



FUTURE OF RURAL INDIA IS A DIGITAL INDIA

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KEYWORDS :

Introduction:

The Digital India agenda has created opportunities for many ministries and departments of the government to come together and develop integrated solutions. But many technology providers, and indeed even some policy planners, have begun to consider Digital India opportunity as synonymous to the development of smart cities and the "Internet of Everything". In reality, the benefits of a truly Digital India for rural areas are even more significant than the more trendy applications that urban planners can envisage. This point was brought home to some of us at NASSCOM Foundation in a conversation with secretary (panchayat) and her team in Delhi a few weeks ago. During a discussion on the **National Digital Literacy Mission (NDLM)** and the excitement at making over two hundred million citizens and families access and disseminate information for building better livelihoods, it emerged that the vehicles that could drive the digital literacy agenda could be used to provide various other services to the rural population. A village of just over a thousand people in the India served as an eye-opener to our team. The story of this village, which has moved from a drought prone state of penury twenty years ago to a stage where hardly three of its inhabitants qualify for below poverty line (BPL) status, is a story of leadership and commitment helped to some extent by technology. A flourishing cricket career to take on the reins of the village and invested in education and regular gram sabhas to rid the village of the twin scourges of alcoholism and illiteracy is fond of talking about the people movement inspired by him that led to this transformation. The e-Panchayat software installed in the village that helps keep track of all critical parameters of village health may not be core to the success of this remarkable village, but certainly is a catalyst for its ongoing progress

NINE PILLARS OF DIGITAL INDIA:**Key Projects of Digital India programme:**

- 1. Digital Locker System-** aims to minimize the usage of physical documents and enable sharing of e-documents across agencies. The sharing of the e-documents will be done through registered repositories thereby ensuring the authenticity of the documents online.
- 2. My Gov.in-** has been implemented as a platform for citizen engagement in governance, through a "Discuss", "Do" and "Disseminate" approach. The mobile App for My Gov would bring these features to users on a mobile phone.
- 3. Swachh Bharat Mission (SBM) Mobile app-** would be used by people and Government organizations for achieving the goals of Swachh Bharat Mission.
- 4. E-Sign framework-**would allow citizens to digitally sign a document online using Aadhaar authentication.
- 5. The Online Registration System (ORS)-** under the e-Hospital application has been introduced. This application provides important services such as online registration, payment of fees and appointment, online diagnostic reports, enquiring availability of blood online etc.
- 6. National Scholarships Portal** is a one stop solution for end to end scholarship process right from submission of student application, verification, sanction and disbursement to end beneficiary for all the scholarships provided by the Government of India.
- 7. Deity-** has undertaken an initiative namely **Digitize India Platform**

(DIP) for large scale digitization of records in the country that would facilitate efficient delivery of services to the citizens.

8. The Government of India has undertaken an initiative namely **Bharat Net**, a high speed digital highway to connect all 2.5 lakh Gram Panchayats of country. This would be the world's largest rural broadband connectivity project using optical fiber.

9. BSNL has introduced **Next Generation Network (NGN)**, to replace 30 year old exchanges, which is an IP based technology to manage all types of services like voice, data, multimedia/ video and other types of packet switched communication services.

10. BSNL has undertaken large scale deployment of Wi-Fi hotspots throughout the country. The user can latch on the BSNL Wi-Fi network through their mobile devices.

11. To deliver citizen services electronically and improve the way citizens and authorities transact with each other, it is imperative to have ubiquitous connectivity. The government also realizes this need as reflected by including **'Broadband Highways'** as one of the pillars of Digital India. While connectivity is one criterion, enabling and providing technologies to facilitate delivery of services to citizens forms the other.

Highlights of the progress in Digital India:

More than 12,000 rural post office branches have been linked digitally and soon payment banking would also become a reality for them.

The government also plans to make 'digital village' across the country, by linking all schemes with technology. The 'digital village' would be powered by LED lighting, solar energy, skill development centers and e-services like e-education and e-health.

Electronic transactions related to e-governance projects in the country have almost doubled in 2015, owing to the Digital India Programme. According to government website electronic transaction aggregation and analysis layer (eTaal), 3.53 billion transactions took place in 2014, which almost doubled in 2015 to 6.95 billion.

The progressive policies and aggressive focus on 'Make in India' have played a significant role in the resurgence of the electronics manufacturing sector.

PROPOSED IMPACT OF DIGITAL INDIA:**A. Economic Impact:**

According to analysts, the Digital India plan could boost GDP up to \$1 trillion by 2025. It can play a key role in macro-economic factors such as GDP growth, employment generation, labor productivity, growth in number of businesses and revenue leakages for the Government. As per the World Bank report, a 10% increase in mobile and broadband penetration increases the per capita GDP by 0.81% and 1.38% respectively in the developing countries. India is the 2nd largest telecom market in the world with 915 million wireless subscribers and world's 3rd largest Internet market with almost 259 million broadband users. There is still a huge economic opportunity in India as the tele-density in rural India is only 45% where more than 65% of the population lives. Future growth of telecommunication industry in terms of number of subscribers is expected to come from rural areas as urban areas are saturated with a tele-density of more than 160%.

B. Social Impact:

Social sectors such as education, healthcare, and banking are unable to reach out to the citizens due to obstructions and limitations such as middleman, illiteracy, ignorance, poverty, lack of funds, information and investments. These challenges have led to an imbalanced growth in the rural and urban areas with marked differences in the economic and social status of the people in these areas.

Modern ICT makes it easier for people to obtain access to services and resources. The penetration of mobile devices may be highly useful as a complementary channel to public service delivery apart from creation of entirely new services which may have an enormous impact on the quality of life of the users and lead to social modernization. The poor literacy rate in India is due to unavailability of physical infrastructure in rural and remote areas. This is where m-Education services can play an important role by reaching remote masses. According to estimates, the digital literacy in India is just 6.5% and the internet penetration is 20.83 out of 100 population. The digital India project will be helpful in providing real-time education and partly address the challenge of lack of teachers in education system through smart and virtual classrooms. Education to farmers, fisher men can be provided through mobile devices. The high speed network can provide the adequate infrastructure for online education platforms like massive open online courses (MOOCs). Mobile and internet banking can improve the financial inclusion in the country and can create win-win situation for all parties in the value-chain by creating an interoperable ecosystem and revenue sharing business models. Telecom operators get additional revenue streams while the banks can reach new customer groups incurring lowest possible costs. Factors such as a burgeoning population, poor doctor patient ratio (1:870), high infant mortality rate, increasing life expectancy, fewer quality physicians and a majority of the population living in remote villages, support and justify the need for tele medicine in the country. M-health can promote innovation and enhance the reach of healthcare services. Digital platforms can help farmers in know-how (crop choice, seed variety), context (weather, plant protection, cultivation best practices) and market information (market prices, market demand, logistics).

C. Environmental Impact:

The major changes in the technology space will not only brought changes to the economic system but will also contribute to the environmental changes. The next generation technologies will help in lowering the carbon footprint by reducing fuel consumption, waste management, greener workplaces and thus leading to a greener ecosystem. The ICT sector helps in efficient management and usage of scarce and non-renewable resources. Cloud computing technology minimizes carbon emissions by improving mobility and flexibility. The energy consumption can be decreased from 201.8 terawatt hour in 2010 to 139.8 in 2020 by higher adoption of cloud data centers causing a 28% reduction in carbon footprint from 2010 levels.

DIGITAL FUTURE Report of Serving India's Digital Consumer (2013) CII - AT Kearney White Paper on Serving India's Digital Consumer states some happenings in a digital India estimated by 2020-

- 600 Million Mobile Internet Users
- 200 Million Broadband Connected Devices
- 300 Million of users of instant messaging Services
- 900 Million Monthly app downloads
- 80 Million Annual m-commerce purchases
- 40%-50% Smartphone Penetration

INTERNET PENETRATION IN RURAL INDIA ABYSMAL: REPORT

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While the overall penetration in India is 33 per cent, it is only 16 per cent in the rural areas, a report released at the 'India Mobile Congress 2017'. According to the Cellular Operators' Association of India (COAI) IMC-Deloitte report, India currently ranks 36th, globally, in Internet inclusion based on availability, affordability, relevance and readiness. India lags behind many countries in broadband penetration with only 23 per cent, which comes to around 310 million subscribers as of August, 2017.

The rise in broadband penetration, which is considered a key element

in achieving a country's socio-economic objectives, to 60 per cent could translate into a 5-6 per cent increase in the GDP."The telecom industry is contributing significantly to the Indian economy. The industry has ensured that the government's Digital India programme reaches the farthest corners of the country," said, Director General, and COAI."With the lowest call rates in the world and affordable access to data the industry truly is at the cusp of revolution," he added. Some of the key recommendations in the report for building connectivity-infrastructure for billions included 'setting aspirational goals', 'increasing planned budgetary allocation and effective usage of Universal Service Obligation Fund (USOF)', 'implementing policies and guidelines to standardize deployment of infrastructure'. The report also noted Net Neutrality as a continuous area of debate. It also underlined the need to define the regulatory guidelines towards new emerging technologies which are giving rise to new use cases."Telecom is redefining mobility, work, governance, etc. and will promote geographical, financial and social inclusion and enable the interplay of technologies and industries for exponential growth propelling India towards a \$5 trillion economy," added, Partner, Deloitte Touche Tohmatsu India LLP. The report also addressed the need and implementation status of smart cities, smart healthcare, smart money, smart energy and smart agriculture.

Conclusion:

A digitally connected India can help in improving social and economic condition of people through development of non-agricultural economic activities apart from providing access to education, health and financial services. However, it is important to note that ICT alone cannot directly lead to overall development of the nation. The overall growth and development can be realized through supporting and enhancing elements such as literacy, basic infrastructure, overall business environment, regulatory environment, etc. The journey to a fully Digital India requires massive investments in urban and rural telecom/IT infrastructure. Globally such ambitious projects only work if there is close cooperation between the federal, state and private sectors in deploying Telecom/Broadband infrastructure in a phased manner and coordinated manner. The unprecedented growth of data demand has created significant challenges for the Telecom sector. Today networks are choked and it is increasingly clear that network capacities need to be considerably enhanced for users to derive optimal benefits from Digital India. The Indian telecom tower industry has been a key partner in the growth of the Telecom Sector but faces challenges in making the investments needed to support the infrastructure needed by Digital India. The Industry has been accorded 'Infrastructure' status, given its critical role in the development of the telecom sector and the growth of the overall economy of the country, but the benefits provided to other infrastructure grantees are yet to be extended to this sector. Telecom infrastructure providers find rural towers quite uneconomic. In most countries, towers are built in rural areas with government subsidy and support

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