Land Use Planning in the Urban Sensitive Areas Case Study, Farahzad Valley Stream-Tehran

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Extended Abstract

1-Introduction

As an important fundamental issue in urban planning, land use suitability assessment provides important reference for planning, planning management, planning implementation and planning evaluation. Whether at home or abroad, many scholars and planning workers have made in-depth study and explore at the approaches of land suitability assessment, especially in the use of GIS technology. Land use suitability assessment is an important fundamental work in urban planning. Be restricted by technology and means, qualitative analysis methods are wider used in evaluating land use suitability. It is necessary to explore a quantitative evaluation method to provide a reliable basis for in-depth analysis of urban planning and improve the persuasiveness of the decision-making and objectivity and science of the urban planning.

2-Theoretical Bases

Urban valley stream is one of the important factors in making structural and functional evolutions of cities. In these natural corridors, in addition to, permanent or periodic flow of water, visual and natural values, as well as different function/action pattern -in the form of tourism/recreation, economical functions, and even human life- are existed. In theories related to urban sustainable development, optimum utilization of these areas in the framework of sensitive areas and urban vital plans is considered by urban institution. Urban Managers are using a number of programs and policies to guide and control growth in the urban valley streams. These growth management measures include such policies as:

Smart growth programs - includes a range of approaches to contain development by using more efficient and compact urban development patterns that preserve open space and protect environmentally sensitive areas.
Alternative zoning ordinances-These can be used to protect forests, wetlands, floodplains, or environmentally sensitive land. There are several different forms of alternative zoning ordinances like Floating zones, Overlay zones, Cluster development, Incentive zones and Impact fees.

Transferable development rights (TDR)-Under this program, a landowner is assigned rights to develop which cannot be used on sensitive land but can be transferred to other land or sold to other developers.

Purchase of development rights (PDR)-Under this program, landowners can volunteer to sell the development rights to their land to the local government or a nonprofit group while retaining ownership of the land. The current and future owners of the land are restricted from development activities.

Conservation easements-Conservation easements that permanently restrict the use of a particular tract of land can be purchased by local agencies or by private groups.

Priority funding areas (PFA)-Under this program control growth by limiting State support for growth-related projects such as sewer and water systems to locally designated growth areas.

Open-space preservation-Open or green space is defined as agricultural and forestry land in a natural state or land developed only to the extent consistent with the protection of the environment.

3-methodology

The rapid development of IT technology and gradually maturing of GIS technology applications provides the foundation for urban planning from the qualitative analysis to quantitative analysis. Through the evaluation method, we can clearly determine the space relationship of "strict protection - appropriate protection - general use - optimal use - key development" in different policy conditions, so as to provide a solid theoretical foundation and serviceable content for urban planning. In this research, it is tried to use urban sensitive area theory framework; utilizing AHP model, geographic information system (GIS), and conservation-based approach, urban land use planning process in Farahzad’s valley stream is considered. In general, the current study focuses on taking GIS as evaluation tools, but does not make in-depth research at the aspect of data source. On the basis of previous studies, this paper sums up experiences, uses remote sensing technology to broaden data acquisition channels and applies GIS-based Spatial Analysis method to land suitability assessment of Farahzad in Tehran.

4-Discussion

The fast expansion of Tehran during recent years and the increase of urbanization have caused the decrease in natural values and established widespread development plans without environmental considerations. This tendency causes collision of environmental equilibrium in the city, especially in urban sensitive areas. The final results are shown in following map and table. Based on data, urban land use planning in Farahzad area is very important considering current obligations. The result shows that about 77 percent of lands in this valley stream with assessment model applied are located in high degree conservation bound. Therefore, these areas should be unsettled areas and should be replaced to optimum land uses related to their environmental values. Finally, with respect to location results produced from this research, micro and macro policies and guidelines for accessing to valley stream conservation goals are presented. The underlying policy issues need to be addressed by the public as well as elected officials if natural resources in the interface are to be preserved.
5-Conclusion

Natural resource managers can play an important role in raising public awareness of the natural resource and conservation issues in the interface. Too often communities wait until development has begun before attempting to revise their land development plans. By then, emotions are often running high, and anger, divisiveness, and resentment preclude rational discussion about the long-term goals of the community. Because these issues are multifaceted, proactive and flexible land use policies are needed to deal with them.

Keywords: Urban development planning, land use planning, urban sensitive areas, Farahzad’s valley stream

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