

# **INDIA: E-Readiness Assessment Report 2005**

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**For States/Union Territories**



## January 2007

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# Foreword

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We live in a world of constantly evolving Information Communications Technology and its enabling power. While India is leading country in the IT sector globally, the benefits of the IT revolution have not fully percolated to the everyday life of the common man, particularly those in rural areas. Information Communication Technologies (ICTs) can be one of the key enablers of citizen centric services delivery mechanism to create easily accessible interfaces such as one-stop, single-window, automated service delivery outlets or common public service centres, devoid of harassment or corruption, minimising waiting time and inconvenience to the public. ICTs can be used to reduce paper work, improve efficiency, transparency, accountability and expedite the decision making process. ICTs can also be used to break down barriers between departments and bring about 'anytime, anywhere' government services to the citizen.

However, using ICTs is not just a matter of installing hardware and buying relevant software. In order to reap its benefits, its users – government, businesses & citizens - must be e-ready i.e. be able to skilfully exploit the opportunities provided by ICTs. Over the past decade or so, we have seen islands of e-governance initiatives in the country at the National, State, district and even block level. These initiatives have helped these states gain a head start in e-Readiness. Objective assessment of e Readiness helps states evolve proactive policy and robust ICT infrastructure, to make giant strides towards creating information societies and participate in knowledge economy. Tamil Nadu for example, has used such assessments not only to remain a Leader State in the e-readiness index in the recent past but also to improve and retain its ranking within the Leader category from number 3 to 2.

This is the third report on e-Readiness Assessment of States and Union Territories. The first two Reports were well received. Gaining insights from the experience and the feedback, this year's Report brings in a few new dimensions – comparative analysis of state wise ranking over a three year period (2003-2005), state wise output and employment multipliers and state wise strategies based on the above two. The Report also examines, using the case study method, whether the e-Governance/ e-Readiness initiatives have integrated or empowered the marginalized section, the 'value addition' to information, the intermediate product has been maximum, the initiative is sustainable, scalable at sufficient pace and whether the initiative is profitable so that the private sector can become a partner of the development process.

The team of Department of Information Technology worked closely with the team of National Council of Applied Economic Research to conduct this study. The field level data was supplemented by secondary data provided by the state government and Union Territories.

We hope that this Report will be an effective decision support tool for the policy makers and will encourage knowledge sharing amongst the stakeholders at ministries and departments.

Dayanidhi Maran  
Minister of Communications & Information Technology  
Government of India

Date: January, 2007





# Message

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The last decade has seen major changes in our capacity to communicate and share information through new developments in Information and Communications Technologies (ICTs). Government investments in ICTs are primarily intended to provide information and services to citizens. At the national level, the National e-Governance Plan (NeGP) is a major initiative of the Government of India to take ICTs to the masses. The vision of the NeGP is to make government services accessible to the common man in his locality through common service delivery outlets and ensure efficiency, transparency and reliability of such services.

The term eGovernance refers to the process of using ICTs for automating both the internal operations of the government and its external interactions with citizens and businesses. The design and development of such complex solutions poses significant challenges. One of the biggest challenges is to ensure that the government, business and citizens are ready to use the technologies effectively. As such continuous assessment of readiness of the different stakeholders to participate in this scenario becomes critical.

The Department of Information Technology has been publishing the e Readiness Report for the past two years to enable informed decision making and policy formulation. The current Report has gone a step further and provides state wise suggestions to help states improve capacities to utilize ICTs.

The Report has been prepared with keen inputs from the different stakeholders and we hope that the efforts put in by the Department of Information Technology and National Council for Applied Economic Research will be of interest not only to the various government department and ministries but also to the business and academic community as well as the public at large.

Jainder Singh  
Secretary to Government of India  
Ministry of Communications & Information Technology  
Department of Information Technology





# Preface

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Information Communication Technologies (ICTs) have come to play a pivotal role in contemporary societies and even more so in government, which are the biggest collectors, users and disseminators of information. One of the areas in which ICT is having a profound impact is the way Governments function and the manner in which government services are made available to citizens. The need today is to provide citizen-centric governance focused on delivery of high quality public services designed around the needs of the citizen. This involves, amongst other things, strengthening of the district administration and local self government institutions and enabling people and civil society organizations to undertake the delivery of services themselves or assisting them in delivering services, wherever feasible and beneficial.

To achieve these lofty objectives, a comprehensive and continuous assessment of e readiness of state departments and ministries is a critical exercise. The e Readiness Report of the previous two years played a significant role in propelling states to formulate appropriate policies. In the current Report, the comparative analysis of state wise ranking demonstrates the outcome of such policy interventions.

The decision makers may find this year's report even more helpful as it provides the output and employment multipliers for each state. This may help states determine key interventions depending upon the e readiness of the states. We hope that the various stakeholders will continue to participate in the endeavour and provide feedback to enable more detailed exploration of areas of emerging interest in e Readiness and e Governance.

R.Chandrashekar  
Additional Secretary, (e-Governance)  
Department of Information Technology  
Ministry of Communications and Information Technology  
Government of India





# Message

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The e-Readiness Index of an Indian State reflects its capacity to participate in the global networked economy. Information and Communication Technologies hold the promise of sharpening India's competitive edge by increasing productivity across various sectors of the national economy. It also holds out the promise of bridging the gap between the providers of Government services and their consumers and improves the certainty and quality of service delivery. ICT is also a major driver of economic development by expanding the opportunities for trade.

NCAER's first e-Readiness report, (entitled "India: e-Readiness Assessment 2003") represented an initial attempt at ranking the e-preparedness of India's States, Union Territories and Central Ministries. In the subsequent year, the annual e-Readiness Report 2004 aimed additional recognition as a provider of independent insights into the national effort to bridge the digital divide and on success stories in leveraging ICT for economic development. In 2005, the report incorporates output and employment multipliers of the IT sector at the State level. With three years indices available, the 2005 report also does an inter-temporal analysis of the State rankings.

Top decision makers in the Government rely on the report, which has become an annual feature, in matters of policy formulation. It also encourages various nodal ministries and departments to borrow or share best practices, put in place effective implementation mechanisms and move up in the realisation of value from technology in tune with the opportunities provided. For the investor community, the reports act as pointers to where gap areas and opportunities lie.

New Delhi  
January 2007

Suman Bery  
Director-General  
NCAER





# From the Editorial Desk

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Independent India's most splendid economic story has been the Information Technology revolution. This industry has charted double-digit growth and continues to grow five times as fast as the global IT services industry. DIT-NCAER's e-Readiness reports, since 2003, have been a significant application of factor analytic modelling in evolving the Networked Readiness Index of Indian States. The index is supposed to reflect the State's capacity to participate in the global and Indian networked economy.

Over the last three years, the index and report have evolved considerably.

The first report dealt with conceptual issues involved in developing the e-Readiness Index of Indian States. The report also, through case studies on e-Governance applications at the State level, looked at the role of technology in bridging the gap between providers of government services and their consumers, in terms of removal of uncertainty and improvement of quality of service delivery in a transparent manner.

The second report expanded the framework of case study analysis. Using "Sen's empowerment of vulnerable groups of the society" framework, the report analysed whether the State specific e-Governance applications reached the un-served and/or under-served citizen. However, an e-Governance application that serves the target audience but does not utilise the maximum potential of technology or value of information, is again a sub-optimal one. Thus, Brown's Framework was used to analyse the same. In addition, analyses of financial IRR and economic IRR of e Government applications also formed an integral part of the report and thus, the profitability component was added to the conceptual analysis of case studies. The parameters were also revised in the light of suggestions received from various State governments without altering the basic model - Principal Component Analysis - to include Ground level realities into the Index.

The current report has several interesting and useful analyses. First, as an inter-temporal analysis of issues related to IT is an interesting facet, a trend analysis of the Composite Index and sub-indices of e-Readiness of Indian States has been attempted. Second, an analysis of the output and employment multiplier effects of the IT sector not only at the national level (which was our staple analysis in the previous two reports) but also at the State level is presented. For this we consulted the Input-Output specialist, Prof. M.R. Saluja, in order to understand the impact of IT sector in both the "developing" and "developed" States of India. The IT sector's significantly higher Employment Multiplier effects in "developing States" and Output Multiplier effects in technologically advanced states reinforces the different role IT plays in developed and developing regions in bridging the digital divide. This year's case studies look at how Public Private Partnership models emerge as the common factor of successfully launched, scaled up, e-Governance applications without any appreciable gestation period. The report also delineates factors that distinguish successful initiatives from the not so successful ones such as the ability of the State to learn from other States' success stories; keenness to leverage the existing e-Governance applications; realisation of the breadth and depth of e-Governance applications from maintaining the data base of land records to delivery of public services in remote areas, to governance of municipalities to having applications that have the reach in the entire State to those restricted with reaches at the district and block levels.

To sum up the sojourn till date has been interesting and exciting, revealing various insights on possible solutions to various issues confronting the use and potential of IT in governance in India.

New Delhi  
January 2007

R.Venkatesan





# Acknowledgements

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The comprehensive study of e-Readiness within the specified time frame would not have been possible but for the cooperation of a number of people and organisations.

The Department of Information Technology team guided by Secretary, Shri. Jaiinder Singh and consisting of Shri. R. Chandrashekhhar, Additional Secretary, Shri. S.P. Singh, Senior Director DIT, and Ms. Vineeta Dixit, Consultant, NEGP, have put in a great deal of effort to give this study a final shape.

The Department of Information Technology appreciates the valuable inputs and suggestions received from the IT Secretaries of various states and Union Territories.

We thank the NCAER team led by Mr. R.Venkatesan - Project Leader and Dr. Wilima Wadhwa - Joint Project Leader; Prof. M.R. Saluja - Input – Output Analysis Specialist, Dr. Bibek Ray Chaudhari, Ms. Rupa Malik - Project Co-ordinator, Mr. Sujit Basu and Ms. Kanika Kalra for their efforts in bringing out the state-level ranking and case studies of e-governance initiatives. We also thank to Mr. Udayan Namboodiri for his editorial comments and suggestions.

We thank the IT Secretaries of all State Governments and Union Territories for their timely responses which made the completion of this mammoth exercise possible within the allotted time.

Last of all, we express our indebtedness to all those who have not been explicitly mentioned above but have been working ceaselessly behind the scene and have made a substantial contribution to this exercise.





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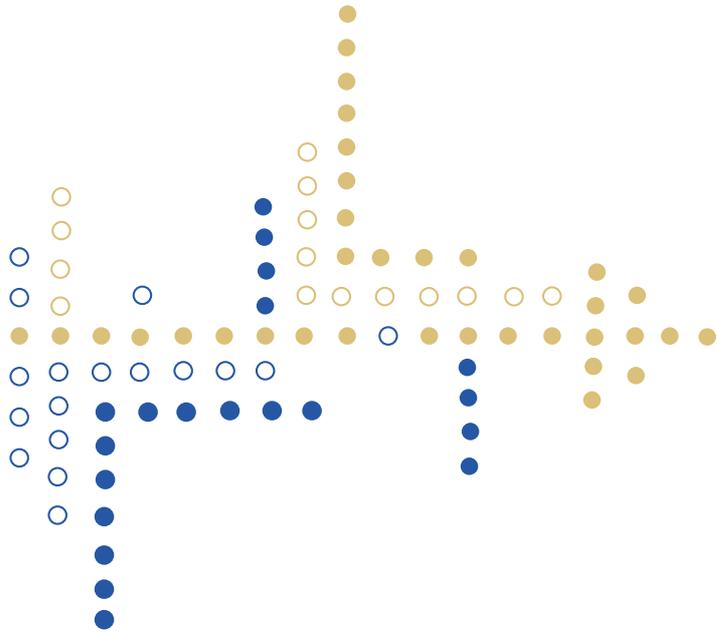
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# Executive Summary

