



HARYANA

# planners newsletter

INSTITUTE OF TOWN PLANNERS, INDIA

No.: 20

April 2019

## From Editor's Desk .....

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Dear members,

I am glad to present the 20th issue of Haryana Planners Newsletter of ITPI-HRC.



The Institute of Town Planners, India - Haryana Regional Chapter, Panchkula had organized one day Seminar on the theme "Urban Traffic and Transport: Challenges and Smart Solutions" on 15.09.2018 and the main focus of the seminar was to understand the complexities of urban transportation and to suggest solutions which are sustainable cost effective, indigenous and environmental friendly.

Another seminar on "Planning and Development of Smart Villages: A Strategy to Manage Rapid Urbanization" held on 15.12.2018 at ITPI-HRC building premises. The presentations were followed by very lively and thought provoking interactive session to emphasize "Smart Village Concept", its existing practices for the transformation of rural areas and also its role in maintaining a balance between rural and urban areas. Further, ITPI-HRC organized a seminar on "Innovative Initiatives in Solid Waste Management in Urban-Rural Scenario" held on 09.03.2019 at Club Nirvana Patio, Nirvana Country, Sector-50, Gurugram, which was widely attended by officials and representatives of RWAs.

I hope the content of newsletter will be helpful in providing updates on the latest developments. I also request to contribute articles/news for publication in the next issue of newsletter.

Research study on "Green Infrastructure" is in advance stage. Regarding that suggestions are also invited for the same and for the next research study to be done in ITPI-HRC

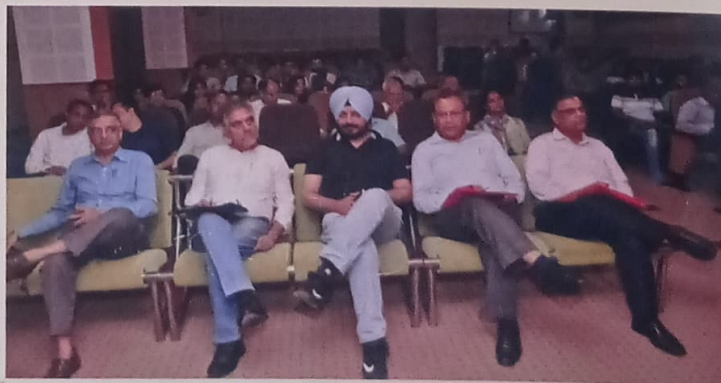
Vijay Kumar Goyal  
Chairman, Publication Committee

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## Seminar on the theme "Urban Traffic and Transport: Challenges and Smart Solutions"

The ITPI-HRC organized a seminar on the theme "Urban Traffic and Transport: Challenges and Smart Solutions" on 15.09.2018 (Saturday). The inaugural session was chaired by Dr. D.S. Meshram, President Emeritus, ITPI, New Delhi. The seminar was attended by more than 80 delegates including Town Planners, Architects, Engineers and other professionals from Haryana, Punjab, Chandigarh, Himachal Pradesh, New Delhi and Rajasthan.



Session in Progress at ITPI-HRC

Sh. Sudhir Chauhan, the Chairman (HRC) welcomed the delegates and apprised the forgoing activities such as workshops, conferences, seminars, newsletters, publications and research activities in ITPI-HRC. The newsletter of HRC was also released by Sh. S.D. Saini, Vice President, ITPI on the occasion. Presentations were made in the seminar by various experts on the subject

namely Sh. Jitendra Wadhvani, Associate Vice President, Ernst & Young, Sh. Ashwani Luthra, Professor, Department of Guru Ramdas School of Planning, Guru Nanak Dev University, Amritsar and Sh. Pallav Mukherji, Architect, Chandigarh. The Vote of Thanks was extended by Sh. Vijay Kumar, Secretary ITPI-HRC.



*Inauguration of the Seminar*



*Release of HRC Newsletter*

## Recommendations of Seminar

The findings and recommendations of the Seminar:-

- As India is becoming urbanized, urban areas play a critical role in economic growth. City efficiency largely depends upon the effectiveness of its transport systems. They are faced with severe congestion, deteriorating air quality and an increasing incidence of road accidents. This is adversely impacting the health of the people and constraining economic growth.
- Building flyovers and road widening very often leads to increase in road traffic and congestion. Poor transport systems at national and local level obstructs economic growth and development. Thus, transport is backbone of country's development.
- The approach has to be more comprehensive, and multi-modal, encompassing both supply side and demand side measures. It has to go beyond a mere building of facilities to understanding linkages with land use planning, human behaviour, affordability, environment, etc. Thus, a comprehensive or integrated approach is required.
- One of the considerations is while preparing the Perspective Plan for City or Comprehensive Vision Plan these neeti's should be considered i.e. Raj-neeti, Ran-neeti, Jan-neeti, Vikas-neeti, Arth-neeti, Samaj-neeti and Kalyan-neeti.
- Most master plans for cities across the country are "real estate centric" and devoid of a holistic approach that would include Landuse-Transportation Integration, Transit Oriented Development Corridor Planning and World Class Transport Option.
- Public transport should be promoted by making public transport system efficient, reliable, safer and comfortable in comparison to private vehicle, in order to optimally utilize the resources.
- Exclusive Provisions for NMTs without copying the concepts as prevalent in the western world. Along with considering the barrier free and safer mobility for Women, Children, Elders and Physically Challenged.
- Smart solutions such as Peripheral Parking Scheme, Smart Parking, Staggering of Office Hours (Work Rescheduling), Exclusive Bus Lanes, Reversible lanes and other Smart Travel Demand Management such as Vehicle quota system, 'Off-peak Car Scheme' and 'Week-end Car Scheme', Curb 'double transfer' of private vehicles, High 'road tax', 'excise duty' and 'cess' on petrol or diesel and Synchronization of signals should be taken under consideration while planning. Road Pricing, Congestion Tax and Toll Tax should be opted to manage the congestion.
- It is our view that the implementation of the above relevant points would go a long way in solving the delicate issues related to the urban transportation.

## Seminar on the theme "Planning and Development of Smart Villages: A Strategy to Manage Rapid Urbanization"

The ITPI-HRC organized a seminar on the theme "Planning and Development of Smart Villages: A Strategy to Manage Rapid Urbanization" on 15.12.2018 (Saturday). The seminar was inaugurated by Sh. R.P. Singh, Retd. CTP and Former



**Session in Progress at ITPI-HRC**

Vice-President, ITPI, New Delhi. It was attended by more than 40 delegates including Town Planners, Architects, Engineers and Professors and Assistant Professors from

large population. The population residing in the rural areas needs the same status of life as enjoyed by people living in sub-urban and urban areas. The Government has put solemn endeavor through diverse schemes for enhancing livelihood of rural masses. So, the main aim is to smarten the villages by offering basic facilities, education, employment generation activities, technology etc. that may abridge the migration of flyaway rural population in urban areas.

The diary and Calendar of HRC was also released by Sh. R.P. Singh, Former Vice President, ITPI on the occasion. The Research Team of ITPI-HRC gave a presentation on the theme of the seminar emphasizing the problems being faced in the rural areas resulting into migration to the urban areas. The list of strategies for Smart Village were also the part of the presentation. Exhibition on the theme "Village Clusters and Block Development Plan Gannaur, District Sonipat" were also displayed by the students of Architecture and Urban Planning Department, DCRUST, Murthal. Speaking on the occasion Sh. R.P. Singh, Retd. Chief Town Planner, Haryana and former Vice- President, ITPI, New Delhi shared his



**Inauguration of the Seminar**

Deenbandhu Chhotu Ram University of Science and Technology (DCRUST), Murthal and Chitkara School of Architecture and Planning, Rajpura Campus, Punjab.



**Release of HRC Diary and Calendar**



**Inauguration of Exhibition**

experience and also highlighted the emerging need of rural planning in India.

Sh. Sudhir Singh Chauhan, Chairman, HRC-ITPI welcomed and briefed the participants about objectives of conducting the seminar. He focused the attention on the overall development of the country that must be given to the grassroots level, which means to have focus on the development of rural areas. According to 2011 census, component of rural population was 68.84%, as compared to 31.16% in urban areas. There is large scale migration of the people from rural areas to urban areas, which has its own risk parameters on the urban areas and still there are many villages in India with



**Presentation by Research Team, ITPI-HRC**

The technical presentations were made by students of DCRUST, Murthal on "Village Clusters and Block Development Plan Gannaur, District Sonipat" under the guidance of Prof. Vijay Kumar Sharma, faculty of Architecture and Urban Planning, DCRUST, Murthal. Sh. V.K Goyal, Chief Coordinator Planner (NCR), Haryana, Panchkula also presented on the theme "Smart Village: Managing



**Presentation by Students of DCRUST, Murthal**

Urbanization beyond Urban Areas". He discussed about the current trend of migration from rural to urban areas in Indian context, Urbanization and controlled area status in Haryana and initiatives required for Smart village. The Vote of Thanks was extended by Sh. Vijay Kumar, Secretary ITPI-HRC.

# Recommendations of Seminar

Following are the findings and recommendations of the Seminar:-

- Introduction of Advanced ICT application to ensure Source & Sample Authorization, Process Automation, Farm level Data Capture & upload, real – Time update Digital Soil MAP, Mobile Based Soil solutions and Farmers friendly SHC.
- Interventions of Smart & Agro Commerce and Smart Agriculture which would act as a platform for farmers (online trading and e-commerce) to sell their crops to consumer directly and to buy seeds and implements.
- To save cost of electricity solar powered, mobile operated pumps, use of Solar or Wind Power should be installed. Promoting the use of drones and robots which improves data collection process and helps in wireless monitoring and control.
- Introduction of Organic Farming would be helpful in reducing exposure to pesticides with an organic diet, Fights Global Warming, Efficient use of soil nutrients and Self-reliance in production inputs. Introduction of poultry, fishery, piggery, horticulture, sericulture, floriculture must be done to enhance the rural economy.
- Industries such as Khadi village and Cottage, Agro processing industries, Small scale confectionaries, Skill Development Centres, should be encouraged in every village to promote employment opportunities especially for women's in order to enhance the rural economy. Smart classes through Projectors, audio visual aid, computer labs and online education to make the learning an enjoyable experience for students.
- Standardization/Specification of Rural Planning Norms, Provision of Mixed land use and multipurpose site, Land to be taken through Land Pooling Schemes or Panchayat Lands if available.
- Energy Conservation Methods such as Electricity Generation from Urine, waste should be introduced in the villages. Introduction of Water purification and conservation techniques such as Reverse Osmosis (RO) and Rain Water Harvesting to remove impurities from drinking water.
- It is our view that the implementation of the above relevant points would go a long way for the development of Smart Village.

## Seminar on the theme “Innovative Initiatives in Solid Waste Management in Urban-Rural Scenario”



*Session in Progress at Club Nirvana Patio, Gurugram*

The ITPI-HRC organized a seminar on the theme “Innovative Initiatives in Solid Waste Management in Urban-Rural Scenario” on 9th March, 2019 (Saturday) at Club Nirvana Patio, Nirvana Country, Sector-50, Gurugram.

The seminar was inaugurated by Guest of Honor, Sh. Yashpal, Commissioner, Municipal Corporation, Gurugram and Chief Guest Dr. D.S. Meshram, President Emeritus, ITPI, New Delhi. Speaking on the occasion, Sh. Yashpal emphasized on the issues directly related to MC, Gurugram. He also throws some light on the new rules and regulations that are



incorporated in solid waste management and also, highlighted on the provisions that should be undertaken for the landfill sites. He has also talked about the initiatives being taken by the Municipal Corporation, Gurugram in the last few years.

Dr D.S Meshram emphasized on the betterment charges that need to be imposed in order to manage solid waste in an efficient manner. He also acknowledged total solid waste generation which is approximately 1, 41,064 TPD and collected waste is approximately 1, 27,531 TPD almost 90%

and measures that need to be taken by both the government and community/public. Sh. Sudhir Chauhan, Chairman, ITPI-HRC welcomed and briefed the participants about the aims and objectives of ITPI HRC and the relevance of the topic in



*Inauguration of the Seminar*

the present day context. Sh. S.D. Saini, Council member and ex-vice president of ITPI-Delhi also addressed about the seminar topic followed by the presentation given by Research Team of ITPI-HRC. The technical session was chaired by Sh. Rajveer Singh, Ex-Chief Town Planner, Haryana. Presentations were given by various eminent speakers' namely; Sh. Suneel Pandey, Director, Environment

and Waste Management, TERI University. His topic of presentation was "Effective waste management leading to circular economy"; Sh. S.P Singh, IAS, Chief Advisor and have also worked in one of the solid waste management firm named Eco-Green. His topic of presentation was on "Practical Aspects of Solid Waste Management"; Dr. Lakshmi Raghupathy, Visiting professor, TERI University. Her topic of presentation was "Sustainable Solid Waste Management in Urban Agglomerations" and Dr. Shyamala Mani, Professor, National Institute of Urban Affairs (NIUA), emphasised on the topic "Innovations in Solid Waste Management in Urban Areas". The seminar ended with the interactive session including discussion and suggestions given by the audience presented in the seminar.

The seminar was attended by more than 50 delegates including Town Planners, Architects, Engineers and other professionals from Haryana, Punjab, Chandigarh, New-Delhi. Vote of thanks was extended by Sh. Y.M. Mansuri, Former Chief Town Planner, Haryana.

## Recommendations of Seminar

Following are the findings and recommendations of the Seminar:-

- Installation of Biomethanation plants can be done to process the organic waste generated from the vegetable market, and hotels and the methane gas so generated will be utilized to generate electricity.
- Zero waste homes and Door to door collection of source separated waste and decentralized composting of wet waste for newly developing areas.
- Make provision for separate collection of dry, wet, sanitary and Hazardous waste at source. Use of new equipment's and more rational methods for managing and collection of solid waste.
- Sustained education and capacity building through community awareness and motivation programmes be launched to ensure collection of segregated waste and keep it segregated.
- Conversion of source separated dry waste into useful products & earning revenue from sales and marketing.

### Establish Ecofriendly Recycling Units (ERU)

- Consider non-burn options for End of Life Solutions for Non-biodegradables after Reuse and Recycling
- Waste water can be treated by decentralized systems and the treated water can be used for agriculture, aquaculture and water recharge in dry zones.
- It has been observed that Public-private partnership has proven to be one of the biggest achievements for a better solid waste management system. There are plenty of opportunities for ULBs and Corporates in Waste Management from Decentralized to Centralized, from investment to CSR, from collection to treatment and from empathy to engagement.
- Lastly, it is suggested that working alongside communities, local bodies and achieving compliance is the best road forward for Swachh Bharat. The implementation of the above relevant points would go a long way for a proper Solid waste management system.

## Understanding Green Infrastructure: It's Planning Approaches and Strategies.

**\*By Research Team-ITPI-HRC**

Sh. Anil Kashyap-Research Guide, Ms. Gurpreet Kaur-Research Officer, Ms. Vijeta Nigam-Research Officer

### Introduction

Green infrastructure is broadly referred as an interconnected network of natural areas and other open spaces that helps in conservation of natural ecosystem principles and its functions endure clean air and water and provide a wide

range of benefits to human population and their surroundings. In this context, it is an ecological framework for protecting and restoring our natural life-support system that includes environmental, social, and economic aspects. It mainly emphasis on open and green spaces importance and differ from conventional approaches to open space planning

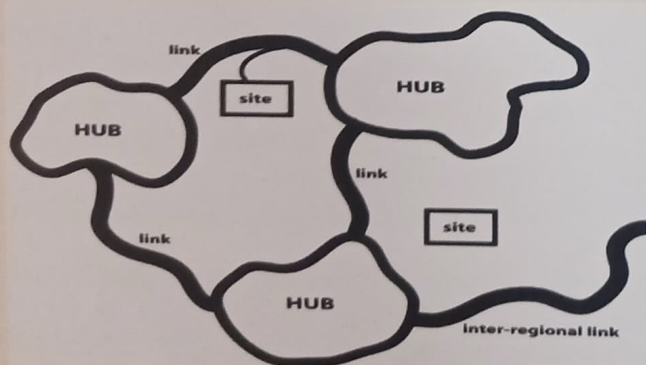


*Intersection of economic, environment, and quality of life for Green Infrastructure development.*

because it focuses on conservation values and actions in concert with land development, growth management and built infrastructure planning. Green infrastructure helps communities recognize and prioritize conservation prospects and plan development in ways that enhance the use of land to meet the needs of people.

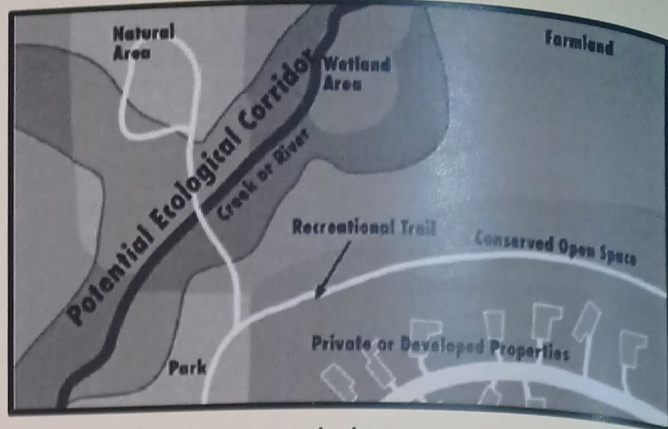
As a concept, the planning and management of a green infrastructure network can monitor the creation of a system of open space hubs and links that support conservation and associated outdoor recreational spaces, connect both existing and future green space resources, and helps to “fill in” the gaps. In addition to this, it can be used to guide future growth and future land development and land conservation decisions to accommodate population growth, protect and preserve community assets and natural resources.

Green infrastructure methodology facilitates orderly and planned conservation activities, value to project, and provides predictability for both conservationists and



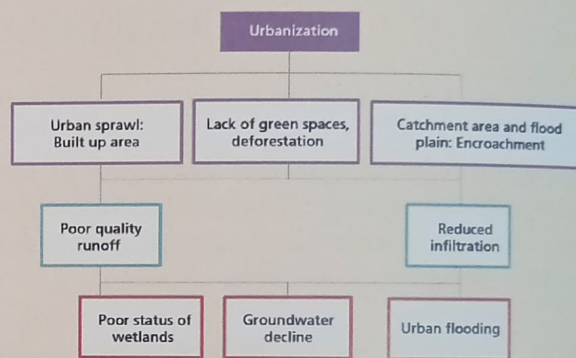
*Integration of existing and future open space hubs and links.*

developers. It uses planning, design, and implementation approaches similar to those used for roads, water management systems and other community support facilities. The approach can be applied at multiple scales e.g., across landscapes, watersheds, regions, jurisdictions) and help move communities beyond jurisdictional boundaries.



*Green infrastructure helps communities plan for land conservation and land development in a way that optimizes land use to meet the needs of nature and people. (Michigan)*

Green infrastructure is a cost-effective, resilient approach and provides many community benefits. While single-purpose gray storm water infrastructure—conventional piped drainage and water treatment systems is designed to move urban storm water away from the built environment,



Source: CSE, 2017

**Need for Green Infrastructure Development.**

green infrastructure reduces and treats storm water at its source while delivering environmental, social, and economic benefits.

## Need for Green infrastructure

Over the past decades, growth has sprung beyond cities and older suburbs into many areas that were once rural. Increasing development has converted farms and forests to other uses thus resulting in Urban sprawl. Land consumption is accelerated at a faster rate ever than before leading to fragmentation of open land which is the primary challenge that our nation is facing. In various metropolitan areas, green spaces are disappearing rapidly. Rural communities are also affected by development, not only this but human modification of land has created fragmented development patterns that endanger native plant and wildlife communities and associated ecological functions and processes. Studies show that farming generates substantially higher revenue than the number of public services they require. Residential development has the opposite effect. Urban sprawl and the inefficient use of land and resources require communities to deliver services across a larger geographic area. Because developments and buildings are spread further apart, sprawl stretches municipal services, resulting in both ecological imbalance and higher taxes.

Green infrastructure is a provider of a number of ecological, economic and social benefits by considering spatial and planning policy through a systematic approach that supports the historical context of a space. They propose spaces that have multi-functional benefits for a wide range of demographic groups and can be located in all areas of the urban-rural environment.

### Green Infrastructure: Planning Approaches

It should be the first step in the land use planning and design process. It should also be coordinated with planning for gray infrastructure-roads, bike trails, water, electric, telecommunication and other essential community support systems. Planning and design integration should connect the two in a more effective, economic and sustainable network. Initiatives of green infrastructure should use approaches similar to those used for the planning, design and financing of built infrastructure. Green infrastructure should be:

**Designed holistically-** It should work like our transportation system which should be designed in such a way that it links diverse green elements into a system that functions as a whole.

**Planned comprehensively-** Green space system needs to be planned comprehensively to provide ecological, social and economic benefits, functions and values like our electric power and telecommunication system.

**Laid out strategically-** Green space system need to be laid out strategically to cross multiple jurisdictions and incorporate green space elements at each level of government. Like our roads and water systems.

**Planned and implemented publicly-** Like our built infrastructure systems, our green infrastructure systems should be planned and implemented with the involvement of the people, including community organizations or groups and private property owners.

**Grounded in the principles and practices of diverse profession-** Like the design and planning of our transportation, water, electrical and phone systems, green space systems should build on the knowledge of professional restraints such as landscape ecology, urban and regional planning, and landscape architecture.

**Funded up-front-** Like other infrastructure systems, our green space systems need to be funded as a main public investment. In other words, green infrastructure should be funded in advance with other essential services, rather than with money that is ended after all other services have been provided.

### Strategies for Green Growth

Green Infrastructure or blue-green infrastructure is a web providing the “ingredients” for solving urban and climatic challenges by building with nature.

#### 1. Urban Ecosystem and Biodiversity Sector and Green Growth

Biodiversity is the term used to describe the variety of life found on earth and all of the natural processes. This includes

ecosystems, genetic and cultural diversity, and the connections between these and all species. Urban ecosystems and biodiversity are important as a measure of quality of life in urban areas.

- **Document the existing status of environment and biodiversity in the city** (through Involvement of schools, citizens and private parties in this exercise and carry out awareness activities).



**Green Infrastructure components for biodiversity enhancement.**

- **Declare a local policy and include in the Master Planning process** (through a mandatory three year review of the status of environment and biodiversity. Introduce environmental resource budgeting tools such as Eco Budget, developed by ICLEI – Local governments for Sustainability).
- **Develop a plan** (for maintaining the quality of the environment and conserving local biodiversity in the city by including conservation, greening, and pollution reduction and treatment projects).
- **Involve the community** (to protect local biodiversity as a part of the city plan. Seek national government funding through the biodiversity action plans for community engagement related initiatives).
- **Promote urban agriculture, green public spaces, urban forestry, river and lake conservation, plantation drives, and green roofs in the city** (by involving private partners and providing incentives to citizens).

#### 2. Urban Energy Sector and Green Growth

Cities account for only 2.35% of India's land area they account for about 80% of the country's electricity consumption. Energy in the form of electricity, oil and gas is an inescapable necessity to enable urban infrastructure development, be it water supply, sewerage network, transportation, construction, manufacturing, information and communication technology (ICT) or provision of social infrastructure to enhance quality of life.



*Promoting use of Solar Energy System.*

- **Promote energy audits and energy performance standards:** A city should ensure optimal energy use by promoting periodic energy audits for key sectors/energy end users to help establish their baseline energy consumption. The promotion can be achieved through mandatory regulations or by offering fiscal incentives.
- **Promote EE appliances and technologies:** EE appliances should be promoted in commercial establishments, residential & commercial buildings, industries, Government/institutional buildings, municipal facilities, educational campuses, low income housing schemes, slum settlement to reduce energy demand in the city. This could be achieved through incentive schemes, policy mandates integrated in building by-laws/building approval process, appliance retrofit programs.
- **Promote green energy systems:** Incentive schemes and mandatory regulations can help promote small scale RE applications such as solar water heaters, solar cookers, solar PV systems, small wind turbines, solar lighting, solar hoardings across major building/land use types as applicable.
- **Promote clean green fuels:** Use of clean fuels such as natural gas to meet thermal energy demand can be promoted through enabling fiscal benefits, improved infrastructure, fast track clearances etc. Improved cook stoves and biogas plants should be promoted in cities where significant biomass potential exists.
- **Incorporate urban energy into city Master Planning process:** The city should stress on incorporating urban energy into the overall urban development/Master Planning process and ensure its integration into infrastructure, services and physical form at the urban scale.



*Promoting Solar Led street lights*

### 3. Urban Transport Sector and Green Growth

Transport is the result of the need to move people, goods and services from one location to another. This need for mobility is a result of improvement in land use, infrastructure and services but it often turns into increased vehicle population, traffic, pollution etc. Rapid growth needs to be supported by an efficient, reliable and safe transport system to be green in the long term.

- **Set up a well-established and reliable public transport system,** this could include metro rail, mono rail, BRT, Lite BRT, Bus system, minibus system, trams, rope ways system, boat-jetty network or a combination of them depending on their feasibility.
- **Ensure multimodal integration** while developing transport plans and projects. They should ensure that networks are completed using multimodal integration and that all existing modes are considered and included when planning for a new system. Information and telecommunications systems should be used to support this integration.
- **Transit Oriented Development principles,** integrating land use and transport, to ensure that vehicular miles traveled are minimized.
- **Promote clean fuel based vehicles,** such as CNG, hybrid, electric, etc., by offering subsidies or providing better infrastructure.
- **Promote Non-motorized transport** and offer a good network of footpaths and good infrastructure to enable safe cycling and other NMT modes.
- **Restrict polluting vehicles in certain areas,** such as city centres, squares, market places, heritage and environmental precincts by charging extremely high parking/stopping/entry fees.

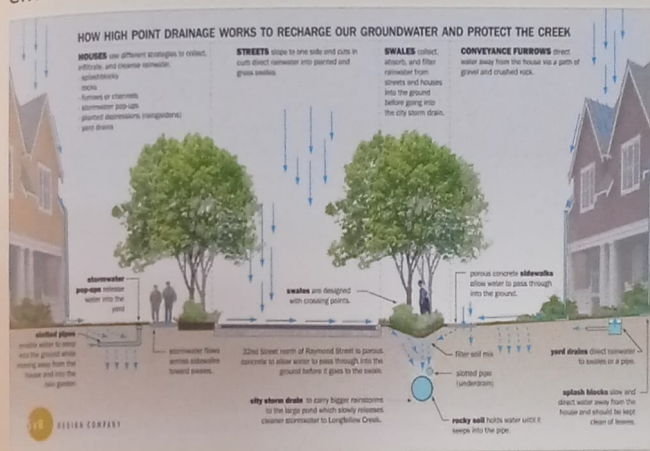


*Promoting Sustainable transport.*

- **Organize parking of private vehicles** applying differential parking fees keeping in mind local land prices and how they want flow of private vehicles to be maintained in certain areas. This can also be done by charging one time standard fee from all households depending on the specification of the car and numbers of owned.

#### 4. Urban Water and Sanitation Sector and Green Growth

The Urban Water and Sanitation Sector include municipal services such as supply of water, and collection and treatment of waste water and faecal sludge. This includes the provision and operation of facilities to ensure that proper quantity and quality of water is delivered to cities and the sewage discharged from urban communities is properly collected, transported, and treated to the required degree and disposed-off/reused without causing any health or environmental problems.



#### Integrated Urban Water Resource Management

##### Undertake Integrated Urban Water Resource Management:

- Efficient and sustainable management of water resources with reduced losses, management of basins and natural drains to prevent development/encroachments and flash flood situations, and exploring alternative sources of water, like runoff through rainwater harvesting and reuse and recycling of wastewater.
- Integration of plans/schemes for water, wastewater and drainage at the institutional level is required.

##### Promote decentralized green solutions:

- Household or community scale low cost decentralized or on-site technologies such as DEWATS and waterless toilets should be promoted in poor settlements or in areas with low population where centralized systems are not feasible.
- Small scale decentralized water and wastewater treatment systems can be located in catchments areas to provide safe drinking water and ensure safe disposal of wastewater and faecal sludge. Such systems can be integrated into the centralized system at a later stage.

##### Promote water efficiency:

- Through metering of connections and differential volumetric tariffs by enabling frameworks such as local metering policies and guidelines.

- Efficiencies in urban water systems can be improved through the use of technologies such as GIS and by undertaking periodic water audits and leakage mapping exercises.
- Water efficient devices such as low flush toilets and low flow shower heads/faucets can be promoted in buildings through incentives schemes, mandates and retrofit programs.
- Enforcing water use standards and offering incentives for water intensive sectors can help to promote efficient water use.

##### Promote rainwater harvesting and restrict groundwater use:

- Rainwater harvesting systems should be promoted to conserve freshwater resources, augment depleting groundwater reserves and counter frequent incidences of flooding.
- Strict enforcement of rainwater harvesting bye laws based on local conditions can boost deployment of rooftop harvesting systems in buildings.
- Rainwater harvesting structures or recharge wells can be mandated for certain land use types as feasible.
- Hydrological modeling and flood monitoring can help identify appropriate locations for RWH systems in the vicinity of vulnerable settlements.

##### Promote recycling and reuse of wastewater:

- i. Help reduce freshwater demand and generate by-products, like biogas energy and manure.
- ii. Enforcement of bye laws/mandates and fiscal incentives can promote wastewater recycling and reuse in certain land use/building types for industrial uses, landscape irrigation, agricultural irrigation, use in fountains and fire protection.
- iii. This can be supported by quality standards and guidelines developed for wastewater reuse at the local level.

##### Encourage private engagement and partnerships:

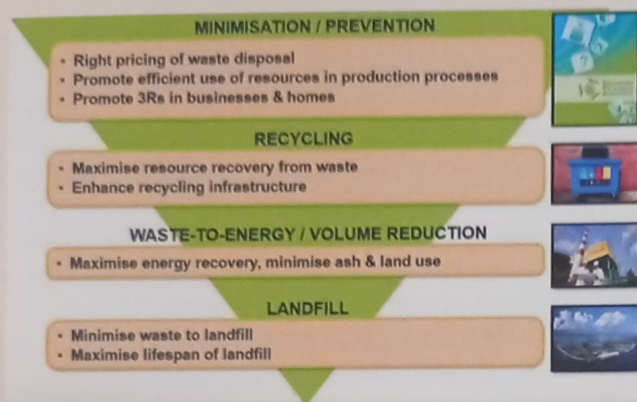
- Private sector engagement should be promoted by putting in place local programs to leverage CSR initiatives for provision of decentralized green solutions.
- City governments should put in place enabling frameworks such as PPP procedures or guidelines and look to partner with private sector across aspects of design, planning, construction, O&M, and billing for water and sanitation to help bridge the gap in terms of technical, technological, financial and human resource capacity.

##### Promote community awareness and participation:

- Through publicity campaigns, demonstration programs, pilot projects, workshops, school sanitation ratings etc.
- Awareness can be the first step towards involving communities in planning, implementation and management of initiatives which contribute to strengthening ownership, addressing cultural/behavioral barriers, gaining feedback from direct beneficiary.

## 5. Urban Solid Waste Management Sector and Green Growth

Even with the most advanced regulations and policies, solid waste management is a sector that remains not well addressed in Indian cities and has considerable negative impacts on local environment and health. As cities grow, with rising urban population and per capita income, the waste produced in Indian cities will only increase. Looking at greener options for waste management in urban areas will help cities to reduce local impacts and grow in a green way.



*Solid waste management hierarchy*

### Undertake integrated SWM plans/projects:

- Promoting ISWM activities benefits cities with cleaner and safe neighborhoods, higher resource use efficiency, resource augmenting, and savings in waste management costs due to reduced levels of final waste for disposal, as well as better business opportunities and economic growth.
- ISWM follows a strategic approach to sustainable management of solid waste covering all sources and all aspects, such as generation, segregation, transfer, sorting, treatment, recovery and disposal in an integrated manner, with an emphasis on maximizing resource use efficiency.

### Promote segregation at source:

- Segregation at source is the initial activity involved in the entire SWM process.
- This initiative has to be promoted in all cities initially on a pilot basis and then extended to the whole city area, bringing advantages such as reduced impact on the waste collection and transportation, reduced dependency on natural resources and raw materials with excellence in reuse and recycling, and appropriate waste transported to the final disposal site.
- Door to door collection and segregation at source can be improved by involving Community Based Organizations (CBOs), Non-Governmental Organizations (NGOs), Residents Welfare Associations (RWAs), Rag pickers, etc.

### Local/Community level composting plants and waste processing plants:

- Entertaining local composting at ward levels and mandating the composting plants in large townships,

huge commercial complexes and hotels and restaurants reduces the amount of waste generated and benefits municipal corporations, saving time and money.

- The authorities should involve private actors to educate the public on selecting the appropriate composting technologies for deriving benefits from the end product. Local/Community level waste processing plants have to be initiated for collecting recyclables.

### Creating wide-spread awareness on solid waste and its management:

- Several awareness activities have to be taken up by urban local bodies to educate the public on advantages and consequences of proper and poor SWM.
- It is important to educate municipal staff with inspirational and successful case studies from around the world, so that they can in turn raise awareness among the general public, using a variety of communication techniques.
- Raising awareness can result in increased use of city waste collection services by the public and private sectors, funding for waste management from local elected officials, adoption and enforcement of local waste management policies by local elected officials and public participation in organic diversion and recycling programs.

### Promoting Private Sector Engagement:

- It is necessary for the urban local bodies to engage the private sector and change their role of being a “service provider” to that of a “facilitator of services”.
- Private sector participation brings finances for the modernization of SWM services, helps in providing efficient MSW management services and supports ULBs by promoting cost savings through the rising productivity of manpower and machinery.
- Additional advantages of private sector participation include updated access to technology and expertise, higher levels of efficiency and accountability, focus on customer satisfaction, and access to finances for new investments.

Green infrastructure plans can create a framework for future growth while also ensuring that significant natural resources will be preserved for future generations. It can even reduce opposition to new development by assuring civic groups and environmental organizations that growth will occur only within a framework of expanded conservation and open space lands. The list of strategies is based on the understanding that no vision can be realized without the policy, decision-makers, citizens' involvement and partnership from private sector in evaluating options and deciding where, when and to what extent Green Infrastructure practices should become part of future planning and development (and redevelopment) within communities.

## News Updates

- Research study on "Green Infrastructure" has been started and is on process under the guidance of Dr. Anil Kashyap, HOD, Geography and Environmental Management, University of West England, Bristol.
- Building maintenance work such as wooden work in the auditorium and kitchen, Replacement of lights in building has been completed in the ITPI- HRC building.



**Interactive Session with Faculty SPA, Delhi**

- Small Interactive session with SPA students and Faculty regarding "Preparation of Regional Plan – Chandigarh, Mohali & Panchkula Tri-city".
- Lightening of Diyas/Candles was done by ITPI-HRC members along with their families on the eve of Diwali at HRC premises. Emphasis was on to create awareness and promote homemade diyas instead of Chinese lightening.
- In the 67th National Town and Country Planners Congress, Sh. Nadim Akhtar, CTP, HSVP has presented a

paper on the theme "Strategy and Alternatives of Land Acquisition (A Partnership Model for Haryana)"

- Research study on "Preparation of Development Plans – Case study of Shahabad" is in advance stage. Comparative analysis of Development/ Master Plans of various cities of India will be done to prepare universal guidelines for the formation of Development Plans.



**Diwali Celebration at ITPI-HRC**

- National Flag was hoisted on the occasion of Republic Day by members at ITPI-HRC building on 26th January, 2019.
- Seminar held on the theme "Innovative Initiatives in Solid Waste Management in Urban-Rural Scenario" on 9th March, 2019 (Saturday) at Club Nirvana Patio, Nirvana Country, Sector-50, Gurugram.
- The AGM and elections of new executive committee are likely to be held on 13.04.2019.

## Chairman's Desk

*Esteemed members,*

*I am honored to express my deep gratitude to all the members of ITPI-HRC for providing me the opportunity to serve as the chairman of this dignified body. I shall try my best to reenergize this professional institution by arranging seminars, workshops and conferences on relevant themes and other e-initiatives.*



*I shall be making the best efforts to sustain the dignity of ITPI-HRC institute. Many activities have been initiated to foster the planning profession such as, ITPI-HRC; Panchkula organized a seminar on "Urban Traffic and Transport: Challenges and Smart Solutions" on 15.09.2018 and "Planning and Development of Smart Villages: A Strategy to Manage Rapid Urbanization" on 15.12.2018 and seminar on "Innovative Initiatives in Solid Waste Management in Urban-Rural Scenario" held on 09.03.2019 "to facilitate the*

*town planners and practitioners to achieve a balanced and healthy urban development.*

*To enhance research activities, various research topics have been selected and research is being done on the same. To augment the quality of research work, a review committee has been constituted.*

*Various committees constituted this year such as Executive Committee, Building Committee, Professional and Library Committee are doing a commendable job. The Publication Committee also deserves special appreciation to bring out this newsletter.*

*I also call upon the members to come forward to guide research studies in ITPI-HRC as a full time guide or at least share their views/ experiences on the research topic. ITPI-HRC shall suitably reward the full time guide(s).*

**Sudhir Chauhan**  
Chairman, ITPI-HRC

## Executive Members of ITPI-HRC for the Year 2018-19

1	Sh. Sudhir Singh Chauhan	Chairman	9910107998
2	Sh. Vijay Kumar	Secretary	9316047083
3	Sh. Sunil Kumar	Treasurer	9888977318
4	Sh. V.K. Goyal	Executive Member	9915805621
5	Col. Satish Kumar	Executive Member	9914205835
6	Sh. Rajesh Kaushik	Auditor	9467792871
7	Sh. Nadim Akhtar	Ex-officio Chairman	9417215786
8	Sh. Vikram Kumar	Ex-officio Secretary	7696034340
9	Sh. R.P. Singh	Special Invitee	9896458100
10	Sh. P.P. Singh	Special Invitee	9316128594
11	Sh. Devendra Nimbokar	Special Invitee	9803030952

## Committee of ITPI-HRC for the Year 2018-19

### (a) Building Committee:

- (i) Sh. Devendra Nimbokar, Convener
- (ii) Sh. Devender Pal, Member
- (iii) Sh. Vikram Kumar, Member
- (iv) Mrs. Shivani, Member

### (c) Professional Committee:

- (i) Sh. S.D. Saini, Convener,
- (ii) Sh. Raj Vir Singh, Member
- (iii) Sh. Lalit Kumar, Member
- (iv) Sh. Ravish Jani, Member

### (b) Publication Committee:

- (i) Sh. V.K. Goyal, Convener
- (ii) Sh. Nadim Akhtar, Member
- (iii) Sh. P.P. Singh, Member
- (iv) Mrs. Savita Jindal, Member

### (d) Library Committee:

- (i) Sh. Rajesh Kaushik, Convener
- (ii) Col. Satish Kumar, Member
- (iii) Mrs. Babita Gupta, Member
- (iv) Sh. Satish Kumar, Member

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