1. INTRODUCTION

Developmental Plan may be defined as a perspective and vision for the future development of any location where in, the focus is on infrastructure development to upgrade the quality of life, be it a city, a region, a state or a country. The City Development Plan (CDP) is the outcome of a study, based on invaluable inputs, by the researcher, received from the various stakeholders associated with the development of the city, which truly reflects the vision of the citizens, the poor and the slum dwellers and the officers who are determined to make any city a futuristic city in the next few years. It involves studying the current stage of city’s development, setting out the direction for change, identifying the thrust areas and suggesting the alternative strategies and interventions for bringing in the required change. The CDP identifies the infrastructure projects to be implemented during the study duration across various urban sectors along with the proposed implementation mechanism including the Private Sector Participation (PSP) strategy. This research work has been divided into eight chapters, each dealing with a separate facet of the city and services of the city. The final chapters deal with the vision and strategy, financing plan and institutional reforms which are at the heart of sustainable development. The data collected from secondary sources and through interactive sessions/ interviews was analysed to make a realistic assessment of where the city is and the direction in which it has been moving. An analysis of the Kanpur City’s existing situation with respect to demography, economic activities, land use, poverty, urban infrastructure, and environment, institutional and financial aspects is to be carried out to see its implications for service delivery and urban management. Kanpur is a metropolitan city, sprawling over an area of 260 sq km. Kanpur is the biggest city of the State of Uttar Pradesh and is main centre of commercial and industrial and educational activities. According to the census 2001, Kanpur has a population of 25.51 lakhs. It is administratively divided into 6 zones and 110 wards with an average ward population range of 19000 to 26000. The average annual growth of population is 3.5 percent during the period 1991-2001 from the average annual growth rate of 2.6 percent in the previous decade (1981-91). One of the factors for this kind of growth can be higher number of in-migration to Kanpur City from other areas. As per the simple graph method, proposed population is 48 lakhs in 2031 which means that another Kanpur will be added in next 25 years. The average population density in Kanpur is 97.56 persons per hectare. The density in core area is six times higher than the outer area. Therefore, need is felt to decongest the inner core area to improve the quality of life.
The strategy for planned development of Kanpur shall be through speedy development of planned townships, stimulating housing development through public –private partnership, improvement in quality of KDA/UPHB housing, reservation of 25 percent area for EWS housing to avoid formation of new slums, location and demand led construction of EWS housing, differential pricing in mixed land use areas and outsourcing approval of building plans and granting completion certificates. KDA has proposed to develop 10,000 acres to accommodate 16 lakh by 2021. The new development will be in Gangotri Township which will be developed across Ganges and close to civil lines, Hi tech city over 5000 acre including 1800 acres by Sahara, 2500 acre for New Kanpur city towards Bithoor road and two housing projects of UPHB of 1350 acres and 1500 acres towards western side of Kanpur. This research work shall come out with some valuable results which will certainly improve the overall scenario of the city in general and the citizens in particular.

The City Development Plan (CDP) may be the culmination of a study which is based on invaluable inputs the researcher receives from the various stakeholders associated with the development of the city, which truly reflects the vision of the citizens, the poor and the slum dwellers and the officers who are determined to make any city a futuristic city in the next few years. It involves studying the current stage of city’s development, setting out the direction for change, identifying the thrust areas and suggesting the alternative strategies and interventions for bringing in the required change. The CDP identifies the infrastructure projects to be implemented during the study duration across various urban sectors along with the proposed implementation mechanism including the Private Sector Participation (PSP) strategy. This research work has been divided into eight chapters, each dealing with a separate facet of the city and services of the city. The final chapters deal with the vision and strategy, financing plan and institutional reforms which are at the heart of sustainable development. The data collected from secondary sources and through interactive sessions/ interviews was analysed to make a realistic assessment of where the city is and the direction in which it has been moving. An analysis of the Kanpur City’s existing situation with respect to demography, economic activities, land use, poverty, urban infrastructure, and environment, institutional and financial aspects is to be carried out to see its implications for service delivery and urban management.

Kanpur is a metropolitan city, sprawling over an area of 260 sq km. Kanpur is the biggest city of the State of Uttar Pradesh and is main centre of commercial and industrial and educational activities. According to the census 2001, Kanpur has a population of 25.51 lakhs. It is administratively divided into 6 zones and 110 wards with an average ward population
range of 19000 to 26000. The average annual growth of population is 3.5 percent during the period 1991-2001 from the average annual growth rate of 2.6 percent in the previous decade (1981-91). One of the factors for this kind of growth can be higher number of in-migration to Kanpur City from other areas. As per the simple graph method, proposed population is 48 lakhs in 2031 which means that another Kanpur will be added in next 25 years. The average population density in Kanpur is 97.56 persons per hectare. The density in core area is six times higher than the outer area. Therefore, need is felt to decongest the inner core area to improve the quality of life.

The strategy for planned development will be speedy development of planned townships, stimulating housing development through public –private partnership, improvement in quality of KDA/UPHB housing, reservation of 25 percent area for EWS housing to avoid formation of new slums, location and demand led construction of EWS housing, differential pricing in mixed land use areas and outsourcing approval of building plans and granting completion certificates. KDA has proposed to develop 10,000 acres to accommodate 16 lakh by 2021. The new development will be in Gangotri Township which will be developed across Ganges and close to civil lines, Hi tech city over 5000 acre including 1800 acres by Sahara, 2500 acre for New Kanpur city towards Bithoor road and two housing projects of UPHB of 1350 acres and 1500 acres towards western side of Kanpur.

The strategy is to green the parks with the involvement of RWAs, development of water bodies, green belts e.g. Kidwai Nagar, rain water harvesting (1.5 lakh liters already saved), introduction of CNG buses, developing the locations for weekly markets and shifting of cattle colonies. According to census 2001, the slum population was 3.68 lakh i.e. 14.5 percent of total population in 390 slums. As per the survey conducted by D.U.D.A in 1997-98, the population was 4,19,859 and total households were 98,208 whereas slum population is about 5.0 lakh in 2006 as per K.N.N. estimate, which is twenty percent of total population. A large number of below poverty line (BPL) population (about 60%) also live -in slums. 66 percent population is below 35 years old. This section has rising aspirations which need to be addressed. Out of total slum population, 64% (2,69,427) are illiterate whereas only 35.8% (1,50,432) are literates, More than 40 percent are self employed. Majority of households i.e. more than 51 percent live in Kutchta Houses made of grass, mud etc. and jhuggi jhopri’s. Majority of house holds (55%) get water from public stand posts and only 19 percent have individual taps. Presently, access to sanitation services is markedly less than access to other basic services. Majority of households use public toilets followed by households using
individual flush. Even then open defecation is still at a large scale i.e. 25 percentage of the slum households openly defecate. Slums are classified into two categories for planning purposes: slums which are requiring relocation and those which can be improved in-situ.

There should be separate government policy for dealing with the slums located at different type of land i.e. private land (hata land), public land (KDA, KNN, Railway, Gram Samaj, Irrigation, Nazul land), combined land of 2-3 authorities (KDA, KNN and railway land) and those slums required or not required for development project. Funds will be provided for improving basic ser vices to slums not to be relocated (water, sewers, public toilets, roads and improving houses) and in-situ development by constructing multi-storey housing on Pune style and undertaking a massive EWS housing initiative successful by demand led EWS housing with proper connectivity. The Community Development Societies (CDS) will be actively involved through various P-P-P initiatives. The Strategy to empower slum dwellers will be relocation of slums dwellers by adopting consultative process, encouraging the formation of micro credit organisations, construction of community toilets as per their need and with due consultation, allowing CDS to bid for O&M of community toilets, IEC activities for sensitizing on hygiene, SWM and sanitation, involvement of CDS in planning, implementation and monitoring of infrastructure projects to improve ownership, proper maintenance of community centres and further construction as per demand and motivating slum dwellers to use services like piped water, toilets and electricity and pay for their use.

The city is predominantly dependent upon private buses and tempos for the intra-city passenger travel. There are approximately 80 private buses and 980 auto rickshaws and tempos plying in the city. U.P.S.R.T.C has ordered for 108 new CNG buses to replace old fleet of buses. 1000 new CNG taxi permit has been given. The maximum numbers of vehicles registration are of two wheelers from 1999 to 2006 followed by cars. The overall traffic situation in Kanpur is chaotic, roads are overloaded. The railway line between Kanpur and Farrukhabad divides the city into north and south city and rail level crossing falls between main Kanpur city and south city due to which frequent traffic jam is seen all along the G.T. road and traffic movement is restricted. Mixed traffic results in low corridor speed. There are poor intersection geometrics and signaling system, inadequate parking facilities. There is no proper alighting and boarding facility. The strategy required is segregation of traffic to improve speed, enforcement of discipline in tempos regarding boarding and alighting points, strict checking of polluting vehicles to reduce pollution, building consensus for removal of encroachments and undertaking a drive on inculcating traffic sense. The works proposed for
integrated development of transport are integrated development of 116 Kms of roads including 53 Kms of PWD roads, flyovers at Bada Chauraha, Vijay Nagar Chauraha and Guthaia Crossing, ROBs at Jarib Chauki, kalyanpur, shyannagar and Dadanagar, Bridge over Ganges to connect Gangotri township, Bus terminals at Jhakarkatti, Chunnniganj and Azad Nagar and development of multi-storey parking for Birhana road, Naveen market, Murray company bridge and Motijheel – Swaroop Nagar area.

The main source of surface water in the city is from the catchments of Ganga River and Pandu River. The total water supply requirement is 600 mld but only 385 mld of potable water is being supplied. The total supply from treatment plants is about 255 mld water (210 mld raw water from Bhaironghat pumping station and 45 mld from Lower Ganga Canal) and approximately 130 mld water is drawn from groundwater comprising of 80 mld from tube wells (about 135) and 50 mld from hand pumps (about 9830). The availability of water is adequate but distribution system needs improvement. Main issues are that numbers of connection is not increasing due to excess use of ground water, low pressure and unreliable service, low utilization due to old and leaky system, Inadequate funds for O&M. The need is felt to expand distribution as demand of 464 mld will rise to 860 mld by 2031. The emphasis will be on improving water supply distribution for the inner core in phase 1 (Rs 319 cr). This will comprise of replacing old and leaky pipes in inner core area, renovation of the zonal pumping stations and improving capacity, providing for inter-connection of various water treatment plants to balance shortfall in capacities. Additional WTPs and feeder mains to connect to outer colonies will be considered in phase 2 (Rs 694 cr).

The source of sewer is mostly from domestic households but the waste generated from industries also flow into sewers. The present arrangements segregate industrial effluents from domestic sewerage for sewerage treatment plants. The industrial units in Panki and Dada Nagar industrial area also discharge industrial effluents, which finally flows in River Pandu through three Nalas, flowing north to South in South of Kanpur city. Current coverage of sewer system is around 60 percent and load is 360 mld. In 1997, total amount of waste water measured in drains and at the STPs was about 370 mld of which 160 mld was intercepted under GAP-1.

At present inflow of treatment plants is 63 mld and only 17 percent of the total waste water generated. Main issues related to sewerage are mixing of storm water drains with sewage increases load on STPs, old sewers in inner core area unable to carry current load, damaged and leaky and unsatisfactory arrangements for treating tanneries and industrial effluents. The renovation of inner core sewers using trench less technologies, segregation of
storm water and sewers to avoid choking of sewers, completion of works under GAP-II, construction of decentralized STP in new colonies by UPHB will be undertaken in phase-I (Rs 297 crore). In phase-II (Rs 3799 crore), main and branch trunks will be covered outlying areas and construction of additional STP for increased population. Kanpur city is habituated between two rivers Ganges on north and Pandu River on south. There are 17 nalis discharging wastewater in Ganga over a stretch of 20 KM from Bithoor downstream to Jajmou. Out of all Nala, Sisamau Nala has the biggest catchments area of 1985 hectares. All the Nalas, discharging in Ganga River have been tapped except Sisamau. Under the GAP (Ganga Action Plan) Phase -II, Sisamau nala, the largest nala in Kanpur City, presently carrying a flow of around 138 mld will be diverted for treatment.

At present waste generation in the city is around 1500 MT presently. Apart from solid waste generated by households, commercial establishments and institutions, Kanpur also has a number of industries and other businesses that generate different type of waste such as biomedical waste, sludge, buffing and other waste produced by tanneries in Jajmou area, industrial waste produced by textile, rubber and other industries operating in the city etc. The main issues are outdated equipment causing unreliable service, inadequate bins, no segregation of waste and proper composting/SWM disposal arrangement, non-operative treatment facilities of tannery waste. The strategy would be introducing house to house collection and user charge, improving reliability by replacing old equipment, improving efficiency by transfer stations and providing tricycles, provide for a Treatment/composting plant, outsource an integrated SWM and conservancy service on PPP basis.

It is now imperative to make Kanpur a clean and healthy city with high quality infrastructure such as better roads, airport, and basic services so that it is recognized as a premier city of U.P. and an environment which attracts people and develops business. The government machinery should be efficient, effective, accountable and transparent by adopting customer oriented approach to improve confidence of entrepreneurs and encourage them to come forward for P-P-P schemes. In Kanpur, the main institutions are Kanpur Nagar Nigam, Kanpur Jal Sansthan, U.P. Jal Nigam and Kanpur Development Authority. Kanpur Nagar Nigam is administered under the Uttar Pradesh Municipal Corporation Adhiniyam, 1959. The strength of the council is 110 in addition to the Mayor. The corporation is divided into six zones and each zone is headed by an Assistant Commissioner. The inner core area of Kanpur comprises of 67 wards out of total of 110 wards. The corporation is divided into two wings, viz. elected wing and the administrative wing. The administrative wing of the corporation is
headed by a Municipal Commissioner appointed by state government and supported by two Add. Commissioners also appointed by the state government.

The main sources of revenue of KNN are taxes (mainly property), license fees, rent of the municipal properties, interest, etc. The total receipt on revenue account including grants-in-aid has been estimated by KNN at Rs.193.25 crores and capital receipts are expected to be Rs.6.90 crores for the year 2006-07. Kanpur Nagar Nigam’s financial health needs urgent improvement. Though the balance sheet shows a small surplus, it is not true representation as accounts are maintained on cash basis. The institution is unable to pay even pension, PF etc. and has outstanding liabilities of nearly Rs 90 crores. Hence there is need to improve both revenues and cut down on costs.