**Introduction**

The limitation of natural resources and the extent of environmental impacts make it necessary for urban and regional planners to pay attention to the important role of green corridors and, in a broader context, ecological networks. The main emphasis is on the necessity of focus on the ecological relations of land allocation in the process of directing social programs. By giving ecological direction to the process of environment change, the improvement of socio-spatial structures in the process of programing environmental sustainability is reinstated. In this regard, the objectives of the transcendental process of urban landscapes zoning are defined as follows:

• Spatial conduction of landscapes zoning in providing ecological connections between main and secondary, natural and manmade and inside and outside urban corridors;

• Providibg patterns for optimized utilization of urban green corridors in order to expand the ecological function of landscapes zoning;

• Establishing different activities along urban green corridors in order to create multi-functional ecological network; and

• Incorporating the natural matrix of urban green corridors in urban infrastructures network.

In the process of conducting landscapes zoning, the transcendental function of eco-human systems becomes possible in following ways:

1) Providing *“utilization patterns”* in establishing balanced condition for maintaining the population and biodiversity of environmental systems (resource management aimed at balanced function of environmental systems);

2) Providing *“utilization patterns”* and *“socio-spatial patterns”* in establishing sustainable condition for maintaining the population and biodiversity of geographical-human systems (socio-spatial management aimed at balanced-sustainable function of landscapes zoning);
3) Providing *“utilization patterns”* and *“socio-spatial patterns”* in correlation with *“landscapes ecological zoning patterns”* in establishing condition for transcendental function of eco-human systems (eco-socio-spatial management aimed at balanced-sustainable-transcendental function of eco-human systems) (Table 1).

Considering the theoretical issues regarding the role of urban river-valleys as connecting corridors of ecological networks in urban landscapes zoning (Figure 1), the study involves identifying the spatial network of Darakeh River-valley, and assessing its function in different stages of Tehran’s metropolitan landscapes zoning: (a) *“balanced environmental structure”*, (b) *“sustainable geographical-human function”*, and (c) *“transcendent process of eco-human system”*. In realizing the purpose of the this study, the analytical framework of the theoretical principles, along with the Analytic Network Process and application of Super Decisions Software, has been used in evaluating the ecological function of Tehran’s Darakeh River-valley landscape.

**Materials and Method**

In order to achieve the required data, Tehran's Master Plan reports and all studies done on the spatial network of Darakeh River-valley were used. Once the studies were done and the required ground was identified, first a qualitative evaluation was done and then a quantitative study was carried out in order to complement the qualitative one. In order to carry out the quantitative evaluation, the Analytic Network Process was used by using the Super Decision Software.

The Analytic Network Process is known as one of the multi-criteria evaluation methods. Multi-criteria evaluation methods are some of the most widely used methods in all fields of studies. In this method, relationships are rated both horizontally and vertically. This rating means that the importance of options is determined by the importance of criteria, and the importance of criteria is determined by the importance of options. (Bottero et al., 2007)

The Analytic Network Process can be summarized in four steps: model building and converting the question into a network structure, composing binary matrices and determining priority vectors, composing super matrices and turning them into limit super matrices, and choosing the superior alternative (Zebardast, 2010). In model building and converting the question into a network structure, first the desired goal and question and then the criteria and sub-criteria are determined accurately. Then the goal (or goals), criteria, and sub-criteria are organized in a decision-making tree (Mohammadilord, 2009).

In evaluating the ecological function of Darakeh River-valley by the Analytic Network Process, its clusters and nodes are determined in the content construction and spatial layout of landscape nodes. Three clusters of Goal, Index, and Alternatives are depicted in Figure (2) in connection with the Analytic Network Process and in Figure (3) in connection with the study's conceptual model.

**A Case Study of Darakeh River-valley**

Kuhsaran Plan Meeting’s joint statement introduces seven river-valleys as valuable natural substrates for Tehran's urban landscape that could contribute to improving Tehran's environment condition (Naraghi and Mir-fendereski, 2007). Therefore, preserving and maintaining them is of utmost importance. Also, 5 tourist attractions connecting northern Tehran to southern Tehran, chosen from these 7 river-valleys, were mentioned in Tehran's master plan. From the east to the west, these 5 northern-southern tourist attractions are: 1) Darabad-Bibi Shahrbanu, 2) Darband-Ray, 3) Darakeh, 4) Farahzad, and 5) Kan (Figure 2). These river-valleys pass through the tangled structure of the city of Tehran, but the passage of time and the irregular developments of the city of Tehran have plagued them with constructions and have diminished their natural values.

Due to the increasing constructions of the city of Tehran, the true nature of the Darakeh River-valley has been preserved only in some parts of its route. In the past few years, the corridor has witnessed many changes in its spatial construction and its socio-economic entity. In addition to the growth of manmade areas in the north, the formation of informal settlements is also seen in some areas. In this study, first the results of the qualitative assessment of the ecological function of Darakeh River-valley on the spatial scale of Tehran,s landscapes zoning is given (Table 3), and then the quantitative results of the implemented model are analyzed.

**Results**

According to the qualitative and quantitative assessments of the given indicators, the analysis of the ecological conditions of Tehran’s Darakeh River-valley shows similar results. The rating of the indicators and alternatives of the conceptual model of the Analytic Network Process suggests that among the alternatives concerning Tehran's landscapes zoning, Darakeh River-valley’s *“balanced environmental structure”* ranks for the first indicator, and if some of the parameters are improved, river-valley’s ecological network can also achieve its *“sustainable geographical-human function”.* But, in order to achieve the transcendent eco-anthropological living system of Tehran's landscapes zoning, a strategic plan also needs to be established. Three hierarchical strategies include the following:

1. Establishing the network structure of spatial connectivity and integration of Tehran’s river-valleys’ natural areas, with the ability to divide them into land units;

2. Providing the appointed ecological-anthropological goals of Tehran’s river-valleys’ ecological network, with the ability to maintain species diversity and to choose species type; and,

3. Providing the transcendent conditions of both living systems and spatial configuration of Tehran’s landscapes zoning, with the ability to choose priorities for ecological protection and anthropological development of Tehran’s ecological corridors, implementeble in Darakeh River-valley's landscape zoning and other river-valleys’ landscape zonings.