URBAN GREENWAYS AS PLANNING STRATEGY

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Abstract—Cities across the world have developed urban greenways as a tool to tackle the problems caused by rapid and unsustainable urbanisation. In many of the countries greenways are used to achieve a number of environmental, economic, and social goals. Greenways are recreational trails that provide functions beyond recreation, such as storm water management, economic development, community development, and aesthetic improvements. However, greenways are not a new idea. The popularity of greenways has grown because greenways fulfil many functions, while bringing numerous benefits to the cities in which they are implemented.

Keywords—Greenways, Recreational trails

I. INTRODUCTION
Urban areas are great magnets to most humans. Indeed, around 2.8 billion people worldwide live in urban areas. Urban areas are the nucleus of economic growth, the major sources of new technology and wealth. However, they also face significant problems: uneven urban development, creation of economic and social 'sink' areas, and environmental decay (urban areas are the major consumers of natural resources and the largest producers of pollution and waste). The massive increase in urbanization and the impact of urban areas on the global environment mean that creating more sustainable urban areas is essential to sustainability at the national and international level.

The rest of the paper is organized as follows. Concept of Greenways and its advantages are explained in section II. Case studies along with analysis are presented in section III. Concluding with recommendations for planning Greenways are given in section IV.

II. CONCEPT OF GREENWAYS

A. Characteristics and functions—
When planned and executed in the right way, urban greenways tie together the environmental, economic, and social equity goals of sustainable development and lead to improved urban resilience. Changing of conditions, conceptions and tendencies lead to change of the concept and scope of greenways. There are five key characteristics for this Greenways – Linear, Linkage, Multifunctional, Consistent and Spatial strategy component of the original image detail (high frequency).

Fig. 1. 5 key characteristics

| Environmental benefits | Economic benefits | Social benefits |
|------------------------|-------------------|----------------|
| Helps to restore and protect the natural environment | Retention and corporate relocation | Can be a means of education |
| Enhance environment quality | Induce positive publicity for business | Enable a better appreciation and awareness of nature and the environment |
| Support local plant and animal community | Enhance the facilities for employees | Provide an alternative transport route |
| Provide wildlife corridors | Stimulate higher productivity | Democratize the public mobility |
| Support | Provide direct | Enhance wellbeing |

Table -1 Benefits of Greenways
biodiversity employment opportunities through contact with nature

Protect waterways and kept unpolluted Attract tourism and enable commercial opportunities Provide visual relief, especially in urbanized areas

Help to reduce flood hazard Improve the overall appeal of a community to prospective new residents Induce healthier lifestyles

Reduce problems of soil erosion and downstream sedimentation Increase real-estate property values Provide access and linkage between natural and cultural sites

Induce a more efficient utilization of land Helps to create tax revenue and reduce public costs Help to preserve monuments and historical buildings

Limit urban growth Cost effective strategy for providing outdoor recreation Enhance sense of community

Table -2 Case studies

| Sl No | Greenways | Location | Length | Year opened |
|-------|------------|----------|--------|-------------|
| 1     | High Line  | New York | 2.33km | 2009        |
| 2     | Lambro river valley | Italy | 17km | 2000 |
| 3     | Multipurpose greenway | Concord | 37km | 2002 |

III. CASE STUDIES AND ANALYSIS

Urban greenways offer numerous benefits to the cities in which they are implemented, but much work goes into the creation of a greenway. Hundreds of greenway trails exist across the world presenting numerous urban greenway examples to study. How cities are planned, funded and implemented Greenways? To get an idea regarding the planning and implementation of Greenways, 3 case studies were studied. The planning processes, implementation, stakeholders involved, levels of coordination, and sources of funding for these three examples were studied.
When designing each greenway network, careful attention must be given to its “look and feel,” so that it is designed appropriately to its specific setting.

3. Paved Trails

The Greenways Plan proposes a combination of paved and unpaved trails, to allow for different types of uses and different types of sites. Paved surfaces can be recommended to be asphalt.

4. Natural Surface Trails

For trails located in a natural setting, or intended for use mostly by people on foot, an unpaved or “soft” trail surface is appropriate. An unpaved surface can be constructed at far lower cost than a paved trail.

5. Amenities

Amenities and features as parking, restrooms, tables and benches, trash receptacles, bike racks, lighting, welcome signage, maps and directional signs, drinking fountains, and vending machines, rent a shop for cycles etc.

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