

## **An Analytical Study of Effect of Telecommunication Industry on Environmental Degradation in India**

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### **ABSTRACT**

Nirmala Sitharaman the Finance Minister of India was declared that the Indian government will carry out the strategy for data centre parks in Union Budget- 2020. It was also stated that Rupees 6000 crore will be set by the government to Bharat net in the year 2021. Gram Panchayats, Police Stations and Post offices would be get connected digitally and an amount of rupees 8000 crore will be given for National Mission on Quantum Technology application in the coming 5 years. These information and plans presents that the telecommunication industry in India is on growing platform and path ways. The telecom sector also plays an important role in service sector of India Economy. The problem of the environment is as old as mankind itself, actual awareness of the problem has developed gradually, as the damage inflicted on nature has become more and more serious. It is interesting to observe that as early as the end of the 19th century, many people living in highly industrial areas were complaining to the courts of noise, smoke, bad smells and other effects of industrial pollution. There are a fairly large number of judicial decisions on record: in the vast majority of cases, the claims were dismissed on the grounds that the industries were vital for the economic growth of the countries in question and for the satisfaction of individual needs, and that it was perfectly natural that some people should suffer a certain degree of inconvenience. The purpose of current paper is to know the significant impact of telecommunication services on the environment.

Keywords: Telecommunication, Environment, Environmental Issues, Service Sector, Environmental Protection.

### **INTRODUCTION**

The industry of information & Communication Technologies are mounting rapidly in our country. The escalation of the industry has led to healthy competition at all the levels of the economy that is at the local domestic and global level. (WIONEWS, 2020)

Nirmala Sitharaman the Finance Minister of India was declared that the Indian government will carry out the strategy for data centre parks in Union Budget- 2020. It was also stated that Rupees 6000 crore will be set by the government to Bharat net in the year 2021. Gram Panchayats, Police Stations and Post offices would be get connected digitally and an amount of rupees 8000 crore will be given for National Mission on Quantum Technology application in the coming 5 years. ICT Technology market in Indian economy is growing rapidly and it has brought Indian ICT Market on the 3rd place on global front, which is the testimony of increased leverage of the industry in the Indian economy (Gartner, 2006). It can't be denied that ICT industry is very significant as it offers a lot of potentials and prospects of development. It is one among the most promising and prominent sectors of the economy. The service sector has contributed highly in income, trade and employment of India. Therefore, it won't be wrong to say that the service sector of the country has a major role in raising the growth level in the country. Thus, service sector is significant for the growth of the whole Indian economy by rendering stability to the economy.

In 2008, our country was the second leading wireless market all over the globe which indicates the impact of Indian Telecommunication in the entire world. To add on, seven Indian telecom leaders have made it to the list of world's 100 most important dominant Telecom Leaders of the magazine - Global Telecom business industry.

As per IBEF, India is the world's second largest telecommunication market with 1,191.81 million subscribers as on August, 2019. Telecommunication market comprise three major fields like wireless, wireline and internet services. In August, 2019 Wireless market includes 98.25% of the total subscriber and user base as compared to 95.90% in 2011. The segment of Rural Subscribers as on August 2019 was 42.8% of total telephone subscribers as compared to 33.35 % in 2011. Our country is the second highest with respect to internet users and subscribers. India is at the highest position in the world when it comes to data uses of Smart gadgets & phone. A rise in number of users & subscribers of Internet was also seen in at a CAGR of 41.5 8% from 2006 to 2018 which is expected to be 665.31 million in 2020. India is also the world's fastest growing market in mobile applications and second largest market for Google Play download. The internet user base in the country is above 500 million which can increase to 627 million in 2019. The contribution of 4G data has led to increase in the total volume of wireless data uses 92.5 6% in 2020. Telecom provides total revenues of 61,535 crore in the year 2019. Strong policies of the government can help in the growth and development of ICT industry in India. Direct investment from foreign agency from telecom sector has reached to 100% from 74%. The government's expenses on telecommunication infrastructure and services have increased six fold times in the last 4 to 5 years.

Environment includes the surroundings or the circumstances in which living thing survives or operates. The problem of the environment is as old as mankind itself, actual awareness of the problem has developed gradually, as the damage inflicted on nature has become more and more serious. It is interesting to observe that as early as the end of the 19th century, many people living in highly industrial areas were complaining to the courts of noise, smoke, bad smells and other effects of industrial pollution. There are a fairly large number of judicial decisions on record: in the vast majority of cases, the claims were dismissed on the grounds that the industries were vital for the economic growth of the countries in question and for the satisfaction of individual needs, and that it was perfectly natural that some people should suffer a certain degree of inconvenience. Environmental protection is considered as the practice of protecting the natural surroundings by persons, organizations and governments. It means conserving natural resources the existing ones and repairing the damages that has been happened to the ecosystem. Telecom Sector has been playing recognized as a foundation and base for innovation in other sectors and industries that uses the technology of telecommunications. And also in the future telecom sector will continue to be a major technology foundation for new ventures. The provision of good telecom sector in the country is a key to fast and quick social development of a country. Telecommunications in India is the fastest growing industry in the country. Also, it contributes a lot in environmental protection of the country. The association between telecom sector and environment has been considered as very multifarious and many-sided. Telecommunication has a lot of impact on the environment. Effects of Telecommunication on environment can be direct and also indirect.

## **REVIEW OF LITERATURE**

- Jan C. T. Bieser and Lorenz M. Hilty (2018) in their study affirmed that diverse e-commerce schemes by telecom sector has concentrated fuel consumption and resulted in less carbon emission. This proves that telecom sector impacts the environment favorably
- John Houghton. Rev6 (2009) in his article without a doubt reveal that telecommunication offers a potential for convey and travel replacement. It saves transport fuel, energy and time which are beneficial for individual, employees and the community as a whole. Reduction of long distance travelling, use of webcast teleconferencing and videoconferencing is very significant and has direct positive impact on environment. Telecommunications also bequeaths to the resource & energy competence of many material products either by the products itself or the process of production.
- Maritz et al (2004), acknowledged that Telecom influences the choices of suburban and employment site, which in twirl affect demand of travel. Telecom implies a fall in commuting voyage at no cost in terms of road and rail network and other transportation services. Thus, telecom gives solution to the overcrowding problem.

## **RESEARCH GAP:**

The previous studies on the topic and the subject reveals that economic contributions of telecom sector have been studied in the past and had gain attention also but still a lot much needs to be revealed and studied about the impact of telecommunication industry on environmental issues in India. This study is an effort to eliminate this break by highlighting the contributions of telecom sector in environmental protection in Rajasthan state.

Purpose of the Paper:

- To study about the situation of telecommunication sector in environmental problems and issues in Rajasthan state.

Hypothesis:

Ho: There is no significant impact of telecommunication industries on environmental degradation in Rajasthan state.

Ha: There is a significant impact of telecommunication industries on environmental degradation in Rajasthan state.

Data Analysis and Interpretation:

To study the current problem of research concerning the impact of telecommunication facilities on environmental conditions of Rajasthan state especially the increasing numbers of mobile networks for providing high speed data and high frequency connectivity on the environment and society researcher has used primary data. A sample of 200 users of mobile phones and other was taken and an open ended questionnaire was used to know the attitude of people regarding research problem. The data presents that most of the male under age bracket of 18 to 35 years with various occupation and working profiles, data also reveals that respondents were educated with at least secondary as education level.

For testing the hypothesis researcher has used correlation analysis between the variables of telecommunication services and environmental conditions. Following tables are showing the outcomes of hypothesis examination:

<b>Descriptive Statistics</b>			
	Mean	Std. Deviation	N
Telecommunication Facilities	2.095	.654	200
Environmental Conditions	2.980	.845	200

<b>Correlations</b>			
		Telecommunication Facilities	Environmental Conditions
Telecommunication Facilities	Karl Pearson's Correlation	1	.067
	Sig. (2-tailed)		.000
	N	200	200
Environmental Conditions	Karl Pearson's Correlation	.067	1
	Sig. (2-tailed)	.000	
	N	200	200

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The above given schedules presents that telecommunication facilities have noteworthy impact on environmental conditions. So the researcher has accepted the alternative hypothesis that is there is a significant impact of telecommunication industries on environmental degradation in Rajasthan state. It is important note that all the factors of environmental conditions like health, pollution, ecological system, etc. were getting affected negatively.

**Conclusion**

The correlation ensuing important collision was relating to the negative aspect of increasing telecommunication facilities especially increasing numbers of mobile towers for proving better network facility and connectivity to the subscribers on environment degradation of Rajasthan state. Big brands of telecommunication industry like Bharti Airtel, BSNL, VODAPHONE, etc are working for environmental imbalance and they are contributing in the environmental protection through various ways and protective steps like telecom sector has increased awareness of legal rights, e.g. regarding water and land, Smart electronic systems like mobiles are making big steps in increasing efficiency of energy consumption, increased broadband connectivity allows more people to work. But the negative

impact of all such improvements and updates in Indian communication sector are comparatively high which needs more significant and effective steps by the government and society.

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