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## **Champion of Digital Empowerment**

An IAS of the 1978 batch, Ravi Sahai Saxena is currently serving as the Additional Chief Secretary – Department of Science & Technology, Govt of Gujarat.

He was a popular Collector and District Magistrate of District Kheda in Gujarat for his prompt and resolute action in resolving **law & order** situations, and in quelling violence on the spot in innumerable situations, which he handled personally shoulder to shoulder with the District police officials. He is known in that District also for **implementing projects with extraordinary speed** such as the one for a district level sports complex in 86 days to be utilised for the 7th Mini National Games by the School Games Federation of India in year1987. Another project was creating a complex for Collectors' office in Nadiad town in matter of a few months from conceptualisation.

He worked as the Director (Nuclear Power, Public Sector, & Personnel), Department of Atomic Energy, Government of India from 1989 to 1994. He successfully supervised pilot projects on extraction of Uranium from Phosphoric Acid and Copper Tailings with the help of BARC in the Dept of Atomic Energy, GOI and also resolved many strategic issues of Electronics Corporation (ECIL), Indian Rare Earths (IRE) and Nuclear Power Corporation of India (NPC).

He made significant contributions to the development of the Industrial and Economic infrastructure of Gujarat State first as Joint CEO in 1982 and later as the Vice Chairman & Managing Director of Gujarat Industrial Development Corporation between 1996 and 1999 and Gujarat Infrastructure Development Board (2000-01). He took the **bold initiative of winding up 13 Sick Mills of Gujarat State Textile Corporation — first such exercise in India**. As Vice Chairman & M.D. of GIDC, he set up Gujarat Cleaner Production Centre (GCPC) as well as GIDC — Roefel Institute of Management in Vapi. He developed Common Effluent Treatment Plants (CETP) across Gujarat and interacted closely with Asian Development Bank (ADB) for Public Sector Restructuring in Gujarat. He was **pioneer in developing a port based model of Industrial Development**. Much before the concept of SEZs was introduced to India, he initiated studies through KPMG consultants on SEZ law. . He structured and developed some of the most popular investment regions for chemical and petrochemical industries in Gujarat in the form of Jhagadia, Dahej, Lodhika and Vilayat industrial estates.

As the CEO of Gujarat Infrastructure Development Board, he structured Concession Agreements for Ports, Roads and Power Sector projects in the state and also prepared Infrastructure Development Plan for Gujarat on Public-Private-Partnership basis. He laid the foundations of the framework for the Public Private Partnership in economic infrastructure in the State of Gujarat.

He has made his mark as Secretary in Department's like Transport, Prohibition, Jails, Social Justice & Empowerment and Health as also Principal Secretary (Planning) for Gujarat State where he delivered new directions which are being tracked until now. He created Gujarat Social Infrastructure Development Board Society and the Commissionerate for Human Development in the Department of Planning, Government of Gujarat.

Saxena has been pursuing use of Information Technology in governance, right from the beginning of his career. As Collector & District Magistrate of Kheda (1985 – 88), he set up District Computer Center for **implementing Natural Resources Data Management System (NRDMS)** on pilot basis. He also deployed applications for monitoring the progress of the various projects undertaken by the District Planning Board. In 1989, as the Director (Nuclear Power), Department of Atomic Energy, he developed a computer-based Work Flow Management Systems for the Atomic Energy Department. In his current assignment as the Additional Chief Secretary to Government of Gujarat leading the Department of Science and Technology,, he has been working relentlessly to deploy computing in the applications of the government with a view to bringing greater efficiency and transparency.

After he took over the department of science & technology, he upgraded the ICT infrastructure in Gujarat and ended up creating the **most robust State Wide Area Network (SWAN)** in this part of the world. This connects almost 5000 offices across the length and breadth of the State , with more than 125,000 email addresses on its exchange server. This, along with the eGram network of Gujarat, which consists of 14,000 VSATS , is now serving about 50,000 nodes, thereby **making Gujarat the most connected state in the country**. He is now taking the state data center to next level of virtualised and cloud environment. His efforts have resulted in making Gujarat the only state in the country to have end-to-end IP based connectivity covering all 26 districts, 226 talukas and – through eGram – the 18000 villages of Gujarat.

He has also conceptualised a "Unified Communication System" for carrying voice, data and video to all offices of the State Government on its proprietary IP backbone ie GSWAN, thereby ensuring complete telepresence of every official of the State Government.

He is a champion of Digital Empowerment across the rural Gujarat as also its urban slums. He cautions that ICT revolution is creating a schism between the digitally connected and those who are deprived, which may be dangerous for society. He believes that by bridging the digital divide, the society will gradually move towards holistic inclusion where the health, education, food, drinking water, sanitation, housing and livelihood issues of the underserved will also get addressed. He has been advocating the need to spread the power of IT amongst the people at the bottom to ensure delivery of intended benefits to them. He has ensured the deployment of ICT up to the Gram Panchayat level and encouraged development of various e-governance initiatives & applications like e-Gram, e-Kalyan, GSWAN, Police Computerization(HDIITS), District Computerization (ATVT) and an Integrated System for real time fiscal management of the state (IFMS). He saw to the installation of computers and digital media equipment worth over Rs. 700 crores in 17000 village primary schools to enhance quality of education in the state, and absolutely deserves to be crowned person of the year.

In this freewheeling interview, **Ravi Sahai Saxena** tells us how Gujarat has conceived ICT as techno-social inclusive agent. Excerpts:

# The information and communication technology landscape in Gujarat has changed rapidly. What is your assessment of ICT sector in the state today?

The ICT sector within Gujarat is developing rapidly. We offer an investor-friendly environment, best-in-class infrastructure and several concessions and incentives to IT/ITES companies to set up shop here. We intend to incentivise not only the development of ICT but also development of electronics industry in the state much in line with the Govt of India's Triad of the Electronics Policies that proposes to create an ecosystem for manufacturing electronics. We are encouraging the setting up and development of semiconductor wafer fabs, chip designing, embedded software solutions and end to end electronics manufacturing industry.

As a result of the above, many large, medium and small ICT companies have already set up their facilities here and we will see more ICT companies coming to Gujarat in the near future.

Talking of eGovernance, Gujarat has been an early starter and as a result our citizens are already enjoying the benefits of interacting with the government and receiving government services from places closer to their homes and in some cases from their homes.

With a state-of-the-art eInfrastructure like GSWAN (Gujarat State Wide Area Network), SDC/MDCs (State Data Center), e-Gram, Gujarat has established a benchmark in primary sectors like Health, Education, Agriculture, Animal Husbandry, Food and Civil Supplies (FCS), Social Justice and Empowerment, Women and Child Welfare, Panchayats and Grievance Redressal. This robust eGovernance infrastructure has resulted in a connected & technologically empowered Gujarat.

State-wide Integrated Hospital Management System, e-Mamta (tracking mother and child health), Drugs Logistics Information System (Central Monitoring for Drugs Stock and Health Programs), 108-Emergency Helpline in health sector; Digital Teaching Content, Online Teachers Recruitment and Results, educational and skills oriented content broadcasting through satellite in education sector; crop management, fertilizers and seeds information, live interactions with Agriculture University scientists, livestock monitoring in agriculture sector; e-ration card, barcoded coupons, bio-metric based verification, stock monitoring and supply management in State wide Food and Civil Supplies sector, e-court, State Wide Attention on Grievances by Application of Technology(SWAGAT), are some of the key eGovernance initiatives which are simplifying the life of the common man in real sense.

In a nutshell, Gujarat has conceived ICT as techno-social inclusive agent.

#### What makes you so bullish about information and communication technology?

The growth witnessed on account of ICT in the last 3 decades surpasses the development of the entire human history. Mankind has not seen and will not see a revolution like what ICT has caused. ICT has completely changed the way we worked, the way we communicated, the way we paid our bills, the way we banked, the way we kept in touch with our near and dear ones, the way we searched for information, the way we entertained ourselves and the way we shopped. It has made our lives more independent, comfortable and productive and has brought in more transparency, efficiency and effectiveness.

Over the last two hundred years, 4 billion people in the developing world have been left behind, struggling to find answers to questions like how to stand up and be counted; how to get access to resources, health and education; how to compete; how to bridge the distance with their urban counterparts or those in the developed world!

They are posing a challenge to their governments to find ways to bring them at par with the people living in the developed world, a world which is more inclusive where all citizens have access to food, shelter, healthcare and education.

ICT is a key enabler for Inclusion. It is the only easy, effective and affordable tool which can

bridge the divide. This inclines me towards ICT and entices me towards the enormous opportunities that lie in the sector for innovation.

ICT if deployed universally can change the face of the earth, however if deployed partially, it can lead to intensive strife. The world must wake up & strive to close this divide before it is too late.

The future of ICT is exciting as we see more and more creativity & innovation driving this sector forward. A rise in smart devices and systems; advances in computational systems; new multimedia technology; the continuing evolution of social media; and a globally connected world. The ICT sector clearly underpins this future and national and international development.

#### What would be the best moments of your life? As a person – what are your hobbies?

Getting selected to serve the citizens of my country has been this far my favourite moment in life. I still recall the flavours and colours of my early life as a civil servant. Everyday there is a new assignment and everyday there is a new challenge ranging from regional language communication problem to application of law and order in the locality. Out of all the assignments that I undertook, I enjoy the current assignment the most as it directly affects all aspects of Governance which ranges from ensuring smooth administration across the state to guaranteeing each citizen their constitutional rights and a facility to avail public services closer to their homes.

Other memorable moments include the birth of both my children and my son's wedding. I enjoy reading articles on science & technology, governance, current affairs magazines etc. I also like experimenting with new gadgets. In fact I do a lot of reading on my mobile these days. Surfing the web, socialising and travelling are few other things I like doing in my spare time.

#### What would you count as your achievements?

I have been passionate about use of ICT in governance, right from the beginning of my career. Projects like NRDMS in 1983 in Kheda district, workflow and document management system in the department of atomic energy (1993), Infocity in 1999, rolling out the first website of Gujarat Government (1999), gujaratindia.com, are some of the milestones that were attained before taking up the current role in Department of Science & Technology.

At DST, ICT infrastructure upgradation to create the most robust State Wide Area Network in Asia and GIS integration are some noteworthy initiatives. We have integrated GIS data with existing databases with terrestrial mapping which has reduced physical efforts and complexities and brought in greater precision in decision making. Today with the help of geospatial databases, within a fraction of time, we are able to resolve diverse queries ranging from selection of landsite for Mega Infrastructure projects, Village level planning for MGNREGS & Watershed program, crop monitoring, irrigation and drain planning, alignments of roads, canals, underground pipelines, criteria based calculation of Land value (Jantri), identification and rights for agricultural activity in forest regions to landfill site identification for ULBs, considering all inter relevant/dependent parameters. This initiative has been recognised and appreciated nationally.



Saxena laid the foundations of the framework for the Public Private Partnership in economic infrastructure in Gujarat

Besides ICT, the effective management of the Gujarat Earthquake (2001) Rescue & Relief Work from Mumbai is something I am proud of. I am also happy about the work accomplished as the Collector & District Magistrate of Kheda between 1985 – 1988 and some bold decisions I took during my career like the winding up of 16 loss-making units of the Gujarat State Textile Corporation, first such exercise anywhere in India, which bore positive results.

I also feel content to see the organisations set up during my tenure, become an inherent part of the respective departments where they were created viz. Kutchh Mahila Vikas Sansthan (1988-89), Gujarat Cleaner Production Technology Center (1998), Bharuch Enviro Ltd (1998), Gujarat Industrial Security Force (1998), Roefel Institute of Management (Vapi – 1998), Infocity (1999), Infrastructure Finance Company Gujarat Ltd.(2000), Gujarat Social Infrastructure Development Board Society (2006), Commissionerate for Human Development (2006), Gujarat Medical Education & Research Society (2009) and BISAG Satellite Communication company (2012).

### What is your dream?

My dream is to see the consolidation of Government IT infrastructure for the entire country which should result in a Unified Government Cloud Structure and to live in a world without digital divide where the benefits of ICT are enjoyed by not only the well-off and the literate but also by the people living at the bottom of the pyramid.

# E-Governance of today would be the Governance of tomorrow.

That however requires that along with technology evolution the Government also reengineer its conventional procedures. Ten years down the line I see e-m-i-Governance getting converged into "The Governance". The existing infrastructure, procedures, network, technology, applications will work in unified environment where every requirement would be served as a service instead of an individual activity. However, adaptability and citizen engagement would still be a concern subject to policy level decision; I foresee the scenario as becoming an Open Government raising the possibilities for easier collaboration and effective citizen orientation which are the basic principles of democracy.