

## Urban governance through people's participation and micro planning with the use of Geographical Information System by Kolkata metropolitan development authority

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Since ages the humanity is trying to develop its surrounding by a most suitable & adoptable way required for its community and thereby using almost all-possible information available to them. But sometimes there is a definite intervention of number of external agencies, which forces a deviation from the planned development. Result of such deviation is disastrous. In the developing countries like India there can be innumerable examples of such deviation and a catastrophic result in its development scenario. Aphorism is the name of the game, which has more or less ruined the planned development in urban area, especially in Residential, Commercial and Industrial sectors. A plan without a resource evaluation and execution of such plan without assessing the socio-economic parameters of the community had placed the entire development procedure in a point of no return. Incidentally today's Regional or Micro planner has to start thinking and executing his plan from this level. In doing so, the prime requirement is a Statutory and Legal Authority of Planning and then the Resource Base of Information of its development factors. This information system will be the base on which the planning will be pillared. Numbers of conventional technologies are readily available, but the present system of adopting Geographic Information System has made the task simpler and realistic. This system combines the location details of any elements with the resource available within such element. More information and more synthesis make the planning more dynamic. An updateable visual interactive approach is the real advantage of a Geographic Information System.

Analyzing the entire system from a planning angle, the involvement of city managers become more essential for its sustainability. A language commonly spoken and used by them during their planning procedure should form the base for their involvement. Thereby it may be required for a transfer of technology from Corporate Sector to Development Sector in Planning and make the system acceptable to all. A KMDA approach and experiences may be a good example for such adoption when both the external agencies and corporate house come closer to operate with local level planning through a legally equipped Development Authority like KMDA. Being more specific in certain basic areas of development like Health, Education & Infrastructure to Conservation of Heritage and

Environment, this can play a major role in the process of progressive & sustainable development of the entire community

The State of West Bengal is one of the highly urban states of India with 27.5% of total population residing in various urban areas in 2001. By this index of urbanisation of West Bengal position is 6th among the industrially advanced State of India. Rate of growth of urban population between 1991-2001 has been 20.2%, the total urban population registering an increase from 18.62 millions in 1991 to 22.5 million in 2001. One of the unique features of urbanization in the state has been that of high urban residential density. The percentage of urban population living in Class-I town of West Bengal each that of 1 lakh and above was 81.7% in 1991 as against 65.2% for India. In terms of absolute population, West Bengal occupies the 4<sup>th</sup> position next to U.P, Maharastra and Tamil Nadu accordingly to 2001.

Being ceased of problems and challenges, the State Govt. was initiated a number of policy intervention and design a number of urban development strategies. The state Govt. had taken a conscious policy decision of dispersing all urban growth across the state through a number of strategies and reforms both within and outside the domain of urban development. The State Govt. has also assigned the priority to develop of small and medium towns all over the state. As a matter of policy the State Govt. introduced the decentralization paradigm of planning and development both rural and urban areas. With a view to making the same operational, the state Govt. introduces decentralization of democratic governance in all units of rural and urban local self Governments. A number of legislative and institutional reforms have been carried out by the State Govt. to support and sustain the paradigm of decentralization. The State Govt. realizes that mere devolution powers and functions to the urban local bodies without corresponding up gradation of capacities of Urban Local Bodies would be self defeating. In this context, the Ministry of Urban Development and Municipal Affairs of Govt of West Bengal has taken a conscious decision of extending e-Governance to the level of Urban Local Bodies. This would not only provide and transparent administration and management, but also help of much improved planning and design of all desired intervention. It has been decided that Geographical Information System would be installed across all Urban Local Bodies. The pilot GIS effort in a few municipal bodies has yielded interesting useful results. The use of Urban GIS of Urban West Bengal is just about two years old. Nevertheless the independence has matured fast and the technology has gain a unique design of being used more for a social purpose than for the corporate ends. The use of GIS in Urban West Bengal has

aimed at helping decentralization Planning of ULBs' to adjustment of self sufficiency in municipalities with socio-economic development as a final gain. It has also achieved in reinforcing of participatory approach in the entire functioning of Municipal administration. This is quite distinct from what GIS has been doing earlier in National and International level. The application of GIS with people's participation in every level of the development has not only help the state to keep ahead with the changing times , but has become a handling tools in the context of recent 74<sup>th</sup> Amendment in the Indian Constitution. Earlier instead of a theoretical three tier Govt. the Municipal Governance actually was a selecting extension of 2<sup>nd</sup> tier of the State Govt. As a matter of fact throughout the country including West Bengal Municipalities always had to depend on the State Govt. for their existence at the base. The

constitution has given the people to power and the authority to implement their own plan independently. The GIS technology has provided the local municipality the confidence and the ability to execute the powers acquired from the 74<sup>th</sup> Amendments. So long the adequate information, the administration, in spite of its uniqueness, could not precede much.

This information based strategy and management deals are brought a new concept in the Urban Development of West Bengal. The municipal data bank which gives computerization updated special information form all the holdings of all the wards , all the infrastructural details( roads, pipelines, drainage, stand point, lamp post etc.). All important places and public utilities along with information's on the non spatial attributes all the owners house takes, evaluates rental status, family numbers, health education, infrastructural availability, structural status of the building, land use etc. etc. The municipal data bank, created with the help of infrastructure and the human resources available within the Municipality in a total digital format, essentially guides the Municipality for E Governance in the Urban West Bengal. This has been conceived and structured by Kolkata Metropolitan Development Authority in the middle of 2000n and by far has extended its work in 54 urban local bodies covering a population of little more than 93 Lacs.



















Their enthusiasm on the GIS implementation of the State is of people's participation, cost effectiveness, time savings and it is accepted towards a better management. The flexibilities of the development system accommodates the recent changes as well as the past management records. There are certain areas of distinct changes, which have been consciously adopted for making the technology simpler and adoptable for the people of the municipality, otherwise totally ignorant of the computer system of management. The technology thus created has been totally accepted by the group of elected councilors for their daily Governance and utilization in residing the policy in management. The susceptibility of the entire project is totally which the people of the Municipality who are increasing their revenue cost of more transparency in the system proper exposure and the use of the system at least a dozen of people have been trained while the project is son the implementation stage. Finally the information Kiosk with the introduction touch screen for the people's participation in every important matter has given a new dimension of the entire municipal management. Ward level plan identification of deficient areas, monitoring the health system of below poverty level families are among the few which is being practiced in the management of the Municipality. The beginning for a larger tomorrow has been made the entire process has to go a long way with the people of west Bengal participating in this revolutionary process of decentralized planning.

As the GIS mapping continues, the necessity of adopting the MIS (Management Information System) for giving the entire process a sense of totality has been a felt need. The present system of adopting certain schemes in any sectors of the society, (it could be water supply, education, self employment, sewerage & drainage, health, roads, recreation) either for development or maintenance, is often neither fully transparent nor contains any details regarding the beneficiaries. Though the financial accounting of the schemes is being maintained in a traditional manner to get the next allotment of the fund, the social cost benefit is not evaluated. The total amount of inflow of funds from different heads in the urban local bodies is quite substantial and an attempt for self-sustainability is seldom done. In order

to provide a better quality of life to the urban population, which is 28% of the total (highest in the country), introduction of front end use of MIS with back end use of GIS is being proposed. GIS will be information data bank with its geographical location and MIS will be the system to use such data bank for planning, execution and implementation of the entire development programme in a holistic manner.

Govt. of West Bengal initiated the implementation of GIS in Municipal Planning since July 2000 through KMDA, Dept. of UD & MA as the nodal functioning agency duly assisted by SUDA for non-KMA municipality. The primary information of all the holdings including tax, house structure, land use, availability of Urban facilities and all infrastructure details was put into digital format both in spatial & non spatial form. It is being used for day to day work of Tax demand notice & collection, preparation of ward level annual plan, identification of deficit area, evaluation of health indicators & Monitoring etc.

#### Activities of Municipality Concerning

-  Birth/Death Registration
  -  Building Approval
  -  Revenue/Taxation Record-Update/Modification/Deletion
  -  Commercial Complex Monitoring
  -  Trade License
  -  Health/Hospital Program Monitoring
  -  Development Project Monitoring
  -  Stores/Material Management
  -  Advertisement Planning
  -  Sports
  -  Cultural Affairs
  -  Fire Prevention & Protection
  -  Forms and Tender Notices
  -  Infrastructures (Water Supply, Drainage, Roads)
  -  Natural Calamities
  -  Municipal Solid Waste
  -  Building Rules
- Application Systems
-  Property Tax

- ❖ Water & Sewerage Tax
- ❖ Building Approvals
- ❖ Births & Deaths
- ❖ Health Information
- ❖ Dangerous & Offensive Trades

#### Community Services

- ❖ On-line Tax related payments, collections, title transfer etc.
- ❖ Grievance registration.
- ❖ Births & Deaths registration.
- ❖ Building plan approval status.
- ❖ Queries.

#### A FEW SALIENT FEATURES OF GIS IMPLEMENTATION IN KMDA

1. DECENTRALISED APPROACH.
2. PARTICIPATORY APPROACH.
3. ON LINE TRAINING.
4. CHEAPER COST.
5. TRANSFER OF TECHNOLOGY.
6. EMPHASIS ON DATABASE.
7. SUSTAINABILITY.
8. ENVIRONMENT ISSUES ESP TANKS AND OPEN SPACE.
9. INCREASE IN REVENUE THROUGH MUNICIPAL GIS.
10. CONTINUOUS INTERACTION WITH BENEFICIARIES.
11. CONFIDENCE OF FUNDING AGENCIES.

#### **SUSTAINABILITY**

Some of the key elements that have contributed towards the sustainability of the project are:

1. The wide participation of the people, the municipal staff as well as the elected councillors together with the innovative use of technology ensured its low cost and local ownership both of the data as well as the process. Another key factor was ensuring the immediacy of useful results to the local body. These could be used to increase the tax revenue of the municipality and consequently ensure further support to this initiative.
2. There is a great demand for expansion of this project to cover all the remaining ULBs. Some ULBs are taking their own initiative and have started work.
3. The initiative is being documented. A brochure in Bengali and English for Councillors, a brochure in Bengali and English for the general public. Two other documents are under preparation.
4. The initiative catered to the needs of all segments of the population – quicker approvals, objective basis for tax assessment.

5. Focus on improving services for the disadvantaged sections by identification of families and households where there is a deficiency of service or lack of utilization of a service. Further, mobilizing municipal and government functionaries to reach out to these identified families/households for ensuring utilization of that service, and in some instances initiating advance action for the protection of the health of the mother and the child.

### **LESSONS LEARNED**

Begin from where the municipality is, that is, what are the strengths and constraints of a municipality and move to the objective. The participatory processes of building up database and maps are as important as the final products.

Secondly, the work must be done in the premises of the municipality and with their own staff. The elected representatives and the staff must be taken into full confidence and be fully involved at all stages of the project. The more the elected representatives are involved in the different activities, the better they understand, own, implement and monitor the project. All work must be done on site and not away from the Municipal premises. This will destroy the myth that GIS is a highly technical project requiring a different level of skills and competencies.

Thirdly, the project must deliver results within a short span of time of 3 to 4 months. Projects, which are too long in delivering, run the risk of losing the primary stakeholders. The results must prove useful to the primary stakeholders, that is the Municipality and their immediate use of these results will provide the project with the desired political and administrative support.

### **TRANSFERABILITY**

Workshops and meetings were organized at the municipal level, as well as at the divisional level to sensitize and exchange ideas on the project. This enabled new participating municipalities to learn what others were doing, the successes and achievements of the work being carried out as well as moral support to the implementing agencies.

Documentation was given high priority. Different municipalities were requested to prepared their own documents and some did it themselves. This sharing and presentation of information was a valuable tool for the spread of the project. In addition, process documentation was also done with a two fold purpose: to share information widely as well as to build up a set of training materials.

### **CONCLUSION**

The objectives of the project on urban governance in West Bengal are to provide an environment conducive to socio-economic growth and ensure delivery of services to all sections of the population in order to reduce inequalities in opportunity among residents. At the same time, the administration must attempt to maintain maximum possible fiscal sustainability through efficient revenue generation and collection. E-governance, is the use of information technology to deliver public services in a much more convenient, people-oriented, cost-effective, and altogether different and better way.

The key specific objective of the project is to establish a GIS/MIS data-base in all 50 Municipalities/Municipal Corporations. The key strategy is to introduce GIS in all the municipalities in West Bengal to facilitate decentralized planning involving community with emphasis on social sectors and disadvantaged groups especially women and children.

Two significant achievements are the transition from animosity and fears of computers and computerization to a realization amongst councilors and municipal staff that technology can be used to improve the efficiency of the administration as well as the quality of life of the poor. A second important consequence is the change in people's perception of the local body – better and quicker service, reduction of corruption, greater transparency in decision-making and allocation of resources and a more people friendly government.