



# planners newsletter

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Chairman Editorial Board **S.S. Dalal**

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## 52<sup>ND</sup> NATIONAL TOWN & COUNTRY PLANNERS CONGRESS

### Development of Hill Capitals: Shimla- Vision 2025

19th – 21st December 2003, at Shimla

Inaugurating the 52<sup>nd</sup> National Town and Country Planners Congress, Major Vijai Singh Mankotia, Hon'ble Minister of Tourism and Civil Aviation, Government of Himachal Pradesh opined that Shimla is a conflict zone between high intensity and low intensity political leaders, bureaucrats, land mafia, environmentalist, non-environmentalists, rationalists and non-rationalists and called every citizen of Shimla to act as pressure group. Quoting the example of efforts of Government of Rajasthan towards conservation and restoration of verandahs of the old city of Jaipur which could be achieved due to strong political

and administrative will he suggested to take pressing action on similar lines to restore the glory of Shimla. He asked, if Shimla, is our soul, why we have allowed this soul to die? He also pointed out as to why we have surrendered the green and open spaces in core areas of Shimla for building activities. Why are we allowing the burning of our history due to the fire which is taking place and destroying buildings of heritage importance? Tourist visit Shimla town to enjoy natural beauty scenic excellence of the town which is full of natural and manmade heritage features. But after visit they carry the impression that Shimla is full of concrete multistoried buildings, littered with solid waste, choked sewers and drains, city on the verge of sinking and collapsing, city with traffic snarls and bottlenecks



Shri Virbhadra Singh, Hon'ble Chief Minister of Himachal Pradesh and Major Vijai Singh Mankotia, Hon'ble Minister of Tourism and Civil Aviation Himachal Pradesh on the dias with Shri. D.S. Meshram, President ITPI (on extreme left) and Shri S.S. Dalal, Vice President ITPI (on extreme right)

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with lack of parking spaces and terminal facilities, etc.

Though the growth of population of Shimla in absolute number does not appear to be mind-boggling figure, if compared with any capital city in the plain, nonetheless, in view of its locations in the mountainous areas, it has been experiencing various problems e.g. (i) over concentration of activities (ii) over crowding in the central part (iii) traffic and parking problems, (iv) unauthorized construction (v) deforestation, (vi) landslides (vii) sinking in many areas, (viii) shortage of infrastructure facilities, (ix) lack of tourist infrastructure, (x) scanty care for natural and built heritage.

This along with heavy influx of rural population in search of job opportunities from the various parts of the state and tourists from the scorched Indo-Gangetic plains, because of its salubrious climate, created strain on the available infrastructure. Large scale building



Major Vijai Singh Mankotia, Hon'ble Minister of Tourism and Civil Aviation Himachal Pradesh, lighting the lamp during inauguration.

activities associated with development of residential, commercial, institutional, workshop, garages, godowns, industries, hotels etc, without due consideration to fragile and sensitive ecosystems of the area and its past built heritage, etc, have done irreparable damaged to Shimla.

The adjoining spurs are attracting haphazard growth, lack of amenities, poor accessibility, etc. Many buildings are unauthorized in nature. The original style of hill architecture with low height, sloppy roofs and bungalow type houses with front gardens / lawns are giving way to multi-storied concrete structure without adequate provisions of facilities and matching infrastructure requirements.

In the prevailing scenario, developers / builders are taking full advantage of commercial potentials of land due to ever increasing tourist population along with their demand for required infrastructure. Building blocks in matchbox style, without any semblance with the ethos of hill architecture and often in total disregard to the fragility of environment are increasing day by day. Many office blocks, hotels, commercial establishments are being developed in plots with poor access and inadequate parking without adhering to the building and zoning regulations. Such

constructions are also straining the available infrastructure, which are not designed to take load of such high-density intensive development. Hill Cart Road is always choked with traffic because of inadequate width, encroachments on the road, mixed land use, high volume of inter and intra traffic.

These fact highlights the need for planned development of Shimla with due consideration to fragility of the environment and preserving the natural and built heritage. There is a need to provide matching infrastructure like electricity, water supply, sewerage, solid waste collection and disposal along with recreation places for resident population as well as tourists. Tourism is playing an important role in creating employment generation and increasing revenue to the government, thus creating further growth stimuli. Unregulated tourism without consideration to hill-ecology in the long run could be disastrous, which warrants propagating only eco-tourism in the State of Himachal Pradesh. There is plenty of scope of eco-tourism in Shimla and its environs which are bestowed with various geomorphological features besides variety of species e.g. deodar, pines, chill, oak, and red flowering rhododendron, glen, dales, precipitous gorges valleys and ridge along with special cultural and ethnic areas are aplenty.

Though Shimla is a small town, it is faced with problems like urban management, provision of facilities / amenities in a balanced and equitable manner. Water supply, sewerage, solid waste collection and disposal, recycling need to be improved and upgraded on priority. To avoid mixing of water lines with sewerage / drainage pipes, proper technical alternatives needs to be explored. Urban poverty, urban squalor, urban slums and squatters, etc, are other aspects which need to be tackled with sensitivity before it assumes alarming stage.

The growth of towns in hill areas should be regulated through local ecological considerations. A network of small urban centers should be encouraged. Land use and architecture in these urban settlements should be compatible with ecology. Any development with building activities, road construction should be regulated in consideration to the ecosystem. Keeping in view these issues and problems and, Shimla to act as a capital city of a forward looking dynamic young state, Vision – 2025 is required to be formulated with visionary zeal.

Balanced development of Shimla will give fillip to sustainable social and economic development of hill state and improve infrastructure. In addition, it will promote growth in eco-tourism, accommodate increase in population, and encourage planned and orderly land use development. This will also help in planned development of transport infrastructure, utilities, services, etc, and conservation of heritage. In this connection, Vision - 2025 for Shimla may set the tone for future action areas, which will help for comprehensive and integrated development of Shimla Planning Area and create a well-managed and healthy living environment through effective planning and good governance.

Shri D.S. Meshram, President ITPI, in his Presidential address stated that the Institute of Town Planners, India visited Shimla earlier for discussing "Planning for the Next Decade 1974 – 1984" in



Shri Virbhadra Singh, Hon'ble Chief Minister of Himachal Pradesh, Shri D.S. Meshram, President ITPI, and Shri Pradeep Kapoor Secretary General, ITPI on the dias, during Valedictory Session.

1972. After a gap of 30 years, we are extremely happy to revisit Shimla the capital of *Devbhumi* - Himachal Pradesh today, on the occasion of the fifty second National Town and Country Planners' Congress for discussing the theme 'Development of Hill Capitals: Shimla – Vision 2025'. The sub-themes are:

- Approach to development of Hill Capitals
- Management and Governance of Hill Capitals
- Eco-tourism as Engine of growth for Shimla and
- Revitalization / Rejuvenation of Shimla.

Both Central and State Governments have extended their liberal support for organization of the Congress. The main sponsorer of the Congress is Ministry of Urban Development and Poverty Alleviation, Government of India, and Co-sponsored are Ministry of Tourism and Civil Aviation, Government of Himachal Pradesh and Delhi Development Authority (DDA). Other agencies which have collaborated with the ITPI for the successful organization of the Congress, include Himachal Pradesh Housing Board; State Environment Protection and Pollution Control Board of Himachal Pradesh, Directorate of Town and Country Planning, Himachal Pradesh; Directorate of Urban Development, Himachal

Pradesh; and National Institute of Disaster Management, New Delhi.

Hills and mountains, have influenced the life, culture and economy of the people living in these areas. In our country they contain about 10 per cent of total population but, in fact, almost half of the country's population living in or adjacent to the hilly and mountain areas, depends directly or indirectly on the resources of the hills. With the increasing pace of industrialization and dwindling of natural resources in the plains, hills are becoming the frontier regions of the country. Despite rich natural resources of forests, hydel power, minerals, etc, hill areas have generally remained poorly developed. On the other hand, increasing pressure of human activities has considerably damaged the ecology and environment of the hill areas. Excessive exploitation of natural resources and implementation of ill-conceived development projects have been threatening the ecosystem, the discernible destructive impact of which, is seen in the plains by way of flash floods, salination of water bodies, loss of soils and crops, damage to human habitat, etc., leading to irreversible human and economic loss. Although considerable awareness has been created about the deteriorating environmental quality and conditions in

the hilly regions since Stockholm Conference on Human Environment in 1972, the remedial measures are not keeping pace to cope up with the alarming situation.

The IUCN (International Union for the Conservation of Nature) defines eco-tourism as "environmentally responsible travel and visit to relatively undisturbed natural areas, in order to enjoy and appreciate nature that promotes conservation, has low negative effects or impacts and provides for beneficially active socio-economic involvement of local population."

The WTO (World Tourism Organization) defines sustainable tourism as the "development that meets the needs of present tourist and host regions while protecting and enhancing opportunities for the future". UNESCO suggests that eco-tourism can be a powerful tool to help, eradicate poverty and pave the way towards sustainable development and accordingly recommends the policies to promote development of sustainable tourism, to identify and protect exceptional natural and cultural sites as tourist destination, protect heritage including languages, music and oral traditions.

The key players in promoting eco-tourism are the central and state governments, the local authorities, the developers and the operators, the visitors and the local community. Each one of them has to be sensitive to the environment and local traditions. In fact, eco-tourism is a potential vehicle for generating environmental, socio-economic and cultural benefits at both local and regional levels. Therefore the planners in consultation with the local community and other concerned actors and stake holders need to prepare a management plan for each eco-tourism sites.

The conservation of heritage in hills stations needs to cover not only man-made heritage but natural heritage, as well. The conservation of natural heritage like lakes, springs, flora and fauna,

forests, hill slopes, valleys beside the whole ambience and unique style of living of hill community deserves to be conserved, preserved and eco-restored wherever threatened.

Shimla, once an obscure village settlement at the height of more than 2205mt. known as *Shumlah*, has a special place in Indian city planning. Shimla, the summer capital of pre-independent India and the Punjab, is the capital of Himachal Pradesh in post independent India, due to its salubrious weather and its location close to plains.

Present day, Shimla is a great contrast to its past. Being the state capital of a young state, it is pulsating with tremendous pressure of activities, due to large number of development programmes, numerous departmental and administrative functions of a capital, leading to the problems of governance and management. It is mainly a service town with 1,42,161 people as per 2001 Census, excluding the floating tourist population. The existing Structure Plan prepared by the Central Town and Country Planning Organization in the early seventies was for the year 1991. In spite of the fact that the Plan is being implemented, growth of Shimla appears to be unplanned and haphazard. Every conceivable space, which is being utilized, in Shimla generates further additional activities inviting more people from various corners of the state and outside, in addition to floating tourist population. Shimla is a favoured destination of domestic and overseas tourists. A large number of trees have been cut only to be replaced with ugly buildings. Multi-storey buildings have become a major eyesore. Offices are spread out in a rather haphazard manner. Most of the city is littered with solid wastes. Sewers and drains are choked in many places. Due to faulty and choked sewerage pipes, slide planes have developed over hillsides and some parts of the city, are showing signs of sinking and collapsing. Development control regulations are treated with disdain and

viewed as anti-growth. Vehicular pollution, traffic bottlenecks, lack of parking spaces and terminal facilities, haphazard growth of offices and residences has serious effects on the environment of the city. Planning violations, encroachments, unauthorized construction, and growth of slums have defaced this once beautiful city – the queen of hills.

Rejuvenation brings the present situation to the same condition as before. Shimla was designed in the past for the population of 20000-25000 while today 1,42,161 population is housed in Shimla. This along with the high growth of vehicular population has created congestion. Residential areas/buildings are being converted into commercial buildings generating increased mixed land uses and also high volume of traffic. Most of the structures are old and in bad condition. Some of the most important issues that need priority consideration are : improvement in accessibility especially by means of public transport, discouraging use of private motorised vehicles and reduction of traffic volume within the core areas, possibility of creation of loop roads around the core area, re-routing of heavy traffic etc.

In spite of poor state of development in hill areas and large-scale environmental and ecological problems, hill areas in India have vast potentials, which need to be harnessed properly in order to have sustainable development of hill regions on a wider scale. The basic approach to hill area development should be to arrest further damage to the fragile mountain ecosystem and to promote development without large scale destruction. The Plan for hill development should attempt to highlight the role of each and every sector of development in bringing socio-economic benefits to the region and in maintaining the vital ecological balance by coordinating various economic and social activities in space through the creation of a systematic and functional settlement system.

The basic philosophy of hill area development, in essence, should relate to sustainable development, within the parameters of the World Commission on Environment and Development's definition i.e. 'sustainable development is the ability to meet the needs of the present generation without compromising the ability of the future generation to meet their own needs'. Therefore, in this backdrop, it would be pertinent to revisit all such relevant issues, more so, because by 2025, Shimla and all other hill capitals of our country would not only attract the influx of migrant population but also exodus of tourist floating population. The threadbare discussions will enable all the concerned players / stake holders to take timely and appropriate action for the development of all the hill areas in general and hill capitals in particular. Let the hill capitals be not the isolated islands of prosperity, keeping surrounding region underdeveloped, undeveloped instead let it facilitate the whole hill region to develop and prosper.

Shri Virbhadra Singh, Hon'ble Chief Minister of Himachal Pradesh in his Valedictory Address highlighted that hill areas are environmentally sensitive, and ecologically fragile with extremely low level of tolerance for external interventions by human beings. Forces of urban development cause irreversible environmental damage to these areas by upsetting the biological balance and many natural habitats could be destroyed to the point of extinction if proper balance is not observed, this fact needs to be recognized and respected. Development in general and urban development in particular is not largely harmful to natural environment of hills, if carried out with greater sensitivity towards natural habitats.

Technological advancements of today could ensure better protection from the harmful effects of urban development. Specially formulated building byelaws could bring about urban development, which is extremely sensitive to natural habitats in the hill areas. Services and



Shri Virbhadra Singh, Hon'ble Chief Minister, Himachal Pradesh addressing the delegates.

utilities could be provided in such a way that wastes are processed, recycled and reused. The developments in hill areas should be carried out with a view to exploiting as minimum of natural resources as possible, he opined.

Even though each one of us, is abundantly clear that all urban development in the hill areas, must be environmentally sensitive but there are compulsions that development needs to be carried out as per requirements of the people of the State, off course, with minimum possible damage to the natural habitats. Sometimes if it is unavoidable, it must be recouped with more magnitude and velocity. For example, if it is unavoidable to cut trees for locating some important activities then, even greater number of trees could be planted, in planned green areas or even alongside roads and other public places in a shortest possible time. This would not be the exact replica of the natural habitats that got altered as a result of changes carried out but would minimize the after effects. It is a fact of life that, at the end of the day, human civilizations must continue to grow, that is the *mantra* of human survival.

Yet another issue highlighted was about an urgent need to formulate eco-friendly building byelaws for hill area urban development with the involvement of

governments, corporate sectors, builders and local community. All those who interfere in the natural habitats must compensate for altering natural habitats, in kind such as by planting trees, etc, or in cash so that government could repair or minimize damages by investing in environment upgradation projects. Planners further should identify zones of least resistance for urban development and also map ecologically sensitive areas such as ridges, forests, springs, and propose policies for conserving these areas.

Public in general expects tangible benefits from all government efforts, the efforts made by town and country planners are no exceptions. Therefore, provision of utilities and services needs to be practical and should not be necessarily based on the norms of plain areas. But at the same time, policy makers will have to also understand that urban utilities and services must be provided with the major objective of achieving sustainability, most importantly environmental sustainability.

To strike a balance between human needs and environmental protection i.e. balance between development and ecology is easier said than done, he opined. That is why disposal of solid and liquid wastes remains central problem of urban development in all areas including hill

areas. While disposal of liquid wastes i.e. sewage from hilltops to the lower ground is easier in hill areas, if such disposal is made without taking care of treatment and reuse, it could cause damage to natural habitats in the lower areas of hills. In order to avoid damage to natural habitats from liquid wastes, good practices for liquid waste management should be adopted.

Solid waste disposal and management is the major problem in hill areas if not collected, transported, disposed, processed, recycled and reused. One possibility is that NGOs, general public and municipal governments could forge partnerships for the management of solid wastes. In this direction a beginning could be made in Shimla. General public as well as the tourists will have to be educated in respect of solid waste disposal.

Building designs could contribute greatly in conserving the natural environs of the hills and even enhancing the existing natural beauty. Building designs must not be alien to the local culture and society. Builders and designers should plan and design buildings, which are in harmony with vernacular architecture, which could easily assimilate with surrounding natural environments. Most sensitive areas such as forests and other ecologically sensitive zones should be declared as 'no development areas'. In Shimla environmental sensitivity should become a hallmark for any kind of development to be allowed by the concerned agencies. It would be advisable to encourage dispersed settlements development pattern, and formulate policies, which encourage development of small townships around Shimla. Urban settlements should be multi-nodal rather than single node this would go a long way in reducing the congestion.

Hill areas and people living here are fortunate to have abundance of natural wealth to attract tourists. Economies of hill towns are by and large depend on

tourist inflow. Therefore, the simple logic would suggest that urban development should provide amenities to the tourists, yet administration should be able to conserve natural wealth and habitats, which attract tourists. Therefore, simply calculating the number of tourists visiting the town and providing adequate number of hotel rooms for them and other tourist infrastructure is neither environmentally sensitive nor a sustainable form of planning. He emphasized that planning must achieve all of these objectives simultaneously, for which preparation of Integrated Development Plan has to be brought back and practised. Sustainability here must mean protection of natural habitats, long-term survival of such habitats and biodiversity, which is the social responsibility of decision makers and all stakeholders. All the key players in promoting eco-tourism i.e. Central and State Governments, local authorities, the developers and the operators, the visitors and local community have to be sensitive to the environment and local traditions. It should be crystal clear that eco-tourism is the engine for generating environmental, socio-economic and cultural benefits to the people at local and regional levels.

While pursuing sub-regional planning, town and country planners could simultaneously achieve two objectives: first, encourage tourism and second, diversification of the sub-regional economy. Entire economic emphasis on tourism is unsustainable, thus economic diversity is important. Medicinal plantations and reliance on cash crops could kick start economic diversity in hill areas. Fruit processing industries and other non-polluting small-scale industries such as electronics industries could further rejuvenate urban economies of hill towns.

Accessibility in hill areas is generally restricted due to difficult physical terrain and topographic reasons coupled with lack of financial resources available to the state governments. Accessibility among settlements in hill areas has always been a vital issue, and

accessibility of these settlements to the outside world is another important transportation and economic issue. Both need to be addressed urgently and simultaneously by policy makers and private investors. Government of Himachal Pradesh is fully aware of these issues and continues to work towards achieving greater accessibility within the State.

Governance of hill areas has a special significance for hill areas. Management of natural environment and built heritage is the first important component of governance in hill areas. Governance also implies that planning is carried out at sub-regional level, and all municipalities and *panchayats* integrate their planning and implementation efforts with a view to achieving environmental sustainability. Provision of adequate utilities and facilities for local population and the tourists is the next important aspect of governance. Safety from natural hazards such as earthquakes, landslides and cloudbursts would be yet, another important concern of local governments in hill areas.

Hon'ble Chief Minister on this occasion also announced that no new construction would be allowed and in old buildings construction would be restricted to existing plinth area only. Internal changes would only be permitted and no additions

/ alterations will be allowed in exterior facades. After the finalization of Master Plan local bodies will be required to strictly follow the provisions of Master Plan. He also announced that nobody will be allowed to cut the trees without prior approval of the Cabinet. Violators destroying the trees would be liable for imprisonment. He also emphasized to adopt water harvesting by following the principle of conserve, preserve, and re-use and recycle the water. He also stated that the recommendations of the Congress would be considered seriously by the State Government of Himachal Pradesh for implementation.

The vote of thanks were extended by Shri Pradeep Kapoor, Secretary General ITPI, and the messages received from the VIPS., were read by Shri S.S. Dalal, Vice-President ITPI.

An exhibition on the theme "Development of Hill Capitals" was organized on this occasion to provide an excellent opportunity to various Government Departments, Non-Governmental organizations, Academic Institutions, Public Sector Agencies, Development Authorities, Urban Local bodies and Private Sector agencies for displaying successful and innovative projects and schemes for new vision on hill area development. The Exhibition was inaugurated by Major Vijai Singh Mankotia,



Major Vijai Singh Mankotia, Hon'ble Minister of Tourism and Civil Aviation Himachal Pradesh inaugurating the exhibiton, organised during the congress

Hon'ble Minister for Tourism and Civil Aviation, Government of Himachal Pradesh.

On this occasion the colorful souvenir was released by Major Vijai Singh Mankotia, Hon'ble Minister for Tourism and Civil Aviation, Government of Himachal Pradesh.

In all 52 technical papers were discussed in the plenary session and in 4 workshops namely

- Approach to development of hill capitals
- Management and development of hill capitals
- Eco-tourism as engine of growth for Shimla and
- Revitalization / Rejuvenation of Shimla

The major recommendations emerged are given below :

#### Development of Hill Areas

- The integrated Development Plan for hill areas should specifically highlight the role of each and every sector of development in bringing economic benefits to the region and in maintaining the vital ecological balance by co-ordinating various economic and social activities in space through the creation of a systematic and functional human settlement system. The integrated plans also need to be prepared at sub-regional level identifying the priorities of development programmes.
- An integrated development approach needs reliable and useful data and information on land use, natural resources, socio-economic activities and other parameters of development. The remote-sensing techniques have proved to be very useful in inventorying and in development, management and monitoring of land, water and other natural resources, therefore latest technologies needs to be adopted.



Major Vijai Singh Mankotia, Hon'ble Minister for Tourism and Civil Aviation, Himachal Pradesh releasing the Souvenir.

- Development approach for hill area should emphasize the development of alternate sources of energy for progressively reducing dependence of forest, fuel wood, planned development of tourism activity, improved linkages among settlements, development of resources and optimal utilization.
- For conservation and eco-development of hill areas, a watershed would be a suitable unit for planning and, accordingly, while delineating planning region for hill area development, it would be more appropriate to take into account the whole of watershed area including high altitude of hills, plateaus, valleys and plains. The Development Plan should also advocate a low-density development, which will not strain the eco-system.
- To preserve and maintain the genetic pool of special and rare flora and fauna in the hill region, biosphere reserves such as national parks, wildlife sanctuaries, reserve forests and scenic spots needs to be preserved and developed.
- The site planning for hill capitals should be based on land use classification, which will help to discourage high-rise development and encouraging the use of local

materials and construction techniques and also help in preservation of flora and fauna of the hill area; prohibiting removal of topsoil, felling of trees and excavation.

- The ecologically fragile sensitive areas should be declared as 'Special Areas/Conservation Zone'. The environmental degrading activities should not be permitted and only the bare minimum administrative and supporting activities should be permitted in these areas to preserve its natural environment.
- Development Control Regulations and the Building Bye Laws should focus on the provisions for mitigation of natural disasters and to encourage eco-friendly activities. Special regulations for Conservation Zones, Guidelines for activities preserving the eco-system, norms for densities, etc, should be indicated.
- The traffic planning for hill capital town should aim at:
  - Providing for spatial and functional linkages
  - Bringing the activities nearer to the people by developing urban axes linking residential colonies and work places.

- Discouraging polluting vehicles and adopt 'Polluter Pays' principle
- Encouraging network of pedestrian access and non-polluting vehicles such as electric vehicles, cable cars, lifts, etc.
- The Master Plan should provide for promotion of eco-tourism. The State Government needs to explore the possibility of upgradation of existing destinations and identification and development of new destinations.
- Long term eco-tourism policy needs to be prepared with adequate safeguards to ensure that the tourism initiative is sustainable over a long period of time and continues to benefit the future generations as well.
- Tourist Facilitation Centers be set up by the State Government to cater to various needs of travelers, foreign as well as domestic, and to offer facilities for air and train reservation, money changing counters and information about other tourist centres in the country.
- Suitable Air connections with shuttle/ feeder bus/taxi services should be given high priority to facilitate foreign tourists as well as domestic tourists.
- State Government may identify and promote few rural settlements as eco-villages to promote eco-tourism and to help in dispersing tourist activities and employment away from the large hill towns.
- The wide public awareness programme for environmental protection, conservation and promoting participatory process need to be evolved by strengthening appropriately planning and development machinery and implementing the eco-development plans for the hill areas.
- Good planning is important but its effective enforcement / implementation is more important.

### **Shimla Urban Area**

- In giving shape to sustainable development of Shimla, State urbanisation policy, industrial policy, trade/offices/ hotels location policy, housing policy for redevelopment / rejuvenation of central core area (including pedestrian Mall) will be pertinent. Review of development controls and building bye-laws in Shimla Planning Area, conservation of eco-sensitive areas (natural heritage) and built heritage sites, etc. will be other important aspects requiring priority consideration.
- Shimla is required to be planned in the regional context by integrating the main human settlements around Shimla.
- At present, Shimla town is the nodal point for all kinds of activities, such as, administration, tourism, housing, trade and commerce, traffic and transportation and industry. All these activities need to be integrated to get ample opportunity to grow further cohesively.
- The possibilities of introducing alternate modes, such as, ropeways, cable cars, escalators, and other innovative system choice needs to be explored. Helicopter services can also be introduced may be by involving private investors. The number of elevators have to be increased and evenly distributed in proportion to the intensity of commuters. The pedestrian walkways have to be well integrated with these modes for efficient movement. The existing / future parking lots in the town should also be integrated with these interchanges.
- It is necessary to improve not only horizontal movement but also vertical movement (for example Lift), and also to explore the viability of short haulage of passengers / goods by ropeways, cable car or other innovative system choice and facilitate development on both sides

of hill, wherever feasible, by tunneling at appropriate places by weighing all pros and cons of benefits and there implications.

- For integrated development, linkages to new area of development and shifting of facilities like wholesale market, service garages, godowns, shopping, offices, etc, from congested central areas needs priority attention.
- Mass transit facility must be introduced immediately, as it would take some time to bring about changes in travel behavior of the people of Shimla. The type of facility has to be a non-polluting high technology system and has to go well with the fragile geomorphology of Shimla town.
- Shimla will not need a high capacity long-haul system, but will need a sophisticated and attractive facility that can also become remunerative (example Santosa Island in Singapore). Being a place of tourist importance such a system will be viable (particularly when tourist traffic is more than 25% of the resident population).
- New construction techniques, having minimum destabilizing impact on the environment, should be adopted, so that topographic mutilation and the extensive use of land based resource such as boulders, earth and wood can be minimized.
- The Government offices, institutions, which are acting as bottlenecks should be shifted to appropriate locations. The buildings and associated spaces presently holding the above activities can be effectively used for tourism activities for generating revenue to the state.
- Phased development programme for increased accessibility to other centres, both intra and inter urban centres, should be undertaken with due consideration to the ecology and environmental sustainability. Naturally the basic building controls

prescribed through zoning regulations, such as setbacks, height, F.A.R. and ground coverage would have to be re-formulated of course with due consideration to topography, sun light and, wind direction, etc.

- Water harvesting methods can be adopted without hampering the eco-system and environment. Waste water re-cycling methods can be employed so that the demand for the city cleaning, industrial use, fire station, drainage cleaning, etc., can be met adequately.
- Small scale recycling plants can effectively solve the present day garbage related problems in the town. The available garbage can be gainfully converted into manure and the feasibility of converting into construction materials, etc., could be explored.
- The available sources for water, needs to be identified, developed and adequate water supply scheme to be worked out for satisfying the existing as well as future demand.
- Tourist Facilitation Centers be set up by the State Government to cater to various needs of travellers, foreign as well as domestic, and to offer facilities for air and train reservation, money changing counters and information about other tourist centres in the country.
- Hyper-linking of HP Tourism Website to web-sites in the Northern Region should be developed.
- There is also a need to build a new Airport to receive bigger flights. Ministry of Civil Aviation may be approached to clear Sundernagar project, which is already under consideration. The State Government may encourage landing and take-off of smaller aircrafts for small towns for opening up of other hill towns / regions.
- Augmentation of Kalka railway station, linking Shimla as well as frequent train services with Delhi

would enhance the tourist convenience and increase tourist arrival manifold.

- Prepaid taxi or other para-transit booths be set up at the major interchange points.
- Guide and tour operation activities need to be formalized with adequate training, licensing and monitoring of these activities.
- Adequate publicity through printed and electronic media by the public agencies to attract the tourists should be given priority.
- Heritage zones as well as eco-tourist zones be identified to cover important historical places, and also to prepare projects of tourist facilities, by involving both public and private sectors which will bring economic and social benefits to the state.
- Satellite towns along major highways connecting Chandigarh, upper and lower Himachal areas such as Vaknaghat, Fagu and Ghandal be encouraged and new locations at about 20-25 Kilometers distance be explored.
- Bold initiative may be necessary to create a counter magnet at an appropriate location with more than one lakh population to contain the growth of Shimla. This may have a central university, state level hospital, a modern shopping centre, industrial complex and transport functions. The order of facilities needs to be at least at par to Shimla so that it attracts people for settling and curb in-migration from the lower Himachal.
- The Mall is Shimla's main pedestrian travel spine with its architectural splendor and ambience that needs to be zealously preserved.
- The seven hills of Shimla stand divided into seven zones namely (i) Central (ii) Kasumpti (iii) Bhari, (iv) Summer hill, (v) Totu (vi) Tutikhandi, (vii) Sanjanouli.

These zones be further divided into smaller action areas which then be developed, one by one, by integrating into the Development Plan proposals. To begin with, the following areas within the central zone could be taken up for planned decongestion and beautification on a priority basis as a part of rejuvenation strategy.

- Jakhu-Ridge Area
- High Court –Hotel Holiday Home Area
- Rani Jhansi Park-old Ladies and Children Park
- Rivoli road-the link road leading from the Scandal Point to the Lakkar Bazar Bus Stand
- The forest to the North portal the Auckland tunnel
- The decongestion of the Subzi Mandi
- Heritage Zone
- Participation of the community based organizations (CBOs) and Non-Governmental organizations (NGOs) are of paramount importance to create awareness and to play active role for ameliorating environmental improvement and conservation of heritage.
- Eco-tourism development programmes with funding requirements over the plan period are required to be worked out. Central Government may be approached to create Hill Area Development Fund.
- Capacity building of Shimla municipality and concerned State agencies like Urban Development and Town and Country Planning departments, Pollution Control Board, etc., is essential.
- Urban Development and Town and Country Planning be placed under the same ministry with separate departments for better co-ordination, co-operation and taking unified planning decisions.

## INTERNATIONAL WORKSHOPS / CONGRESS

### 40th IsoCaRP World Congress, Geneva

The international society of city and regional planners (IsoCaRP) is organizing the 40th World Congress during 18-22 September, 2004 at Geneva, Switzerland on "Management on Urban Regions" with the aim to draw the recommendation on the management of urban regions against the backdrop of the controversial phenomenon of globalization. It is expected that highly experienced professionals, such as planners, urban stake holders, economist and politicians as well as national and local city officials are expected to participate. The congress will deliberate in 4 parallel sessions on ;

- Strategic factors.
- Need of Urban Planning.
- Medium – size cities.
- Global inventory.

For further details and enquiries contact:

IsoCaRP International Society of City and Regional Planners  
Willem Witsenplein 6, Rm 459a 2596  
BK the Hague – The Netherlands  
Phone + 31 40 3462654  
Fax + 31 70 3617909  
Email : [secretariat@isocarp.org](mailto:secretariat@isocarp.org)  
[www.isocarp.org](http://www.isocarp.org)

### International Workshop on "Urban Renewal"

HUDCO / HSMI and MATURE – TIFAC under United Nations Development Programme (UNDP) is organizing the International Workshop on "Urban Renewal" during 17-19th February, 2004 at Heritage Village, Manesar, Haryana. Urban Renewal in today's context is "the process of conserving, re-habilitating or clearing and re-constituting parts of a city to preserve or to modernize the physical environment or to adopt urban segments to new process or uses". It therefore, requires not just planning and technological interventions but networking and partnership between various stake holders. Accordingly the

Workshops aims at experimenting towards an integrated approach to urban renewal in selected cities in India. The Workshop objectives are:

- To provide a platform for experience sharing on the lessons learnt from the MATURE project.
- To generate awareness on the need to focus on the various aspects of urban renewal.
- To prepare an action plan on urban renewal based on a consultative process, which will form the basis for future policies and strategic planning.

## NATIONAL WORKSHOPS AND SEMINARS

### National Workshop on 'National Urban Information System Scheme'.

Town and Country Planning Organization (TCPO) organized a workshop on National Urban Information System (NUIS) Scheme on 19-20 November 2003 at IIC Auditorium, New Delhi in collaboration with ISRO. Invitees to the workshop consisted of State Secretaries of Planning, Chief Town Planners / Directors of Town Planning of various states academicians, consultants and other experts. The workshop was structured in three technical sessions focusing on NUIS programme and Urban Database case studies followed by panel discussion.

Welcoming the delegates Shri M. Rajamani, Jt. Secretary (UD) gave the background of NUIS Scheme and stated that the need has arisen to undertake deliberations on NUIS in order to take State Governments, user agencies and stakeholders on board for smooth implementation of the scheme, which was started during 8<sup>th</sup> Plan. Dr. K.N. Shankara, Director Space Application Centre, Ahmedabad, highlighted efforts

The themes of the Workshop will focus on:

- Planning and urban design issues in urban renewal.
- Policy and processes in urban renewal.
- Technological interventions in urban renewal.

For further details and enquiries contact Ms. Gayatri R. Rajesh

Fellow / Workshop Co-ordinator  
Human Settlement Management Institute (HSMI)

6th Floor, HUDCO HOUSE, Lodhi Road, New Delhi-110003

Tel : +91 11 24365145, 24369534/35

Fax : + 91 11 24365292

Email : [urworkshop2004@yahoo.co.in](mailto:urworkshop2004@yahoo.co.in)

[urworkshop2004@rediffmail.com](mailto:urworkshop2004@rediffmail.com)

of Department of Space in developing remote sensing technologies over two decades with higher resolutions enabling large-scale mapping to address urban applications.

While inaugurating the workshop Shri N.N. Khanna, Secretary (UD), Ministry of Urban Development and Poverty Alleviation, Government of India, stressed on the need to give top priority to development in the field of communication and information technology so as to control haphazard and rapid growth of urban settlements both in physical and demographic terms. Development of accurate urban information based data is required to optimally manage and monitor these developments in terms of up-to-date base maps, land records and related statistical data he opined.

Shri Khanna also underlined that out of 5161 towns in the country, about 1200 towns only had Master Plans / Development Plans based on some kind of base map. Preparation of up-to-date base maps for all the towns / cities in the country by conventional methods will

not only be time consuming but very expensive. This task require concerted efforts at all levels by using modern techniques of aerial photography and remote sensing which opened up new avenues for generating cost and time effective information base.

Narrating the limitations of the Urban Mapping Scheme and to enhance the scope and utility, National Urban Information System (NUIS) and National Urban Data Bank and Indicators (NUDB&I) are required to develop spatial as well as attribute information data base for various levels of urban planning using modern data sources. In respect of spatial data base, it is proposed to develop two levels of data bases for Master Plan / Development Plan and detailed town planning schemes using high resolution remotely sensed data. In the first phase, 136 urban settlements are proposed to be covered at an estimated cost of Rs. 60.44 crores. Shri Khanna announced that in order to encourage State Government to play an active role in implementing scheme, the funding pattern would be in the ratio of 70% central assistance and 30% state contribution.

He drew attention to the fact that success of the scheme depends on easy and timely availability of aerial photography for which restrictions imposed by the Ministry of Defence (MoD) on data capture and mapping of urban areas should not be hindrance in undertaking civil and developmental projects in urban areas therefore, a concerted efforts are needed by various standing committees to impress upon MoD to finalize guide lines for wider usage of maps and images, he opined.

Shri K.T. Gurumukhi, Chief Planner, TCPO proposed a vote of thanks.

#### **National Seminar on Technical Manpower development and utilizations**

National Technical Manpower Information System, Institute of Applied Manpower Research, Delhi, in association with

National Institute of Technology, Rourkela, Orissa is organizing National Seminar on "Technical Manpower Development and Utilization" during 15-16 April, 2004 at Rourkela. The Seminar aims at providing a friendly and relaxed atmosphere to encourage the exchange of ideas between peers and providing opportunities for researchers, managers, and planners to learn from each other. The Seminar will focus on all the aspect of Technical Manpower including the sub-themes like

- current development in technical education.
- employment scenario of technical graduates.
- technical manpower forecasting.
- private participation in technical education.
- foreign participation in technical education.
- quality of technical education
- future perspectives in technical education.

For further details and enquiries contact:

Dr. S.K. Patel  
Organising Secretary, NTMIS  
National Institute of Technology  
Rourkela – 769008 (Orissa)  
Phone:0661-2475091(O), 2470344 (R)  
Fax: 0661-2475091, 2472926  
Email: [rkl\\_ntmisrkl@sancharnet.in](mailto:rkl_ntmisrkl@sancharnet.in);  
[nodal@nitrrkl.ac.in](mailto:nodal@nitrrkl.ac.in)  
Website: <http://nitrrkl.ac.in/tmdu>

#### **National Seminar on 'Architecture and Planning Education and Profession – The Changing Dimensions and future Directions in 21<sup>st</sup> Century'**

Department of Architecture, Town and Regional Planning, Bengal Engineering College (Deemed University), Howrah, in collaboration with the West Bengal Regional Chapter, ITPI and All India Council for Technical Education, MHRD, Government of India is organizing National Seminar on 'Architecture and Planning Education and Profession – The Changing Dimensions and Future

Directions in 21<sup>st</sup> Century', during 6-7 February, 2004. The experts, professional and educationists both from Architecture and Town Planning are expected to participate in the seminar. Besides an array of Architects, Engineers, Town Planners, Industrialists and professionals are also invited to have interactive discussions with the students community. The main theme will be deliberated in four technical sessions beside workshop and student interaction sessions.

For further details and enquiries, contact:

Prof. Arup Sarkar  
Organizing Secretary  
Department of Architecture, Town and Rural Planning  
Bengal Engineering College  
(Deemed University)  
Howrah.  
Email : [arup@arch.bees.ae.in](mailto:arup@arch.bees.ae.in)

#### **National Seminar on Water and Environment**

Centre for Environment and Management Studies, New Delhi is organizing a National Seminar on "Water and Environment" during 20-21 February, 2004 at India Habitat Centre, Lodhi Road, New Delhi, with the aim to find ways and means to conserve water for domestic, agricultural and industrial use. The seminar will focus on the areas like:

- Water Resource Management
- Conservation
- Environmental Issues
- Technological Advancement
- Sustainable Management Policies, etc.

For further details and enquiries contact:

Mrs. R. Sundaram  
Executive Director  
Centre for Environmental and Management Studies  
3, Friends Colony (West),  
New Delhi – 110 065  
Tele: (011)-26311646, 26312758,  
Email: [rajji5@vsnl.com](mailto:rajji5@vsnl.com)

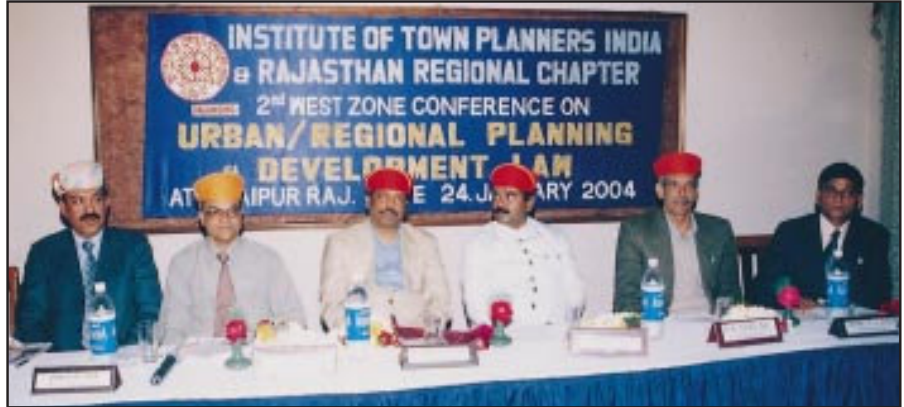
## ITPI NEWS

### Best Thesis Award

To inculcate healthy competition amongst young planners, Institute of Town Planners, India has been presenting Best Thesis Award since 1990. Thesis from all the recognized Schools of Planning getting highest marks are eligible to compete for the award. Since 1996, the Award has been dedicated to Late Prof. V.N. Prasad, one of the founder member of the Institute and a pioneer in the field of Urban and Regional Planning. The Best Thesis Award for the year 2003-2004 has been awarded to :

- **Ms. Anuradha Anand Pasarkar**  
for the thesis titled as  
“Evaluation of the Transfer of Development Rights (TDR) in Mumbai”  
from : Department of Urban Planning,  
School of Planning and Architecture,  
New Delhi  
  
Commendation Certificates were awarded to :
- **Ms. Neha Goel**  
for the thesis titled as  
“Rainwater Harvesting :Case study Mehrauli Block – Delhi “  
from : Department of Environmental Planning,  
School of Planning and Architecture,  
New Delhi
- **Ms. Sudesna Ghosh**  
for the thesis titled as  
“Tourism and Sustainable Development: Case Study - Darjeeling”  
from : Department of Environmental Planning,  
School of Planning and Architecture  
New Delhi.

The awards were distributed in the Valedictory Session of 52<sup>nd</sup> National Town and Country Planners Congress held at Peterhoff Shimla on 20<sup>th</sup> December 2003 by Major Vijai Singh Mankotia, Hon'ble Minister of Tourism and Civil Aviation, Government of Himachal Pradesh



*The proceedings of 2nd West Zone Conference in progress. Sitting on the dias are Shri Pradeep Kapoor, Secretary General ITPI, Shri D.S. Meshram, President ITPI, Shri Sudharshan Sethi, Divisional Commissioner Udaipur, Shri Yudhishter Kumawat, Chairman, Municipal Council Udaipur and Shri H.S. Sancheti, Council Member ITPI (left to right)*

### 2<sup>nd</sup> West Zone Conference

The 2<sup>nd</sup> West Zone Conference of ITPI was held at Udaipur during 24-25 January, 2004 on the theme 'Urban and Regional Planning and Development Law' which was inaugurated by Shri D.S. Meshram, President ITPI. Shri Sudharshan Sethi, Divisional Commissioner of Udaipur was chief guest and Shri Yudhishter Kumawat, Chairman of Municipal Council Udaipur was guest of honor. In his inaugural address, Shri D.S. Meshram, President ITPI, mentioned that planning laws' needs to be made citizens friendly so as to accommodate the changing urban dynamics which will ultimately facilitate preparation of peoples friendly Development Plans. Shri Sudharshan Sethi stressed that Development Plans should take into consideration the geographical and natural features. While Shri Yudhishter Kumawat expressed that the enactment of Urban and Regional Planning and development laws in Rajasthan the urban development will take a positive shape and facilitate the inflow of more tourists

both domestic and international. Shri Hemant Murdia, Chairman Rajasthan Regional Chapter and CTP, Government of Rajasthan in his concluding remarks expressed that recommendations of the Zonal Congress will help the State Government to finalize the draft Urban and Regional planning and development bill. Shri Pradeep Kapoor, Secretary General ITPI, welcomed the participant while Shri B.S. Kumawat, Secretary, Rajasthan Regional chapter extended vote of thanks.

### NOS Plan, 2004

The students of school of planning, CEPT are organizing NOS Plan, titled 'Satva 2004' a meet of students and faculty members from various school of planning in India during 27-29 February 2004. NOS Plan Satva 2004 will be inaugurated by the Shri Narendra Modi, Hon'ble Chief Minister of Gujarat state. On the occasion a magazine 'Ansh' with articles, interviews, case-studies will be released. Ansh is a culmination of a genuine need felt by the planning fraternity of CEPT.

## VYPEEN BRIDGES PROJECT ; A SELF SUPPORTING PROJECT OF KERALA

\* M. S. Jaya

### 1. Introduction

Based on detailed study of all the aspects of development, past trends, present status, and predictions for the future. The town planners of the Goshree Islands Development Authority prepared Town

Planning Schemes and projects. There is no doubt that the projects conceived by town planners will be the most appropriate to solve existing problems and to initiate development in the planning area. But many a time these projects

remain paper projects mainly due to fiscal constraints. Here is a project which is actually a twin project made as a single one to overcome restrictions of finance. Bridges to three islands, which was centuries, long dream of the people was made possible by planners by combining a reclamation project with this. This is being implemented now in Kochi, Kerala by the Goshree Islands Development Authority, Kochi.

## 2. Why Getting Connected Is So Important?

Kochi, the queen of Arabian Sea is blessed with scenic beauty, having vast stretches of backwaters spotted with lush green islands and a flourishing city on the mainland. With the establishment of Cochin Port Trust and the Airport in Willingdon Island and the subsequent bridge connections to the mainland, the islands south of Cochin gained much growth potentials and began to develop along with the city. But the islands north of Cochin, which have immense potentials for growth as those in the south except the bridge connections to mainland, were left behind in the process of development just because of lack of land connections. Thus, the potential land lying as close to the city as 200 meters is left undeveloped while urban sprawl takes place in the mainland for kilometers together. This renders the provisions of urban infrastructure and amenities inefficient and leads to wasteful expenditure of public money.

The sociologic aspect of the problem also warrants attention. Most of these islands are thickly populated, having a gross density as high as 4,100 persons per sq. km in Elamkunnappuzha. But the people from here have to come to the mainland daily even for marketing. Due to lack of hospital facilities in the islands, medical emergencies invariably end up in fatalities. Patients dying and women giving birth to babies in country boats are not very rare here. So, getting connected to the mainland by road is a long cherished dream of the islanders.

Considering all these factors, Goshree Islands Development Authority was constituted by the Government of Kerala under Section 53A of the Travancore

Town Planning Act IV of 1108 and Section 54A of the Madras Town Planning Act, 1920.

Major objectives of GIDA include linking of these islands and provision of basic infrastructure facilities for the integrated development of the islands.

### 3. Vypeen Bridges Project

The first project taken up by the Authority is to connect three major islands under the authority i.e. Bolghatty, Vallarpadom and Vypeen with the mainland through a trio of bridges. Due to paucity of funds, the State Government has not been able to put up the much-needed bridges. Because of the financial constraints, the Vypeen Bridges Project was envisaged as a self-supporting project. The project has four major components.

- Land reclamation
- Bridge construction
- Connecting road
- Road network on reclaimed land

The Authority proposed to reclaim 25 hectares of land adjoining the mainland in continuation of the existing marine drive. Sales proceeds of this land are to finance the construction of bridges connecting roads and other infrastructure. The total financial outlay of the project was estimated to be Rs.84 crore.

#### 3.1 Alignment

Alignment of bridges and roads largely decides the financial feasibility of the project. Besides the dislocation of families has to be kept to a minimum. These two parameters were the main deciding factors for finalizing the alignment. The first bridge starts from the middle of the reclamation crossing to Bolghatty at its narrowest point. The second bridge crosses over to Vallarpadom. The alignment at Vallarpadom passes through the Port's land for a length of 1,420 meters. The third bridge joins Vypeen just south of A.G. Velayudhan road. The whole alignment of 3,485 meters is in a single straight line

#### 3.2 Reclamation

Purpose of this reclamation is to find finances for the project from the sale

proceeds of land. Therefore great care was taken to locate it at the prime location of the city, which is none other than the extension of the hectic Ernakulam Marine Drive.

This area was mainly under shallow waters with an average sounding of 0.4 meter from Cochin chart datum. There was some silted up dry land also towards the northern end of the site. Area of reclamation was arrived at so as to achieve better training of the channels and to avoid further silt of channels by ensuring better flushing velocities. Thus this reclamation is expected to upgrade the environmental quality of the surroundings.

Establishments of the BPCL, HLL and HPCL on the east need large quantities of water for their daily work and also for fire fighting purposes. So, a ten meter wide canal is retained along the western boundary of these establishments. This will serve as an outlet to the drainage canal from the mainland.

#### 3.3 Vertical Profile

Vypeen – Ernakulam road link crosses three channels. Through two of them pass national waterways. The Kollam-Kottappuram National Waterway - III passes through Vypeen – Vallarpadom channel. Udyogamandal canal, a branch of the main waterway passes between Ernakulam and Bolghatty. According to the stipulation of Inland Waterways Authority of India a vertical navigation clearance of 7 meters above High Water Level and a horizontal clearance of 32 meters shall be provided for navigation. Clearances required in Vallarpadom – Bolghatty channel could be decided locally. It has been decided to provide a vertical clearance of 7 meter in that channel also. For achieving this vertical elevation, the bridges and approaches are to be on gradients. It is proposed that a gradient of 3.2 percent will be provided. These gradients are connected by summit curves designed for a vehicle speed of 60 kilometer per hour. On the ground where the gradients meet the horizontal, valley curves have been provided, and designed for the same speed. Summit curves on Bridge1, Bridge 2 and Bridge 3 are 90 meter long. All the six valley curves are

40 meter long. There will be a traffic island between the approaches of bridges 1 and 2 on Bolghatty Island. From here, road connections to the north and south of Bolghatty will be established.

### 3.4 Geometrics

These bridges will have a motor carriageway 7.5 meter wide to cater to two-lane traffic. There will be two-cycle track cum footpath 2 meter wide on either side. These will be segregated from the motor traffic by verges of 0.3 meter wide. Railings will flank the carriageways. The bridges will also carry water pipelines. There will be provision for carrying telephone and electric cables.

### 3.5 Loading

The bridges are designed to cater to the same live load as national highways as follows:

- 70R tracked loading – one lane
- 70R wheeled loading – one lane or
- IRC class A loading – two lanes,

Footpaths cater to relevant IRC loading. The bridges are designed to carry the loading of two 750 mm diameter water mains and service cables.

### 3.6 Span Arrangement

Regarding Bridge 1: Ernakulam – Bolghatty, though the waterway is only 295 meter, the need to accommodate a vertical navigational clearance of 7 meter combined with a very poor founding stratum has necessitated a length of 398 meter for this bridge. The bridge comprises of 7 marine spans of 38.55 meter and two end spans of 25.5 meter and 3 land spans of 26 meters.

Total length of Bridge 2: Bolghatty – Vallarpadom is 578 meter. This length is made up of 11 marine spans of 38.55 meters, 2 land spans of 26 meters and two end spans of 25.65 meters.

Bridge 3: Vallarpadom – Vypeen has a length of 449 meters. This length is made up of 9 spans of 38.55 meters, 2 land spans of 26 meter and 2 end spans of 25.5 meters.

### 3.7 Foundation

Piers of Bridge: 1 are supported by 5 to 6 bored cast-in-situ piles of 1,000 mm

diameter founded at 41 to 61m depending on the soil parameters at each pier position.

Piers of Bridge: 2 are supported by 4 bored cast-in-situ piles of 1,000 mm diameters founded at 60 to 65 m. each.

Marine piles of diameter 1,000 mm founded at 60 to 65 meters each, will also support Piers of Bridge: 3. 5 piles of 1,000mm diameters will support abutments. Foundations are also designed to withstand an accidental impact of 600 ton barge, with fenders to absorb this impact

### 3.8 Substructure

There are two piers at each pier point. These piers are circular type with a diameter of 1,300 mm and with independent caps. The piers are made of M40 or M45 concrete. The abutments will be wall type with cantilevered return walls.

### 3.9 Superstructures

Superstructures of all bridges will have single cell box type section for marine spans. These are pre-cast and simply supported on bearings. Land spans are cast-in-situ I-girders. Total width of the deck is 12.7 meter. Each box girder weighs 600 tones. The total quantity of concrete for one girder is about 240 cubic meters and pumping does concreting. About 2,500 bags of cement and 33 tones of steel are required for casting one girder. For prestressing 12 cables of 19 strands (each strand 12.7 mm, 7 ply) are used. The first stage prestressing is done after 7 days of casting and the second stage stressing is done at the end of 28 days.

### 3.10 Method of Construction

Boring for the piles are being done from a floating pontoon. Lowering of the reinforcement cage into the borehole is being carried out using derricks. Concreting inside the bore is being done by using tremie pipes. Pile caps, piers and pier caps are cast-in-situ. Box girders for the superstructures are pre-cast on land. These units, weighing nearly 600 tons, are lifted from the casting yard by the floating crane. This crane transports the girder units to the bridge location and places them on the top of the piers. This

way the bridges are likely to be completed faster. This is the first time that such a method of installation is adopted for any bridge in Kerala. Normally, in all other methods, the girders will be prestressed in the first stage and launched and erected. The second and third stage prestressing will be done at site. But in this case, all stages of prestressing are done at the casting bed and the girder is erected in the final shape. As the box girders are cast and all the stages of prestressing are completed on land and the girders are float-launched, the girders can be placed in position wherever the pile caps are ready. This ensures uninterrupted progress of work. This way the construction will be faster.

## 4. Present Stage of the Project

The first box girder for the Ernakulam – Bolghatty Bridge was float-launched at 7 pm on 26 November 2002. Subsequently five more girders were launched and placed in position. This bridge needs 7 marine piles in total. Remaining two will be launched after the two adjacent cast-in-situ land piles are cast and prestressed.

For Bridge: 2, regular marine piling works commenced on 5 March 2002 and installation of liners for 37 piles have been completed. Thirty-five out of the sixty marine piles are concreted. Three pile caps are cast and the work on 2 is in progress. Two piers are completed. The first girder in this bridge was launched on 7 April 2003. Thus the work is progressing steadily.

Works of 8 land piles are completed. About 50 percent of the earth filling for road work in Vallarpadom is completed. Initial approach of filling of low-lying areas such as Ernakulam and Vypeen are completed. Filling for approach embankment at Ernakulam is also completed. Leveling of land at Bolghatty has been completed. Approach filling work has commenced.

## 5. Conclusions

This dream project of lakhs of people residing in the islands is progressing fast. In addition to providing the much needed communication links, this will open up vast expanse of vacant land for

development close to the city. This bridge is a pre requisite for the establishment of the Transshipment terminal at Vallarpadom Island under the active consideration of Cochin Port Trust and the Ministry of Surface Transport. Execution of this project is entrusted to Cochin Port Trust as a deposit work by GIDA. Under their strict and efficient technical supervision, the work is progressing as per schedule now. Strong support from the local public and also the political parties has come in handy for this project completion. All possible efforts are being made to complete this self-supporting project successfully.

*\* Town Planner, Goshree Islands Development Authority, Kerala*

#### **Call for Papers and News Items**

*The Editor requests members to send articles for inclusion in the Journal and Newsletters. Chairpersons and Secretaries of Regional Chapters are particularly requested to send highlights of their activities.*

*Articles of the Journal may be sent as a soft copy (Ms-Word) as well as hard copy. Items for Newsletter can be e-mailed to: [itpidel@giasdl01.vsnl.net.in](mailto:itpidel@giasdl01.vsnl.net.in)*

*Editor*

*Continued from Page 16*

Since November 1999, Shri Ribeiro is working as the Director in the Association of Urban Management and Development Authorities (AMDA) – an apex body active in providing capacity building support to its large number of members.

In TCPO, Shri Ribeiro guided and supervised the work of Integrated Urban Development Project (IUDP), Integrated Development of Small and Medium Towns (IDSMT); urban development and urban renewal programmes; Urban Basic Services (UBS) programmes; Environmental Improvement of Urban Slums (EIUS) schemes; study of integrated transport, industrial location policies and programmes; monitoring of urban land policies; development of new townships for public sector and redevelopment of old townships of DVC; formulation of the planning standard for

the project townships; development of centers of tourism of archaeological and cultural heritage interest; development of urban and regional information system; research and training programmes-undertaking core research studies, advising the Ministry of Urban Development and state planning departments in physical, socio-economic and regional planning development; consultancy work providing expertise in the field of urban planning and design to state and local governments, public and semi-public undertakings.

In DDA, as Commissioner Planning (1979-86), Shri Ribeiro took the onerous task of complete reorganization of the planning Department to take up many new responsibilities, including the preparation of the Perspective Plan. He, very ably led a team of senior town planners with an array of experts on transport, infrastructure, water resources from outside DDA and brought out the publication of the draft of the master Plan for Delhi Perspective 2001, in the year 1985.

His other achievements include: National experiences with shelter delivery for the poorest group in Urban India for UNCHS (1994); Settlement upgrading at Hyderabad / Visakhapatnam for Government of Andhra Pradesh through Duncan Macneill Group (1995); Review and Reassessment of Urban Development and Planning Regulations under the prevailing environment of developing countries of the Asian Region for UNCHS (1998); A concept plan for the Southern Karnataka Region and Structure Plan for Bangalore Metropolitan Region, as Deputy Team Leader for GHK International, UK, (1998); 10 type designs for construction of around 1000 primary schools and six type designs for construction of around 400 secondary schools in cyclone affected districts of Orissa for the Prime Minister Office (PMO). These have since been implemented (2000); Design of a 500-bedded teaching hospital in earthquake affected district of Bhuj in Gujarat for PMO. The first phase has since been implemented (2001); A study on Land Development Policy: Issues and option for Delhi Development Authority (2002);

A programme for strengthening urban planning and development skills for the Kolkata Municipal Corporation (2003).

Shri Ribeiro's capacity to discharge the responsibilities of a vast number of posts is enviable; which has enabled him to gain rich experience in the fields over these years. Academically, too, he has made a good contribution to the literature on urban planning. He has published a large number of papers, presented at national and international fora, relating to urbanization, urban development and urban management in India; integrated development of small towns, their role in human settlement system in India; policy and strategy planning, regional planning; metropolitan planning; transportation; tourism; housing; urban land policies and land use control measures; urban conservation and rehabilitation, building and sites of archaeological, historical and architectural significance. He also authored the chapter on India in the book entitled 'Urban and Regional Planning and Development in the Commonwealth' published by Howell publications (UK), (1988), Improved Sanitation and Environmental Health Conditions – an Evaluation of Sulabh International Low cost Sanitation in Bihar – Monograph for UNCHS Year for the Homeless, (1986); Future of the National Capital Region; Technology for Development: Impacts on Asian Culture - a case study of Planning and Development of Chandigarh: its impacts in India; Urban Growth Trends in India and Role of Central, State and Local Governments. These can be used, with profit, both by the teaching staff and working professionals as well.

Shri Edgar Francis Noel Ribeiro has a long and variegated work experience; he is as active after his retirement from government service as he was before; and has emerged as a respected professional in the field of urban planning; respected not only by his professional colleagues but also alike by the bureaucrats and other experts in related fields. He remains an active urban planner to this day.

*Contributed by Shri Abdul Qaiyum, Former Town and Country Planner, TCPO.*

## KNOW YOUR PRESIDENT



**Shri E.F.N.Ribeiro**

Shri Edgar Francis Noel Ribeiro is an eminent urban planner, urban designer and conservationist; served various national expert groups and international bodies related to urban, regional and human settlement planning. He was born on 25<sup>th</sup> December 1930 in Poona; had his early education at St. Xavier School and St. Xavier College, Bombay; did his architecture from Sir J.J School of Art, Bombay in 1957 and Town Planning from the University of Manchester (UK), in 1960. He is the Fellow of the Institute of Town Planners, India; has been Member of its Council for a number of years, Secretary General for two years and President thrice. He has also served on its various technical committees and even today takes full interest in the activities and development of the Institute.

He was Associate of Royal Institute of British Architects (ARIBA), 1959 to 1980; Fellow of Royal Town Planning Institute, UK, (FRTPI), 1970 to 1980. He is Fellow of Indian Institute of Architects (FIIA), 1990 onwards; Fellow of Economic Development Institute (World Bank, Washington), 1979 onwards.

He was Vice-President of the International Society of City and Regional Planners (ISOCARP), a non-government organization with headquarters at the

Hague, Netherlands, (1985-92). In this capacity he successfully organized its 23<sup>rd</sup> Congress in Delhi in December 1987. The main theme of the Congress was "Planning Actions for Shelter for the Homeless". Over 200 planners from about 40 countries participated in the Congress.

He was Advisor, through the School of Planning and Architecture, New Delhi, to the Institution of Engineers, Nepal and the University of Trondheim, Norway on introducing a post-graduate programme in urban and regional planning in Nepal (1992-95), Member of the Planning Commission working Group on Urban Development for the fifth and sixth Five Year Plans; Member of the Environment Assessment Committee on Tourism and Transport Infrastructure, Ministry of Environment and Forests, (1992-1994 and 1998-2000) and, Member of its Conservation Committee, 1993-96; Chairman of the Indian National Committee, International Council on Monuments and Sites – ICOMOS (1990-95); Member of the Governing Council of Indian Trust for Art and Cultural Heritage – INTACH, (1989-93); and Convener of Delhi Chapter of INTACH (1988-93); Technical Member of the National Capital Region Planning Board (1985-88); and, Advisor (1995-98); Technical Member of Delhi Development Authority (1983-88); Member of Executive Council of University of Pondicherry (1993-96); and, Member of Research Council, Central Building Research Institute – CBRI (1991-97).

He is the Founder Member of the Center for Urban Poverty Alleviation (1994); Life Member of the Indian Institute of Public Administration – IIPA (1981); Chairman of the Society for Delhi Development Studies New Delhi, (1983); All India Board of Architecture and Town Planning Education of the AICTE (from August 2003).

After qualifying, Shri Ribeiro worked in England with the State and Lanchashire Council (1960-62). He joined the Town and Country Planning Organisation (TCPO), Government of India in 1962 as Associate Town and Country Planner and served the Central Government for about 26 years in various capacities. He was on deputation to the Government of Goa, Daman and Diu as a Senior Town Planner from March 1965 to June 1967. He was promoted to the post of Additional Town and Country Planner in TCPO, Government of India in July 1967. He worked as Town and Country Planner, Design Groups, Ministry of Works and Housing, Government of India (1972-75), Architect Planner, TCPO, (1975-79), Planning Commissioner, Delhi Development Authority, (1979-1983). He was appointed Chief Planner, Town and Country Planning Organisation in April 1983, which post he held for about six years till his superannuation in December, 1988. During this period he was Consultant, Development Control, Government of Jamaica through UNCHS from January 1986 to July 1986.

After his retirement from TCPO, he joined the School of Planning and Architecture, New Delhi as its Director, (September 1989 to July 1992); Head of Architectural Heritage, INTACH (January 1989 to August 1989) and Executive Director, Indian National Trust for Art and Cultural Heritage, Delhi (Aug. 1992 to Dec. 1993); Director, Special Projects, Duncan Macneill Group, Delhi (1994-97); Deputy Team Leader, GHK International (UK) for the Planning of Bangalore Sub-Region (1997-98). Shri Ribeiro is the Principal partner of the firm "E.F.N. Ribeiro Associates", a group of urban planners, architects, landscape architect and conservation architects, 1997.

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