, related to the physical and the hygienic requirements of the landscape for different types of recreational activities,
- Psychological, aesthetic, based on the requirements to the aesthetic factors of each activity, psychological comfort, as the immediate surroundings, besides comfort, design also emotional backdrop, causing positive or negative emotions.



Pressure on landscapes

- Low density
- Medium density
- Low density

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Protection through development (clean bed and coastal areas for usage)

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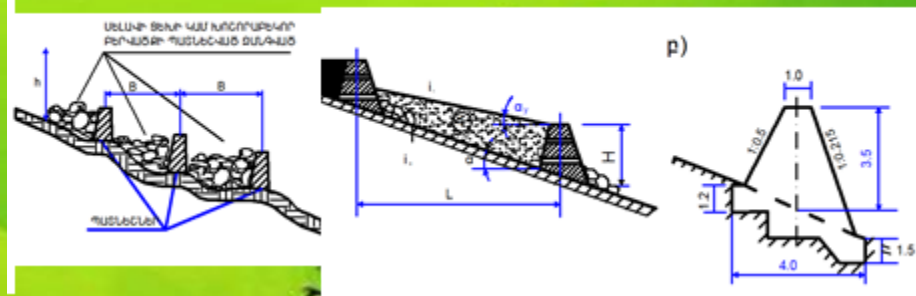
Recultivation of degraded landscapes



Protection from erosion, landslide



barrages



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Defragmentation of landscapes as an environmental problem





**THANK
YOU**

Conclusions

Architecture and landscape design in urban planning documentation should be based on,

- local
- natural
- and historical features.

The urban structures of great importance are to be paced in significant areas. They need to be emphasised and identified as their role is more significant in the remaining urban structures.

Landscape monitoring and reporting (reports).

strong pressures and the various problems connected with landscape protection, management and planning of activities that affect modern landscapes require continuous monitoring and exchange of information. Monitoring observations are made at different levels, local, regional, national or international, using the compatible monitoring systems and ensure continuous exchange of information.