

Government Initiatives Towards Infrastructure For The Development Of Rural Punjab

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ABSTRACT:

Infrastructure can be defined as the basic facilities and services which directly or indirectly supports the economic growth and beneficial for the wellbeing of human development. Providing various infrastructural facilities like roads, railways, transportation, communications, housing, sewerage, sanitation and health etc all comes under the infrastructure. Infrastructure is considered as a foundation for accelerating the economic growth in terms of increasing GDP (GROSS DOMESTIC PRODUCT). All the sectors whether it is business sector and commerce all depend on the availability of infrastructure to transport goods, provide services, provide accessibility, and communicate and efficient functioning of the economy. It is well known fact that there is an urgent need to boost rural development. Infrastructural development is considered as an essential key to reduce poverty level in rural areas of Punjab. Various states like Orissa, Gujarat, Jharkhand, and Himachal Pradesh have recorded the high GDP only due to the availability of infrastructure which further improves the productivity of agricultural output per hectare. Punjab, a small state occupied 1.54 percent of the geographical area of country and 20TH largest Indian state by area comprising 22 districts. For the proper development of rural areas it is very much necessary to improve infrastructure that will enhance quality of human life and also accelerates the process of agriculture development. Improved infrastructure enhances the size of market, economies of scale and standard of living. Poor rural infrastructure always creates hurdles in the development and proper growth of that area. The Punjab government has been well versed with the fact that availability of socio economic infrastructure is important for accelerating the economic development of backward areas. Some studies revealed that southern districts and some of the western districts of Punjab are the most deprived districts in all the availability of infrastructure. With an

objective to improve and remove all the obstacles that arise due to inadequate infrastructural facilities various steps or schemes has been initiated for the development and to increase the quality of life even in backward areas of Punjab. It is the government duty to ensure that each and every step that is taken by them should be implemented properly and in a adequate manner because majority of population belongs to rural areas. The study suggested that there is need for improving the rural infrastructure for the development and growth from the point of view and institutional & structural reforms are needed for promoting the efficiency of infrastructure.

Keywords: Economic Growth, Institutional & Structural reforms, productivity, efficiency, rural infrastructure index, programmes

INTRODUCTION:

Infrastructural facilities are considered to be the one of the major sources for the economic development of the any country. Proper and adequate infrastructure facilities ensure high standard of living as well as higher productivity growth with proper efficiency level. If adequate infrastructure facilities are not available in any country then it brings poor standard of living and economic deficit as physical infrastructure has direct impact on the overall economic development of an economy. Infrastructure refers to the basic facilities and services that are provided by both public sector as well as private sector that enhance economic activities and help in the overall development of economy. Infrastructural facilities include transportation, communication, power, energy, health facilities, education facilities, sewerage etc. All sectors such as agriculture sector, secondary sector, and tertiary sector depend on infrastructure such as roads, railways, electricity lines and broadband connections to transport goods from one sector to another sector for the smooth functioning of the economy. All the sectors depend on the availability of infrastructure for the existence of the human and proper wellbeing. Like irrigation facilities is very much necessary for the agriculture development of the country. Roads, railways, bridges, shipping and airways are also important for transporting goods from one side to the other side and are one of the major constituents of the economic infrastructure. They are the basic essential services that should be in consideration to enable development to occur. Socio economic development can only by facilitated by the presence of social and economic infrastructure. If these facilities and services are not in proper place, development will be very difficult.

Developed countries have made a lot of progress and achieve great prosperity only due to tremendous growth of social and economic infrastructure.

Generally, Infrastructure can be classified as Economic Infrastructure and Social Infrastructure. Economic infrastructure refers to the facilities which directly support the economic system and fulfill the requirements of all production sectors. Economic infrastructure includes roads, railways, bridges, energy, communication etc without which human existence will not be possible. On the other hand Social infrastructure refers to those facilities which indirectly supports the economic system and related with the quality or well being of human in terms of improving standard of living. Social infrastructure includes health facilities, education facilities, sanitation, housing etc. Proper and adequate infrastructural facilities is essential to enhance the efficiency of the production process and also helpful in raising the productivity in terms of GDP which will further accelerate the development because for the proper development of economy growth in terms of GDP will be there. Economic Infrastructure is the nerve centre of the economic system. It plays an important role in the development of not only the economy but of the civilization as well and results in the overall growth of the towns and cities.

The World Development Report 1994 defines infrastructure for development as below:

- Public utilities- power, water supply, sanitation, telecommunication, sewerage system, solid waste collection and disposal.
- Public works- roads, railways, bridges, shipping, canal system for irrigation and drainage, dams.
- Other services- housing, health, education, security.

Punjab, the 20th largest state and largest province in terms of population hold 30.4 million, contributes a great share in national GDP. The growing economy of Punjab needs to improve the capacity and efficiency of all the sectors for the present and future generation. The expansion of province requires proper facilities of infrastructure along with the equitable provision of public utilities in all districts of Punjab for the overall development of the Punjab. There are 22 districts and 13,276 villages in Punjab and Agriculture is the backbone of the Punjab's economy. Existing infrastructure of Punjab is amongst the best in India. Due to the abundant availability of natural resources, Punjab infrastructure is impressive and

healthy with an average growth rate of 10%. In order to enhance connectivity, communication networks and develops urban and rural infrastructure as well continuous investments have been made by public and private participants. Development of new power plants are also included which have ensured that Punjab has enough power and planning to develop all its 22 cities by providing 24*7 availability of affordable power, complete sewerage system and improving roads in all the cities for the smooth functioning of the state. But due to the unrestricted growth in urban cities there is a great pressure on infrastructure facilitates for the further growth of major cities and urban centers. On the other side, Regional disparities are also there in many districts of Punjab due to inequalities exists in the development budget allocation. Due to the growing population of Punjab and migration of people towards urban areas are also creating the problem of shortage of infrastructure availability and accessibility to the citizens. As a result many areas or districts of Punjab are being deprived even of the basic infrastructural necessities

Infrastructure is crucial for the development of urban areas as well as for rural areas. If one side of country is developed due to the availability of infrastructure and other side is underdeveloped due to lack of infrastructure facilities then it does not lead to the overall development of economy rather it is only one sided development. Rural development is also very much important for the Punjab as majority of population lives in rural areas of Punjab. About 62.56% of total population belongs to rural areas so it is great responsibility of the state government to improve the infrastructural facilities over there for the betterment of rural people as well for state growth. Rural development refers to the improvement in quality of people and further steps that are designed to improve the socio-economic status of people. It includes the expansion of benefits of development to the rural people such as small farmers, landless households, tenants etc. Rural development aims at improving the quality of life that is the key factor of effective growth of the agriculture production as agriculture is the main occupation of rural people. To achieve greater level of output with improved efficiency it is necessary to maintain the balance between the social and economic development. The development of rural infrastructure could improve the economic growth, enhance the standard of living of people residing over there and reduce the drastic problem of poverty by generating more and more employment opportunities and providing access to basic goods and services along with the improvements in the health and physical condition of people. Punjab state is an agrarian economy. The development of agriculture sector is dependent on technology as well as agriculture infrastructure facilities. About 40% of primary products loss before it reaches to the market due to lack of storage facilities, lack of irrigation facilities or also due to poor connectivity of rural areas with the urban market. For the development of rural areas, infrastructure must be there in proper and adequate manner for raising productivity along with lower

cost of production activities. Infrastructural facilities whether in physical form such as roads, bridges, railways etc or in social form such as health, education, housing etc plays a key role in determining the agricultural output. If all the facilities such as regulated markets, storage capacity with government agencies are provided to the farmers then it will encourage them to increase their productivity and sale their output in the regulated markets instead of selling it at the farm gate. Basic economic functions of production, marketing and consumption in a variety of ways are greatly affected by the infrastructure facilities. Having geographical area of 1.54 percent Punjab, a small state occupy a major share in food grains production especially wheat and paddy. Rural urban linkages developed through rural development, which also proves to be beneficial for the forward and backward linkages in agricultural output sector.

Infrastructure projects require not only massive investments and their execution but also to maintain them efficiently with proper concern. For maintaining their efficient execution state government plays an important role. Earlier, all the efforts are made by government to provide all the basic facilities and services for the overall development of economy. Government of Punjab has made a lot of efforts for the development of rural Punjab. The state has initiated a lot of steps, policies and programmes in order to improve the infrastructure of rural area. Earlier the situations of Punjab infrastructure in rural areas were not only inadequate, but are very poorly organized and under-dependable. As a result, poor villagers were only confined to poor education, poor health, unemployment and poverty. Of course, government has already intervened by launching various programmes to create and facilitate socio-economic facilities among the needy persons in those backward areas. Punjab government has taken various initiatives in order to boost rural development as well connectivity in state, along with culture, tourism & sports. Serious efforts are made by state in order to create right kind of environment for the growth and development. Punjab has set up Punjab Infrastructure Development Board (PIDB), Punjab State Agriculture Marketing Board (PSAMB) and Punjab Agro-Industry Corporation (PAIC) for the development of infrastructure in the state for the betterment and the construction of roads, bridges and national highways including village and town roads, well organized markets, purchase centers, development of parks, storage facilities creation, transportation hub, food processing centers and other facilities. After the independence of country in 1947, government of country itself has committed to the development of rural area of Punjab. Rural development is a process of transforming the tradition culture towards an acceptance of science and technology or modern culture or as a process of improving the standard of living of the rural people residing in rural areas and making or achieving the process of self sustenance. The objective of rural development is to maintain the balance

between social and economic development, bring an improvement in the ecological environment so that it may be valuable for growth and happiness and to enhance the production and productivity in the rural areas.

Punjab has been ranked 1st in India in terms of infrastructural facilities offered to its citizens. Punjab's road, rail & air transport network, connectivity, construction & infrastructural facilities are among the best. Punjab has the fourth highest tele-density of 103% in India and second highest rural tele-density in India. The state plans to provide all the major and basic services to its citizens through online portals with greater connectivity across all the major cities, towns and villages. For agricultural improvement that is the main backbone of Punjab government has undertaken various initiatives such as integrated pest management, diversification of cropping pattern, bee-keeping and bio-fertilizers. In order to attract tourism, Punjab has a strong infrastructure by having international airports and of the best rail and road connectivity in the country.

The study examines the infrastructural facilities in all villages of Punjab. Government of Punjab allocates huge amount of resources for the infrastructure for the development of rural Punjab every year. Various initiatives have been taken by government towards infrastructure for the rural development. Huge amount of resources have been allocated for both form of infrastructure i.e. for physical infrastructure and for social infrastructure. Maximization of social welfare is the sole aim of government of any country. It works for the betterment of common people without any motive of maximizing the profits. In order to maintain smooth flow of connection between agriculture and industrial sector, a good socio-economic infrastructure is very much necessary. For the development of social overhead capital like energy, communication, transport, education, health, housing etc government invests a huge amount of money. State intervention has been invoked in order to ensure the economic stability and fuller utilization and efficiency of resources. Hence, it becomes the duty of the government to build up necessary infrastructure. Punjab government has initiated various steps towards infrastructure for the overall progress and prosperity of rural economy. Government of Punjab allocated funds in their financial budget for infrastructure programmes and schemes that are undertaken by them in order to boost the rural Punjab.

OBJECTIVE OF THE STUDY:

- ❖ To find out what type of initiatives or efforts have been made by the Punjab government towards infrastructure for the development of rural Punjab.

- ❖ To analyze the various problems that is faced by rural people that are residing in backward areas due to lack of infrastructural facilities such as lack of storage facilities, lack of irrigation facilities or poor connectivity etc.
- ❖ To observe whether the various initiatives that have been taken by government towards infrastructure for the overall development of rural area are enough or not.

REVIEW OF LITERATURE:

Avinash Kaur and Rajinder Kaur (2018) studied the role of economic and social infrastructure development in Punjab. For the economic development of any area, city or country Infrastructural development is regarded as one of the major source. In order to ensure the standard of living as well as improving the productivity and efficiency, proper and adequate infrastructural facilities must be there. His paper examined the growth of health infrastructure index and economic infrastructure index of Punjab. By finding the health infrastructure and health infrastructure index, he observed that Punjab is showing the positive growth in terms of education and economic facilities but showing the negative growth in terms of health facilities. His paper suggested that government should improve the health facilities if that city, area or country wants the overall development of an economy. He is of the view that for the betterment of human existence and wellbeing there is need that all sectors should require proper and adequate infrastructural facilities. His study revealed that after finding out education infrastructure index of Punjab with the help of regression model there is stability in the social infrastructure in terms of education facility. For improving the education index new schools and colleges have been opened with an increase in population growth. After computing health infrastructure index it shows negative growth which means that with an increase in population growth proper health facilities are not there in proper way.

Iqra Paras and Ghulam Mohey-ud-din (2018) observed that the developed countries of the world having best infrastructural facilities show the positive relationship as a correlation between infrastructure and development. He observed that many south and western districts of Punjab are still deprived of the basic infrastructural facilities. On the other hand, western side of Punjab has grown in social infrastructure in terms of housing, education, health facilities development. Districts of North and North-Eastern Punjab are considered as the best districts in terms of availability of infrastructure facilities. His paper also identified

the areas of prioritization and public investment. His paper also analyzed the success of budget expenditure on the infrastructure development in Punjab and identified whether these allocation of resources are helping in reducing these disparities in infrastructure development or not. He also suggested that the southern districts of Punjab need to be given high priority in Annual Development Plan and allocated sufficient funds for infrastructure sector development. Furthermore, his study suggests that with an increase in population, government should take some more efforts for developing the infrastructural facilities in south districts

Madhusudan Ghosh (2017) studied rural infrastructural facilities in major parts of India and also analyzed their impact on rural development. Improving infrastructure plays a significant role in raising the well-being of people. The quantity and quality of infrastructure that are available in rural areas are still slow as compared to urban areas. Government has taken various initiatives in order to improve infrastructural facilities such as Rural Infrastructure Development Fund (RIDF), Accelerated Irrigation Benefits Programme, Pradhan Mantri gram Sadak Yojana etc. His paper review the status of infrastructure in different parts of India by taking various indicators into consideration – roads, telecommunication, power and housing, water and sanitation, education and health. His paper observed that for human development, infrastructure is crucially essential as the development of human depends on education and health. His paper examines infrastructure and rural development relationship by estimating the effects of all infrastructure indicators on the rural development. He found that in spite of various initiatives adopted by government in order to improve infrastructure, still some areas are facing the lack of infrastructural facilities. His study focus on the role of government by investing appropriate funds for improving facilities and should give higher priority for the developing the rural areas. Policies and programmes should be implemented in proper and efficient way. Steps should be taken for improving governance, smooth functioning and institutional efficiency in order to ensure various infrastructure services to the rural people.

Soumya Manjunath and Elumalai Kannan (2015) examined the relationship between infrastructure and agricultural productivity. It is of great importance to utilize the new infrastructure with the existing ones in the rural areas in order to enhance the productivity of agriculture and for the overall development of region. By strengthening human capital and creating awareness helps in utilizing the existing structure in the better way. As infrastructural facilities have greater impacts on productivity gains and reduction in poverty so developing infrastructure in rural areas is essentially crucial. Along with the availability of infrastructure fertilizer input continues to play an important role in development of agriculture also. He also regarded the importance of social infrastructure as a crucial one as it contributes to the

development processes indirectly as it is directly related to the quality of human. He is of the view that investments in infrastructure should be made available in rural areas and all the facilities and the services that are provided to the public must be utilized properly to their fullest capacity in order to get benefits from these investments and reach greater levels of agricultural productivity. His study also put focus on the rural infrastructure index that has been constructed using the availability and the utilization indicators of irrigation, electricity, transport, telecommunication, market, cooperative credit, education and health in rural areas as he considers rural infrastructure index as one of the main determinant of agricultural productivity. Thus his study throws up light in support of making huge investments in infrastructure of rural areas while at the same time also stress for taking up more effects in order to maximize the efficiency of existing resources.

Palwinder Singh & Jasmindeep Kaur (2014) observed the impact of institutional infrastructure on the volume of agriculture produced in Punjab. He analyzed that infrastructure affects the basic economic functions of production, marketing and consumption in a variety of ways. His paper presents the importance of both physical and social infrastructure in determining the agriculture output. Institutional infrastructure also plays an important role in the overall development of rural areas. Providing storage facility, regulated markets, government agencies also play efficient role in increasing the efficiency. His study also suggested the need of further improvement in rural infrastructure as still inequalities exist in some areas of Punjab and also creates problem for farmers to increase their production level. For raising and improving the agricultural production, there is a need to adopt suitable policies for improving the infrastructural facilities. This is considered to be beneficial for increasing or raising the standard of living of people and for the overall development of rural Punjab. For raising the facilities, investment is required and proper funds should be allocated for rural Punjab by government in budget as 66% population live in rural area. In order to improve the farm produce, market infrastructure may be of international standards as this is the era of globalization. Development of rural area is not only dependent on improving technology but it is also dependent on the infrastructural facilities such as roads, railways, communication, storage capacity, irrigation etc. His study also analyzed the importance of financial markets in the development of economy as these institutions provide credit facilities to farmers in order to raise their crop production and also help in raising the volume of agriculture production which lead to the growth of that economy. These institutions provide credit to buy equipments such as tractors, pump sets etc at a cheap rate. His study finds the importance of agri-infrastructural for the development.

A.Narayanamoorthy and Munir A.Hanjra (2006) attempted to identify the linkages between rural infrastructural development and agricultural output by using cross-sectional data covering 13 states of India. Different infrastructure facilities play different role in the economy. Like, irrigation facility helps to reduce moisture stress and increasing the crop productivity. Road infrastructure helps to improve market efficiency by transporting products from their initial place to their destination. His analysis show that the districts having the agriculture production above the average level shows the better availability of infrastructural facilities such as irrigation, road , school facility, fertilizers, communication than the other districts. His study established the strong relationship between rural infrastructure and value of agricultural output. His study also suggests that for increasing the agricultural productivity and for the overall development of rural area it is necessary to improve the infrastructural facilities in all the areas. He gives more importance to irrigation as he considers irrigation as an important key to increase the productivity in all areas. Other infrastructure without irrigation may perform poorly; watershed development and land and water conservation interventions, rainwater harvesting etc can be considered as better alternation to irrigation development for such settings. Linkages between rural –urban are also developed through road development which proves to be beneficial for strengthening the backward and forward linkages in agricultural sector. He also noted that still inequalities exit in some areas of India which affects the overall growth and development of economy. His paper also suggests that infrastructural role changes with the passage of time because of continuous changes takes place in deciding the agricultural output. For increasing the agricultural productivity and rural development, infrastructure plays a significant role in strengthening the overall growth and development of economy.

Bhatia (1999) studied that, Indian states such as Punjab, Haryana, Tamil Nadu with highest rural infrastructure index as Punjab holds 3rd position in index in terms of various facilities such as transportation, communication, electricity, water sewerage, sanitation, health etc acquire highest agricultural productivity per sector as all the facilities are there and these states are utilizing their all resources up to their efficiency level and many states such as Bihar, Rajasthan and Madhya Pradesh with lowest rural infrastructure index. Bihar holds 21st position in rural infrastructure index which results in the lowest agricultural productivity due to lack of facilities which badly affect their development and also hampers the standard of living. Thus his study establishes a strong relationship between infrastructure and agricultural production which lead to the growth of country. If adequate and proper facilities are available then it will be beneficial for the overall development of rural area.

Fan et al (1999) examined the relationship between government expenditures on irrigation, roads, education, power, sanitation, and health, rural development spending on agriculture growth and reduction in poverty by providing opportunities. Improved infrastructure contributes to the economic growth at a large extent. Government is doing expenditure on roads and research & development have a great impact on the poverty removal and productivity as these are considered as successful strategies. Government expenditure on health and education have the third largest impact on the economic growth.

RESEARCH DATA AND METHODOLOGY:

1. DATA SOURCES

Data on rural infrastructure indicators, various programmes and policies and allocation of funds for each initiative were collected and constructed from the secondary sources i.e. from the already available data. Most of the data related to infrastructure indicators were collected from Economic Survey of Punjab, Punjab –the State Profile, Bureau of Statistics (BOS) Punjab and IBEF Punjab Fact File from where various data related to road connectivity, power plants, electricity availability, irrigation facilities, housing and sanitation etc. Data for various initiatives that have been taken by the government for rural Punjab development were collected from the Government of Punjab Department of Planning- Government schemes for rural areas of Punjab and Press Release by Punjab Government. Data related to allocation of resources for various initiatives that have been adopted by government for improving the facilities in terms of physical and social infrastructures were taken from Punjab Budget Analysis 2018-19 Report where proper information about their expenditure are available along with information of their major allocation of funds for each objective that have been taken by them. The data was gathered for the period 2000-2019 for 22 districts comprising of 13,276 villages in Punjab.

2. METHODOLOGY

In order to know about the relationship between infrastructure and economic growth, many studies used the method of PCA i.e. Principal Component Analysis in order to combine the indicators of development with economic growth. It is a method to explain the variation of the observed variables based on a set of dimensions. Many studies adopted PCA method (Soumya Manjunath, 2015; Debashis Chakraborty, 2009 ;). Many studies adopted the method of Analytical Hierarchical Process (AHP) and Weighted Aggregation in order to compute Infrastructure Development Index (Iqra Paras, 2018). Many findings are computed by

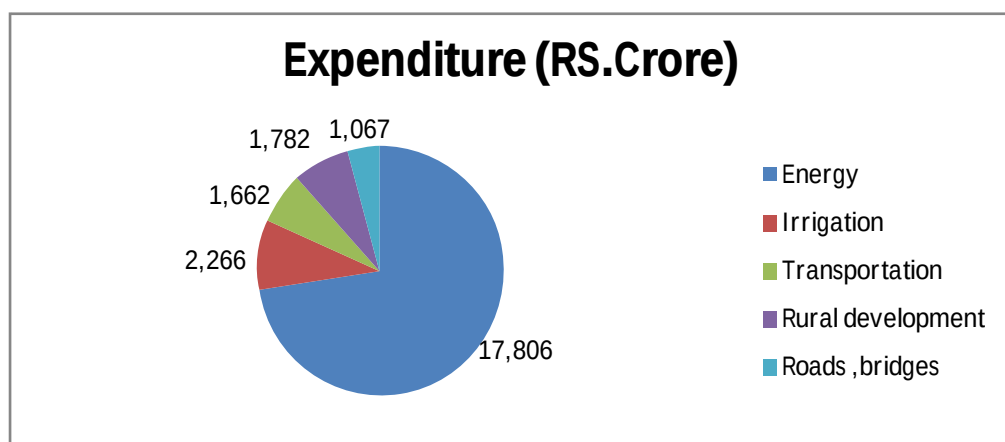
using Multiple Regression model in order to compute index (Avinash, 2018). In order to find out the role of infrastructure in the growth of agriculture in Punjab various statistical tools have been used such as exponential growth rate and inter-correlation matrix for the analysis of data (Palwinder, 2014). This shows that different studies are using different methods in order to analysis the data and arrive at a particular conclusion.

RESULTS AND FINDINGS:

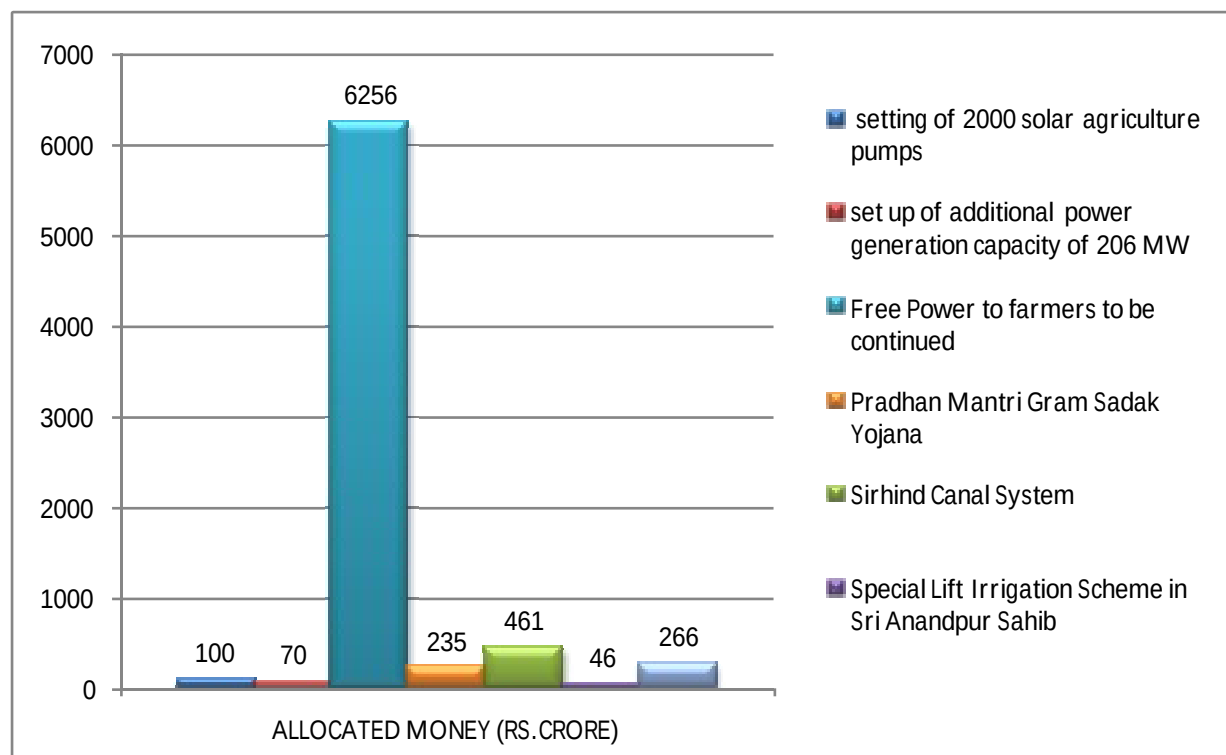
Various initiatives have been taken by the government towards infrastructure for the development of rural Punjab. Infrastructure can be classified into two main parts: Physical Infrastructure and Social infrastructure. Punjab government put a lot of efforts in order to improve infrastructural facilities such as roads, railways, bridges, power plants, electricity, sanitation, health etc for the overall development of rural area of Punjab and for improving the standard or quality of people who are residing over there.

❖ **Physical Infrastructure:** Physical infrastructure refers to those basic facilities and services which directly support the economic system of country and fulfills all the requirement of production sector- agriculture sector, secondary sector & tertiary sector. They also support the production and distribution process in the economy directly. It will help the economy to grow immediately in the short run also. Physical Infrastructure includes: energy, irrigation, transportation, technology, telecommunication, banking etc.

EXPENDITURE ON PHYSICAL INFRASTRUCTURE



SOURCE: PUNJAB BUDGET ANALYSIS 2019-20



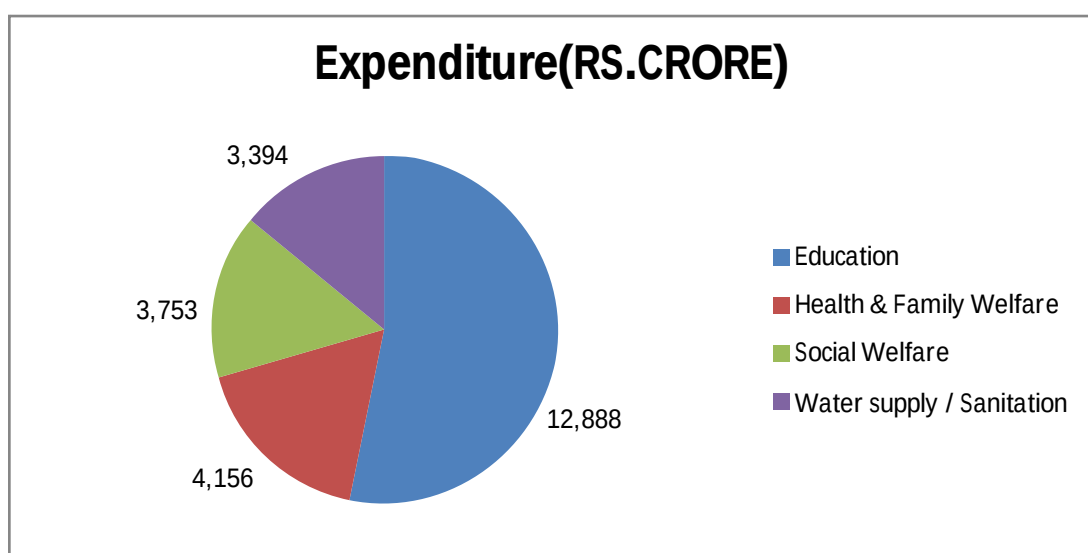
INITIATIVES OR STEPS THAT HAVE BEEN TAKEN BY PUNJAB GOVERNMENT FOR IMPROVING PHYSICAL INFRASTRUCTURE OF RURAL PUNAJB:

- 2000 solar agricultural pumps have been set up with a budgetary provision of Rs. 100 cr. Renewable Energy Projects & systems for meeting the energy needs of farmers will be modernized. Use of solar pumps, Solar street lights will be encouraged by Punjab government for the development of State.
- Public Works Department (PWD) Minister of Punjab decided to upgrade the rural roads and bridges with the assistance of NABARD. The projects include strengthening of 50 kilometer stretch of existing roads in order to improve 71 rural roads and 6 bridges.
- Rs.461 cr. has been allocated to the Sirhind Canal System in order to prevent flooding in Muktsar, Faridkot and Ferozpur in Punjab. This project addresses the problem of water logging in South-West Punjab and enhances the water availability flow in canal.

- The farmers residing in the semi-hilly terrain of Changer area of Punjab that is located on the border with Himachal Pradesh finally are going to get relief as Punjab government decided to install special lift irrigation project at a cost of Rs.46 cr. They are of the view that old problem of drinking and irrigation of the area will be resolved soon.

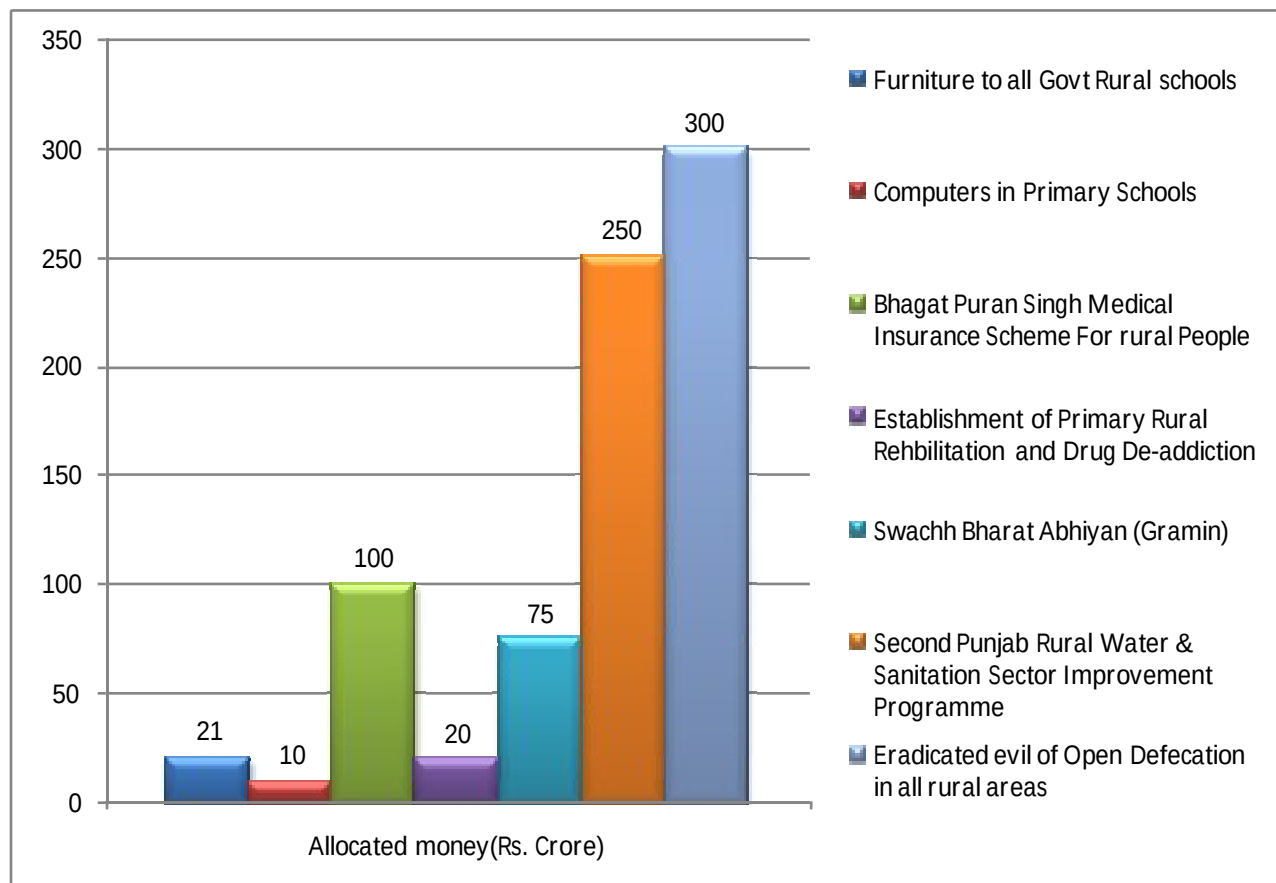
❖ **Social Infrastructure:** Social Infrastructure refers to those basic facilities and services that indirectly support the economic system of country and directly related to the overall development of human and helpful in raising the standard of living. Social infrastructure is also termed as ‘social overheads’. Social infrastructure includes: education, training, health & sanitation, drinking water, housing, sewerage etc which proves to be beneficial for the growth in the long run. They indirectly increase the productivity and the economy sees the impact after some time. These types of facilities will act as an instrument of social changes.

EXPENDITURE ON SOCIAL INFARSTRUCTURE



SOURCE: PUNJAB BUDGET ANALYSIS 2019-20

INITIATIVES OR STEPS THAT HAVE BEEN TAKEN BY PUNJAB GOVERNMENT FOR IMPROVING SOCIAL INFRASTRUCTURE OF RURAL PUNJAB



- In most of government schools of rural Punjab do not have the furniture even after 70 years of independence. For improving facilities of school education, government of Punjab decided to invest Rs.21 cr in all government rural schools by providing furniture facilities.
- Now-a-days computer education is very much necessary for the overall development of student's growth. It was decided by the government to provide computers in all primary schools for the enhancement of their skills. Even the government primary schools are also having this facility that will further improve the enrolment in the government schools.
- Punjab Government has also launched "Bhagat Puran Singh Sehat Bima Yojana" in order to provide relief to the farmers. This scheme was adopted for the welfare of farmers of the state. This scheme was launched at a cost of Rs.100 cr that will provide the cashless health care services to the farmers.

- NABARD launched a project for the construction of 50 bedded primary rural rehabilitation centers for the recovery of drug detoxified persons in various district of Punjab at a cost of Rs.20 cr. This scheme has been launched for improving the quality of life and helping the persons who become habitual for taking drugs and this will help the persons for coming out that situation.
- Punjab government has decided to provide individual households toilets to every household in rural areas under Swatch Bharat Programme (Gramin). Under this programme, 80,000 households got toilets facilities in 2015-16. The cost of toilet under the scheme comes to -15000/- Government of India provides Rs.7200 for per toilet and the remaining amount is born by the state government.
- Second Punjab rural water and sanitation sector improvement programme was also launched by the government in order to improve the rural water supply and sanitation services in Punjab. This programme was launched in Punjab at a cost of Rs.250 cr.
- The financial and physical targets expected under the project is as under:

SN	Project components	Total no of villages to be covered	Estimated cost in crore
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1A: Sewerage Schemes with treatment systems

1.	Sewerage schemes with treatment systems	315	555
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1B: Improved access to water through household connections

2.	Improved access to water through household connections (no of households)	650,000	110
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1C: Household sanitation (toilet)

3.	Household Sanitation (toilet) (nos. of households)	625,000	375
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1D: Water Quality Monitoring

4.	Water Quality Monitoring And Mitigation	In all the villages of the state	43
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NEW SCHEMES

New Initiatives Or Schemes Are Also Going To Be Adopted By The Government Towards Infrastructure For The Development Of Rural Punjab. Government of Punjab is putting all their efforts in order to improve the infrastructure for the overall development of rural areas of Punjab. Various schemes has been launched or adopted by government recently for the further development:

- ❖ In order to improve the infrastructure, government decided to approve **“Smart Village Campaign”** by allocating Rs.384 crore to the project. This campaign adopted by the government for providing essential amenities to all the rural people that are residing in the backward areas. The funds for this scheme would be provided by Punjab Infrastructure Development Board (PIDB) in two equal installments that is 50% each for improving the quality of states 'rural areas. The campaign is based on the premise that each village would move upwards by achieving various goals in different fields like health, education, environment etc.
- ❖ **“Tandrust Punjab Sehat Muhim”** has been kicks off in Patiala with an aim to create health awareness in all villages. Government of Punjab is adopting various schemes related to health that will surely provide some relief to the public. Three publicity vans will spread the awareness related to health among people of kapurthala districts covering all villages. Daily 6-8 villages will be covered and free medical camps will be conducted at villages in order to improve the health life of people. This scheme also ensures the uninterrupted supply of medicines by maintaining efficient stocks in advance in all the villages where the vans will be available in order to boost rural outreach.

❖ **“Padho Punjab Padhao Punjab”** scheme has also adopted by Punjab government with a motive to improve the quality education through the students so that they could easily compete with the students of urban private institutions. Under scheme- a learning enhancement programme, started by the government to know the basic learning levels of students in English, Punjabi, mathematics through the end line testing. Primary schools teachers are being trained through a special training workshop so that they could know how to teach the students in a better and standardized way. Students are being trained with the help of charts, card and learning materials that will enhance the quality of education and for better understanding of the concepts

CHALLENGES THAT ARE FACED DUE TO LACK OF INFRASTRUCTURE

It has been observed that the growth of rural infrastructure does not match with the increase population of rural people in Punjab. In spite of taking various initiatives to overcome the problems that are faced by rural people, these facilities are not adequate enough for the overall development of the state. There are many challenges that are faced by rural population due to lack of infrastructural facilities:

- Present status of irrigation, water supply, and public means of transport, sewage and waste management is much lower than desired. It means that these facilities are less than the planned one which fails to develop the rural area. Still the people residing over there are facing a lot of difficulties due to lack of facilities.
- Government of Punjab decided to provide 24*7 electricity connections in all the districts and villages of Punjab for the betterment of human but still they only decide this and fail to establish or provide any such kind of facility. Still there are many areas of Punjab where there are no electricity connections which badly affects the economy and also become obstacle in the path of development.

- Only 1/4th of area is having sewerage treatment as against desired 100%. The areas which are deprived of sewerage system most probably faced flooding problems. All the area is badly affected by lack of sewerage system which leads to the damage of whole crops and human settlement.
- Rural people still defecates in the open which again lead to problem of various diseases that affects the well-being of human. Various steps have been taken by government of Punjab to eradicate the problem of open defecation but still there efforts do not prove to be beneficial.
- About 40% of primary of primary products loss before it reaches to the market due to lack of storage facilities, irrigation facilities and proper fertilizers spread. Rural farmers get badly affected by the lack of infrastructural facilities. For the overall development of rural area, it is very much necessary to have adequate and proper infrastructural facilities like proper irrigation system, sewerage, housing, education, health, roads, railways etc.

CONCLUSION

The study revealed that there is the existence of infrastructural facilities for the human development and for the well-being of human residing in that area, city or country. This was roads, railways, school, education, health center, sanitation, and sewerage and housing facilities. Infrastructure refers to those basic facilities and services that are essential for the overall development of economy or also for supporting economic growth and raising standard of living. It is widely believed that rural infrastructure remains poor in many areas of India and this become obstacle for increasing agriculture production. There exists link between infrastructure and economic growth in terms of GDP (Gross Domestic Product). For increasing the agriculture productivity, there must be improvement in infrastructure facilities. The role played by each infrastructure type changes with the passage of time. The impact of infrastructure variables on the value of output turns to be stronger if proper facilities are available in an adequate manner.

Punjab's infrastructure is best and impressive with an average growth of 10%. Due to abundant natural resources availability, Punjab infrastructure is one of the best among all the other states. The spread of technology in agricultural productivity mainly depends on both physical and social infrastructure. Most of

time success of productivity is highly dependent on the types of infrastructure facilities that are available. Rural infrastructure plays a key role in approaching large mass of rural people. Poor infrastructure also limits the trader's ability to travel to and communicate with the farmers who reside in remote areas, limiting market access from these areas and eliminating the competition for their production what they produced. Proper road connectivity helps to increase the agricultural production. Investments in rural infrastructure reduce the transportation costs, increased farmer's access to the markets and bring the expansion in agriculture production. The rural infrastructure development helps to enlarge the market and also bring economies of scale with the greater access to factors of production.

The government of Punjab has been well versed with the fact that availability of adequate infrastructure facilities is essential for accelerating the economic development of an economy. Government has accepted the vital role played by infrastructure in development process of any country. Earlier private players were not in favor of doing investments in infrastructure projects because of low profitability. Thus the whole responsibility of doing investments in infrastructure was put on the government or public sector for accelerating the economic growth in terms of GDP. The state government took various initiatives towards infrastructure for the overall development of economy. Government of Punjab realized the need of massive investments in rural infrastructure and ensuring the fruits of economic progress are most equitably distributed in rural areas. Strengthening the infrastructure in order to boost the economic growth is one of the most important objectives for every state and central government. In order to support the agricultural productivity, emphasis was needed to improve rural infrastructure in sectors like roads, railways, communication, bridges etc as an essential requirement for the better productivity on capital and labour. One of the basic limitations to create adequate infrastructure was the inefficiency and shortage of natural resources.

Various initiatives have been adopted by Punjab government like providing furniture in all primary schools of rural Punjab, eradication of open defecation in all rural areas, swatch Bharat Abhiyan (Gramin) etc in order boost the rural development. But in spite of several public initiatives that have been taken by the government for the development of economy, infrastructural facilities are still inadequate and unsatisfactory with the overall performance. Schemes are adopted by the government in order to improve the standard of living and quality of people.

New Schemes are also initiated by the government for further enhancement of rural development as majority of population belongs to rural areas. The economy has undergone several changes which have come about with the collaboration efforts of government and all set to scale new heights to emerge as a economy with sustainable and inclusive growth, going forward. Rural Infrastructure plays a very crucial role in the development of area and it is a high time for rural people to realize the needs of infrastructure. Government must allocate more resources in their annual budgets and implementing agencies including banks must have concern to put in place infrastructure in each village in a time bound progress. Proper information about the each and every scheme should be available to public every month through prints and Medias.

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