# Information Technology

### **E-Governance & Digital India**



There is an ever-increasing shift taking place from physical to the digital world. E-governance, since the early 90s, has taken on a broader dimension, using information technology for varied sectoral applications, encompassing connectivity, networking, setting up systems for processing information and delivering services. The Government of India has adopted a multipronged approach in promotion of e-Governance that includes development of human resources, promoting R&D and innovation, enhancing efficiency through digital services and ensuring a secure cyber space. It has also taken various initiatives including e-government, e-industry, e-innovation, e-security, e-inclusion etc. This has significantly enhanced India's role in Global Platforms of Internet Governance. Further, Digital India (DI), the recent initiative of Government of India is intended to transform India into a digitally empowered society and knowledge economy. Read on...



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#### Introduction

The world is moving fast to digital, cloud based Information and Communication Technology (ICT) applications with Internet of Things(IoT) becoming Internet of Everything(IoY). Governance in the digital world is transforming to be more innovative and transparent, by engaging people impacted by

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government policies in decision-making process. E-governance is application of ICT products, services, devices and solutions for improving services to citizens, civil society, private sector by facilitating public services and government administration to meet the growing aspirations of the citizens.

E-governance becomes effective only when it is backed by sound policy framework and creation of appropriate ICT architecture cum infrastructure to improve public services, maximising profitability of private sector business enterprises, high-quality and cost-effective customer relations management, optimising operational efficiency, safeguarding assets, better financial reporting and finding innovative solutions to complex emerging problems. In E-governance, citizens, media, technology experts, regulators, bureaucrats, academics and NGOs-all have a responsible role. Appropriate application of ICT controls aims at risk management, compliance and better governance, fostering accountability, transparency and trust. Collaborative technologies like social network play a significant role in two way communications between the governed and the government at different levels.

#### **Benefits of Technological Solutions**

Digital technologies provide maintenance of requisite relevant reliable complete database for good governance and better decision-making process. Application of ICT for creation and use of Big Data base for administration and governance is cost effective, powerful and objective enabling responsive functioning. ICT improves governance in India's three tier government structure enabling effective interaction, data sharing for problem resolution by Central government, governments of States/Union Territories, Urban Local Bodies and Panchayati Raj Institutions encompassing all its allied subordinate and attached offices, ministries and departments, government companies, autonomous bodies and the banking sector. ICT facilitates real time online information flow at every level, easing doing business and transforming government functioning with private sector, Non Government Organisations, unorganised sector and individual or group entrepreneurs. ICT facilitates two-way government to government, business to business, business to government, government to citizen communication based on shared information and intelligent use of data. Along with innovative methodology, new ways of doing things, ICT builds up knowledge-based community which can sustain good governance.

#### **Vision, Mission & Objectives**

Considering the significant role of ICT, the Government of India prepared its vision, mission and objectives on e-governance and can be accessed on the webpage of the Ministry of Communication and Information Technology quoted as under:

#### Vision

e-Development of India as the engine for transition into a developed nation and an empowered society.

#### Mission

To promote e-Governance for empowering citizens, promoting the inclusive and sustainable growth of the Electronics, IT & ITeS industries, enhancing India's role in Internet Governance, adopting a multipronged approach that includes development of human resources, promoting R&D and innovation, enhancing efficiency through digital services and ensuring a secure cyber space.

#### Objectives

e-Government: Providing e-infrastructure for delivery of e-services

e-Industry: Promotion of electronics hardware manufacturing and IT-ITeS industry

e-Innovation/R&D: Implementation of R&D Framework - Enabling creation of Innovation/ R&D Infrastructure in emerging areas of ICT&E/ Establishment of mechanism for R&D translation

e-Learning: Providing support for development of e-Skills and Knowledge network

e-Security: Securing India's cyber space

e-Inclusion: Promoting the use of ICT for more inclusive growth

Internet Governance: Enhancing India's role in Global Platforms of Internet Governance.

Ref: Website of Ministry of Communication & Information

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E-governance must inevitably lead to less government and more governance. Application Communication Information of correct Technology should capture the quintessence of good governance for sustainable development. The National e-Governance Programme was conceived as a centralised project monitored by the central government with decentralised implementation through the States and Union Territories. The responsibility of the Department of Electronics and Information Technology (DeitY) is to facilitate by providing necessary technical assistance to Ministries and Governments/Union Territories State for implementation of the component schemes of NeGP. The States and UTs are responsible for actual implementation of the plan. The Cabinet paper spelt out clearly the creation of right institutional mechanisms, core infrastructure with right policies, standards and legal framework for adaptation and channelising the private sector technical and financial resources into NeGP efforts.

The objectives of the government are no doubt indeed:-e-government, laudable e-industry. e-innovation, e-security, e-inclusion and Internet governance. The government wants to transform lives of the citizens by ICT applications in every possible domain to provide 'Simple, Moral, Accountable, Responsive and Transparent' (SMART) governance. When the Union Cabinet approved the e-governance project in May 2006, the primary vision was stated to "make all government services accessible to the common man in his locality, through common service delivery outlets and ensure efficiency, transparency and reliability of such services at affordable costs to realise the basic needs of the common man". The citizens should be entitled to good governance through Communication Information Technology applications.

#### **Attributes of Good Governance**

The attributes of good governance for sustainable development go beyond SMART governance. They are clearly articulated by UNDP. Firstly, there should be participation of all men and women in the decision-making process directly or through representatives. Secondly, the 'Rule of Law' must rule. This means rule according to law, rule under law and also rule according to 'higher' law, meaning thereby certain unwritten universally acceptable Currently, decision making process is very slow and many a time, subjected to best of the bureaucratic hunches and guesstimates. Transparency is possible when Big Data, despite its complexity, is used by ICT applications for the public good. Technologically right taxonomy and inter-operable architecture make ICT applications for governance easy. 277

'principles of fairness, morality, justice that transcend human legal system'. Thirdly, good governance is based on transparency ensuring free flow of information, accessible to the people concerned. Fourthly, institutions and processes must be for serving all stakeholders. Fifthly, good governance is based on evolving a broad consensus resolving conflicts based on what is in the best interests of the people. Sixthly, all men and women must have equal opportunities and level playing field to improve or maintain their well-being. Seventhly, governance infrastructure, processes and institutions must be efficient, effective and economic to produce best possible outcome from the resources. Eighthly, decision-makers in government must be accountable and civil society organisations accountable to the public and to the stakeholders. Ninthly, leaders and the public must act up, based on strategic vision, a broad and long-term perspective on human development, understanding the underlying historical, cultural and social complexities.

Any investment in the direction of ICT application needs to be perceived as a right investment; but the choice of appropriate technology required for the purpose, procurement decisions, project planning, implementation, monitoring, review, timely and economic, effective, efficient execution of the project, taking prompt corrective and preventive actions to achieve the envisaged outcome both in qualitative and quantitative parameters. In corporate or business enterprises, right application of technological solutions provides better enterprise risk management enhancing profitability and superior quality of corporate governance. When ICT is applied in the national level for the business government, citizens are benefited by good governance. Good governance becomes possible when risks and noncompliance issues are reduced to the minimum possible extent.

#### **Governance, Risk & Compliance Solutions**

Governance, Risk and Compliance (GRC) tools address integrated, enterprise risk and compliance management-if applied to business. When GRC solutions are applied to national, states, or urban rural local level governmental activities it can support good Governance. At corporate governance area, GRC solutions help to focus on Board of Directors' and management's structures, policies, processes and controls. GRC tools help governments and business enterprises in systematically addressing the entire gamut of risk management covering identification, assessment, mitigation, monitoring and managing risks. GRC tools are handy for both at governmental levels and at enterprise levels, to demonstrate its stakeholders to comply with applicable policies, procedures, laws, and regulations. GRC becomes an effective instrument for transforming the quality of governance, encompassing people, process, and technology. While helping to achieve the desired outcome, ICT facilitate to seamlessly absorb the changes happening from time to time. GRC tools can manage BIG governmental data for good governance.

Do governments at different levels in India maintain complete, reliable, relevant data base for good governance? Creation of essential database is an irreducible minimum prerequisite for proper analysis and analytics for improving the quality of decision-making. Creation of authentic databases is a key challenge for governments at different levels and various entities. Currently, the decision-making process is very slow and many a time, subjected to the best of the bureaucratic hunches and guesstimates. Transparency is possible when Big Data, despite its complexity, is used by ICT applications for the public good. Technologically right taxonomy and inter-operable architecture make ICT applications for governance easy.

#### **Digital India for E-Governance**

As part of e-governance, Digital India (DI) has been initiated. Digital India is intended to 'transform India into digitally empowered society and knowledge economy'. Digital India has three main focus domains categorised as Vision Areas: Infrastructure as a utility to Every Citizen; Governance and Services on Demand; and Digital Empowerment of Citizens. The first Vision Areainfrastructure as a utility makes use of high speed internet for providing cradle to grave digital, unique, online, authenticable identity. DI is aimed at mobile phone enabled banking transactions, easy access to services, safe and secure cyber space and sharable private space on a public cloud.

The second Vision Area, governance and services on demand is intended to enabling integrated governmental functioning capable of prompt service delivery available in a real time on online and mobile platform. All documents of citizens are to be made available on cloud, easing doing business with government and other entities, making financial transactions electronically and cashless, leveraging Geographical Information System, decision support systems for development.

The Vision Area 3 of DI is for digital empowerment of citizens. It is for facilitating universal digital literacy, universally accessible digital resources, enabling entire documentation available on cloud, providing collaborative digital platforms for participative governance ensuring portability of all entitlements through cloud.

The DI has clearly laid out nine pillars: The first pillar is creation of broadband information highways for rural, urban and integrating into the national information infrastructure, the Second pillar is for universal access to Mobile Connectivity covering all villages by 2018. The third pillar is 'Public Internet Access Programme' to provide Internet Access to rural areas for transforming governance through ITC applications aiming at government business process re-engineering, creating electronic big databases, workflow automation, public grievance redressal facility to be integrated to the three tiers of Indian government structure.

DI's Pillar four is all about e-governance-basically improving the functioning of the government by application of innovative technological products and simplifying the procedures and reducing the time taken for processing multifarious government activities and service delivery. E-governance is possible through business process re-engineering, creation of electronic databases, introducing

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workflow automation, automation in public grievance redressal to reduce response time. When government processes are re-engineered, government functioning will be expeditious aided by technological solutions for governance and thereby removing unwarranted steps and complexities in processing, reducing delay and improving efficiency and effectiveness in delivery of services.

Pillar five of DI is 'eKranti-Electronic Delivery of Services' making e-education, e-healthcare, and providing appropriate technological solutions for planning, farmers, security, financial inclusion and justice. Pillar six is intended for Information for all, facilitating online hosting of information and documents, pro actively engaging social media and web-based platforms to inform citizens as well as online messaging. Pillar seven is mainly concerned with electronic manufacturing schemes covering wide gamut of big ticket manufacturing items, skill development and government procurement. Pillar eight is targeted for using IT for creation of jobs and training. The focus is training people in smaller towns and villages, setting up Business Process Outsourcing, training service delivery agents, training rural workforce to cater to their needs. The ninth pillar is to create the IT platform for messages, government e-greetings and biometric attendance. Most of these digital India activities are in various stages of implementation. Every citizen and stakeholder has a definite role in the digital India technological landscape to make good governance a reality.

#### Conclusion

Governance is nowadays increasingly questioned by the disillusioned stakeholders including media on lacking transparency, economy, efficiency, equity ethical functioning. The strategy for governments is to achieve desired outcome by principled performance. This is possible only by using the right technological solutions and IT infrastructure for integrating governance, performance, internal control and compliance management. Such an exercise should be perfectly in tune with the strategy, policy, planning, factoring to reduce uncertainty, systemic, ethics and integrity risks and to transform processes, services and products towards desired quality and outcome. The big picture of governance framework should envelop holistically governance, risk management, compliance management, ethics and culture



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management and internal control to achieve performance outcome.

While setting the objectives, a good governance framework factors stakeholders expectations and incorporates the feedback received from internal and external stakeholders for formulating right policies and strategic planning. A corporate or nation may not be able reduce uncontrollable external risks coming from political, economic and environmental domains; but other risks like credit risk, ethical risk, fraud risk, compliance risk, bribery or corruption risk, privacy risk, security risk, financial reporting risk, performance risk and risk of theft, pilferage, eroding of value of assets can to quite an extent be controlled.

As demands of the stakeholders are increasing and the volume and complexity of functions, transactions and data becomes enormously complex, there is no way but to change the traditional mindset and 'siloed' approach of problem resolution compartmentally based on piecemeal poor information flow. ICT tools, if correctly utilised, will be capable to help integrating, organising and overseeing, detecting, preventing, monitoring and measuring, responding and resolving, and optimising corporate goals and governmental objectives. Technological solutions, if effectively used, can make possible sustainable development by reconciling the inherent economic, environmental, social conflicts. GRC tools help bringing better stakeholder confidence with enhanced transparency, accuracy, visibility, efficiency, reliability, responsiveness, accountability, predictability and prompt action. By providing controls ICT solutions and products can help, in prevention, detection and reduction of uncertainty, make operations cost effective, enhance quality management, resource management, legal compliance, support informed databased decision-making process, better business or governance reporting, credibility, branding and image building.