



### RESEARCH ARTICLE

## A COMPARATIVE STUDY OF SOCIAL AND ECONOMIC INDICATORS OF GUJARAT AND PUNJAB: ANALYSIS OF GROWTH AND DEVELOPMENT OF THE STATES

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### Manuscript Info

#### Manuscript History

Received: 15 April 2020

Final Accepted: 18 May 2020

Published: June 2020

#### Key words:-

Economic, Development, Gross Domestic Product, Social, Indicators

### Abstract

This paper sheds light on the significant role of the states in the development of the whole country. There has been a considerable physical-infrastructure transformation noticed over last few years. Also economic productivity has contributed value across different sectors. This research paper tries to highlight the contribution of Punjab and Gujarat. The research uses an examination of health, educational, economic, and social indicators to study the growth and development in these states. Lastly the research compares the level of growth and development between both states.

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### Introduction:-

India is a diverse nation which constitutes twenty nine states. States plays an essential role in the development of the nation. Every state contributes towards the complete development of the country. It is acknowledgeable fact that contribution of each state in terms of its economic, social, infrastructural, health, education indicators helps to raise its nation's economy. There are numerous factors which impact the growth of a state. It depends on bases of availability of natural resources, geographical location, labour availability, climatic conditions, state policies etc. This paper intends to study the socio economic indicators of two prosperous states namely Gujarat and Punjab. The study compares social, educational, and health indicators of Punjab and Gujarat states.

Besides, the economic, the physical and infrastructural indicators of Punjab and Gujarat states are also reviewed to study the growth and development in these states.

### Studies Bygone:

High investment environment helps to facilitate higher volume of investment inflows, high productivity manufacturing and services sectors which leads to job creation, income growth and, ultimately, poverty reduction (Dollar, Iarossi and Mengistae, 2002). A good investment climate is a key factor driving agricultural productivity and non-farm growth, especially through small-scale and medium-scale enterprises (Ferro, Rosenblatt and Stern, 2004).

Amareh Dubey in 2009 in his study has explained that intra-state disparities have not elicited similar attention, primarily due to the non-availability of comparable data at the sub-Nss region level. Gujarat was and remains an economically prosperous and dynamic state. It has been steadily on top of the state rankings in terms of both the level of per capita income and its growth rate. Also, rank of Gujarat in terms of per capita income did improve from

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4 to 3 from the 1990s to the 2000s, whereas sharp fall in Punjab's rank from 1 to 5 has been observed (Ghatak and Roy, 2015 ).

Muhammed Salim, 2016 has explained Gujarat Model in economic sectors which are shown by high per capita income, better constant share of agriculture, industry, giant and diversified energy sector. Also he explained that Kerala's peerless and enviable outcomes in health and education have made Kerala Model distinguished all over the world. The study concluded that even though Kerala Model and Gujarat Model are contradictory to each other, but are inevitable models of the country. Sazzad Parwez (2016) investigated experiences of economic growth and social development with reference to comparative analysis of Gujarat and Kerala. Results of study indicate a positive relationship between economic growth and social development. Although economic development has not been adequately accompanied by social development, especially in case of Gujarat, but Kerala has performed positively in terms of social indicators but economy has been in disarray, as it is ranked among bottom half of the country.

### Data Collection and Research Methods:-

This is a descriptive study in which secondary data has been used to analyse the growth and development of the states and make the comparison between various indicators of the two states. This study is based on secondary data gathered from state government and national organizations. The data sources are the online data, data from various published reports such as Economic & Statistical Organisation of Punjab, Census 2011, Statistical Abstract reports of the states, Department for Promotion of Industry and Internal Trade, Economic survey, and Indian brand equity foundation (IBEF- March 2020) etc.

### Results and Discussion:-

This section contains the brief relevance of the states i.e. Punjab and Gujarat. The discussion around the states geographical area, literacy rate, administrative units, health indicators, educational indicators, the industrial sector contribution (Primary, Secondary and Tertiary) etc has been mentioned. Thereafter the comparison of both states has been made on the basis of physical & infrastructural indicators, health indicators, educational indicators, gross enrolment ratio, economic indicators have been done.

### Punjab: An Overview:

The rich and beneficial land is a great asset to Punjab growth. The conjunction of five streams makes Punjab's agrarian land rich and profitable. Roughly 82 percent of the state's territory is under cultivation in contrast to national level with an average of 40 percent. Punjab is one of the biggest wheat and rice producers in India. It is likewise a main exporter of rice, including the notable Basmati assortment.

Punjab offers ventures with a wide scope of financial and approach motivations under the Industrial and Business Development Policy, 2017. So as to improve the current trimming design and rebuild the motivating forces, the state government presented Agriculture Policy for Punjab 2013.

**Table 1:- Punjab State Parameters.**

Geographical area (lakh sq. km)	50,362
Administrative districts (No)	22
Population density (persons per sq. km)	550
Total population (million)	27.7
Male population (million)	14.6
Female population (million)	13.1
Sex ratio (females per 1,000 males)	893
Literacy rate (%)	76.70%

Source: <https://www.ibef.org/download/Punjab-March-2020.pdf>  
: <https://www.census2011.co.in/census/state/punjab.html>

This table expresses various parameters of Punjab state. It shows that Punjab state Geographical area is 50,362 lakh sq. Km. The total population of Punjab is 27.7 million, out of which male population is 14.6 million and female population is 13.1 million. The state is divided into 22 administrative units with population density of 550 persons per sq. Km. The Sex ratio i.e. females per 1,000 males is 893. The overall literacy rate of Punjab is 76.70%.

**Table 2:-** Punjab's Contribution to Indian Economy (2018-19).

Parameter	Punjab	India
GSDP as a percentage of all states' GSDP	2.72	100.0
GSDP growth rate* (%)	8.99	11.50
Per capita GSDP (US\$)	2,346.03	1,982.65

Source: <https://www.ibef.org/download/Punjab-March-2020.pdf>

\*in Rs terms, GSDP, per capita GSDP figures are taken at current prices, Exchange Rate used is average of 2017-18, i.e. 2018-19, i.e. US\$ = INR 69.89

The above table shows the Contribution of Punjab towards Indian Economy. It highlights that percentage gross state domestic product of Punjab is 2.72% among all states with growth rate of 8.99%. The GSDP growth rate of India is 11.50%. Also the per capita GSDP is US \$2,346.03 and India is 1982.65 US dollars.

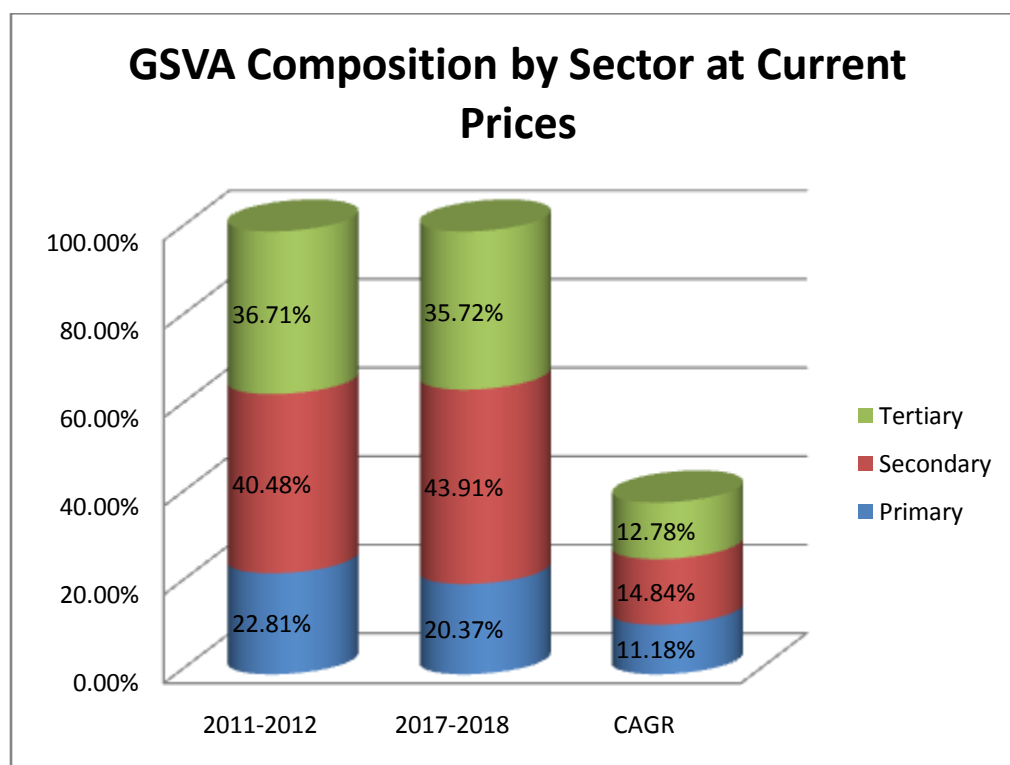
**Table 3:-** GSVA Compositions by Sector (at Current Prices).

Sector/ Year	2011-2012	2019-2020	CAGR
Primary	30.82%	28.39%	8.01%
Secondary	25.39%	24.90%	8.86%
Tertiary	43.79%	46.71%	10.01%

Source: <https://www.ibef.org/download/Punjab-March-2020.pdf>

The table shows the Gross State value added for primary, secondary and tertiary sectors of Punjab. The tertiary sector has been the growing sector among all with CAGR of 10.01 percent between and 2011-12 and 2019-20. It is also the largest contributor to the Punjab state economy in the financial year 2019-2020 with 46.71% share in the state's GSVA. The growth is first and foremost driven by transport, communications, real-estate, public administration, financial services, insurance, and other services.

The primary sector contributed 28.39% to Punjab's GSVA in 2019-20 and grew at 8.01% CAGR between 2011-12 and 2019-20. Lastly, secondary sector has grown up at 8.86 % CAGR in the same period and contributed 24.90 % in the financial year 2019-20.

**Figure 1:-** GSVA Composition by Sector at Current Prices.

High monetary and economic development of Punjab makes it as strong and wealthy. Punjab is called bread basket of India. The main sectors of Punjab are Agriculture and Allied Industries, IT, Electronics and Light Engineering Goods, Textiles Petrochemicals and Fertilizers. The state's GSDP (in Rs) developed at a compound yearly development rate (CAGR) of 9.97 percent between 2011-12 and 2018-19 as stated by report of Indian Brand Equity Foundation in March 2020. The state gives speculation openings in areas, for example, materials, agro-based ventures, IT and ITeS, car and auto segments, sports merchandise and light building products.

Punjab has well-built infrastructure facilities. Punjab has an all around created a sound social and industrial infrastructure. Its transport network system is truly outstanding in India, with a quick and easy access to key markets of Delhi-National Capital Region area.

### Gujarat: An Overview:

Gujarat state is one of the strongest port infrastructures in India.

**Table 4:-** Parameters- Gujarat.

Geographical area (lakh sq. km)	96,024
Administrative districts (No)	33
Population density (persons per sq. km)	308
Total population (million)	60.3
Male population (million)	31.5
Female population (million)	28.9
Sex ratio (females per 1,000 males)	919
Literacy rate (%)	79.31%

Source: <https://www.ibef.org/download/Gujarat-March-2020.pdf>

: <https://www.census2011.co.in/census/state/gujarat.html>

This table expresses various parameters of Gujarat state. It shows that Gujarat state Geographical area is 96,024 lakh sq. Km. The total population of Punjab is 60.3 million, out of which Male population is 31.5 million and Female population is 28.9 million. The state is divided into 33 administrative units with population density of 308 persons per sq. Km. The Sex ratio i.e. females per 1,000 males is 919. The overall literacy rate of Punjab is 79.31%.

**Table 5:-** Gujarat's Contribution to Indian Economy (2017-18).

Parameter	Gujarat	India
GSDP as a percentage of all states' GSDP	7.7	100.0
GSDP growth rate (%)	12.97	10.80
Per capita GSDP (US\$)	2,654	17,503

Source: <https://www.ibef.org/download/Gujarat-March-2020.pdf>

The above table shows the Contribution of Gujarat to Indian Economy for financial year 2017-2018. It highlights the percentage gross state domestic product of Gujarat is 7.7% among all states with growth rate of 12.97%. Also the per capita GSDP is US \$2,654 and India is 17,503 US dollars.

Gujarat has achieved the distinction of being one of the most industrially developed states. Per capita GSDP of state is US\$ 2,654 whereas of whole country is 17,503. The state government has framed policies in almost all key sectors such as industry, power, ports, roads, agriculture & minerals. The Gujarat Garment & Apparel policy was announced in October 2017 with the aim of creating 100,000 jobs in the state. Gujarat, with highest installed solar capacity, plans to announce new net metering policy providing financial support to solar power generating households. Gujarat has a perfect mix of rich labor pool and good infrastructural facilities. Gujarat has a good educational infrastructure with premier institutes in management, fashion, design, infrastructure planning & pharmaceuticals. There are industrial training institutes in each district to train manpower for the shop floor level.

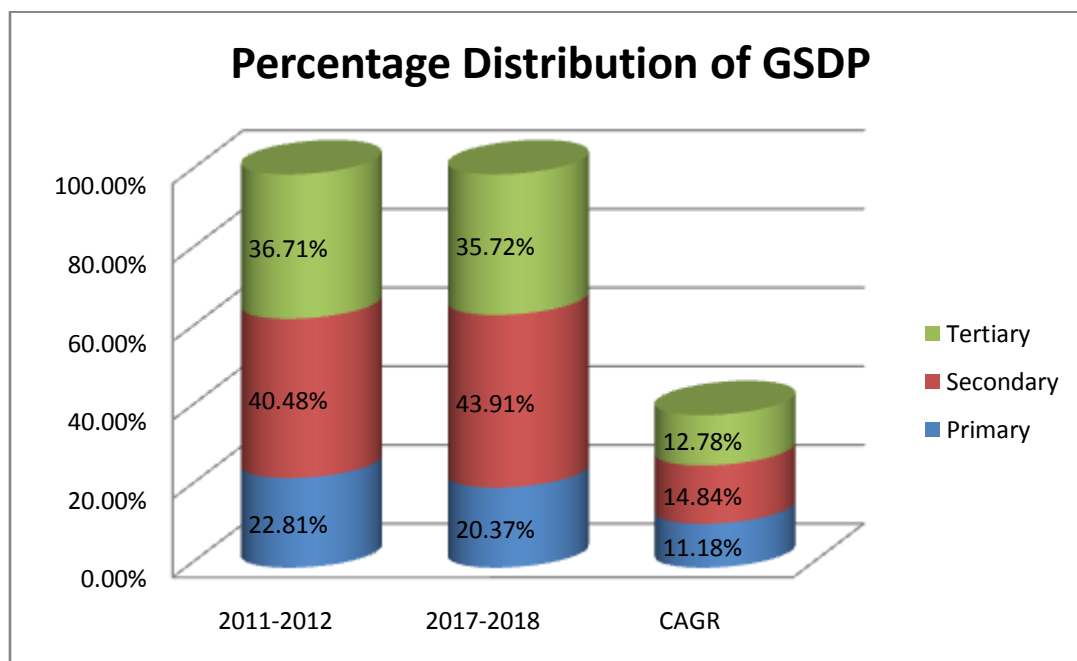
**Table 6:-** Percentage Distribution of GSDP.

Sectors	2011-2012	2017-2018	CAGR
Primary	22.81%	20.37%	11.18%
Secondary	40.48%	43.91%	14.84%

Tertiary	36.71%	35.72%	12.78%
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Source: <https://www.ibef.org/download/Gujarat-March-2020.pdf>

This table highlights the Percentage Distribution of GSDP of Gujarat among primary, secondary and tertiary sectors. The table shows that during financial year 2017-18, tertiary sector contributed 35.72 % to state's GSDP which is calculated at current prices. The shares of secondary sector are 43.91% and primary sector is 20.37%. The key performing sectors of Gujarat are Agro, food processing, Gems, Jewellery, Textile Apparel, Oil and Gas, Pharmaceuticals, Biotechnology, Chemicals and petrochemicals.



**Figure 2:-** Percentage Distribution of GSDP.

The above stated data highlights the compounded annual growth of Primary, secondary, and tertiary sector. It highlights that primary sector has increased at a CAGR of 11.18 percent between 2011-12 and 2017-18. With CAGR of 14.84%, secondary sector has been the fastest growing sector, during 2011-12 and 2017-18. The main increase in secondary sector has been majorly driven by increase of manufacturing, construction and electricity, and gas and water supply industries. Lastly, tertiary sector has shown the increase CAGR 12.78% between 2011-12 and 2017-18. The trade, hotels, real-estate, finance, insurance, transport, communications and other services sectors mainly drives the tertiary sector.

#### Physical Infrastructure of States:

**Table 7:-** Physical and Industrial Infrastructural Indicators of States.

Physical and Industrial Infrastructure	Gujarat	Punjab
Installed power capacity (MW) (as of February 2020)	35,013.11	14,205.42
Wireless subscribers (Mn) (as of December 2019)	67.44	39.1
Internet subscribers (Mn) (as of September 2019)	42.61	24.69
National highway length (km)	6635 (November 2019)	3274(March 2019)
Number of PPP projects (No) (December 2019)	130	62
Notified SEZs (No) (as of November 2019)	24	3
Smart Cities (to be created across nation)	6	3
Number of Airports	11	5

Source: <https://www.ibef.org/download/Gujarat-March-2020.pdf>

<https://www.ibef.org/download/Punjab-March-2020.pdf>

This table compares Physical Infrastructure in Gujarat and Punjab. Parameters of drawing this comparison are installed power capacity, internet subscribers, national highway length, number of PPP projects, number of airports, and notified SEZs. It shows that Installed power capacity as of February 2020, for Gujarat is 35,013.11 MW and Punjab is 14,205.42. The number of wireless subscribers till December 2019 is 67.44 Million and 39.1 Million for Gujarat and Punjab respectively.

The table further suggest that the Internet subscribers as of September 2019 in Gujarat are 42.61 million and in Punjab are 24.69 million. The length of National highway in Gujarat is 6635 km till November 2019 and 3274 km till march 2019 in Punjab. The Number of Public-Private Partnership (PPP) projects December 2019 is 130 for Gujarat and 62 in Punjab. The notified special economic zones till November 2019 for Gujarat are 24 and 3 in Punjab. The total number of airports in Gujarat is 11 and 5 in Punjab. Of the total smart cities to be created in the country, Punjab has three smart cities for the state, which include Amritsar, Jalandhar and Ludhiana whereas six cities in Gujarat, namely Ahmedabad, Surat, Vadodara, Rajkot, Dahod and Gandhinagar are shortlisted to be transformed into smart cities under the central government's Smart City Mission.

This is interpreted that the Gujarat has more Physical and Industrial Infrastructure development than Punjab. Gujarat has successfully developed world class infrastructure. The state also has an extensive road & rail network. A 2,200 km gas grid supplies gas to the industrial areas.

#### Social Indicators of States:

**Table 8:-** Comparison of Social Indicators of States.

Parameter	Gujarat	Punjab
Literacy rate (%)	78.03 %	76.7
Male literacy	85.75%	80.44 %
Female literacy	69.68%	70.73 %
Urban Areas	86.31 %	83.1
Rural Area Literacy Rate	71.71 %	71.4
Birth rate (per 1,000 population)	20.1	14.9
Sex Ratio	919	895

Sources: <https://www.census2011.co.in/census/state/punjab.html>

<https://www.census2011.co.in/census/state/gujarat.html>

This table highlights the social indicators for both States. From the table it has been analysed to that literacy rate in Gujarat is 78.03%, whereas it is 76.7% in Punjab. The male literacy level in Gujarat is 85.75% and Punjab is 80.44%. Also the female literacy level is been quoted in the table which says that female literacy rate in Gujarat is 69.68% and in Punjab it is 70.73%.

Besides the table suggest that the literacy rate in urban areas of Gujarat is 86.31% and rural area is 71.71% where the urban area literacy level is in case of Punjab is 83.1% rural area literacy rate is 71.4%. The birth rate per 1000 population in case of Gujarat is 20.1% and 14.9% in Punjab. The number of females per thousand males in Gujarat is 919 and in Punjab are 895.

#### Health Indicators:

**Table 9:-** Comparison of Health Indicators.

Health Infrastructure (as of December 2019)	Gujarat	Punjab
Sub-Centres	9,700	4,069
Primary Health Centres	2,124	566
Community Health Centres	3,472	369
Sub District Hospitals	393	55
District Hospitals	54	31
Health Index 2017-18	63.52 (4)	63.01(5)
Human Development Index	0.672 (21)	0.723 (9)

**Source:** Gujarat Economic Review, 2018-19, Health Management Information System, State Budget 2019-2020, Economic Survey of Punjab, State Budget 2019-20  
:https://en.wikipedia.org/wiki/List\_of\_Indian\_states\_and\_territories\_by\_Human\_Development\_Index

The health indicator indicates that the sub centres in Gujarat is 9700 and in Punjab is 4069 as of December 2019. The Number of Primary Health centres are 2124 in Gujarat and 566 in Punjab. The number of Community Health centres in Gujarat is 3472 and in Punjab are 369 only. The Sub District Hospital in Gujarat is 393 and there are only 55 in Punjab. Total number of District Hospital in Gujarat is 54 and 31 in Punjab.

This table highlights the health Index of the states for financial year 2017-18. It shows that the health index for Gujarat is 63.5 stands at 4<sup>th</sup> rank and in case of Punjab health Index is 63.0 ranks at fifth number. The Human Development Index for Gujarat is 0.672 which ranks the state at 21<sup>st</sup> number whereas the HDI for Punjab is 0.723 which ranks the state at 9<sup>th</sup> number in the country.

#### Education Indicators (Gross Enrolment Ratio (per cent)):

**Table 10:-** Comparison of Education Indicators.

Parameters Gross Enrolment Ratio (boys and Girls per cent)	Gujarat	Punjab
Elementary Schools (I-VIII 2017-18)	94.6	95.7
Secondary Schools (IX-X 2017-18)	77.1	88.9
Sr. Secondary Schools (XI-XII 2018-19)	46.5	70.6
Higher Education (18-23 years age group 2018-2019)	20.4	29.5

Source:https://www.indiabudget.gov.in/economicsurvey/doc/Statistical-Appendix-in-English.pdf

This table depicts the educational indicators for both states. It shows that Gross Enrolment Ratio (per cent) for combined for boys and girls in Elementary Schools (I-VIII 2017-18) in Gujarat state is 94.6% and 95.7% in Punjab. Similarly for Secondary Schools (IX-X 2017-18) the percent is 77.1% in Gujarat and 88.9% in Punjab. In case of Sr. Secondary Schools (XI-XII 2018-19) the percent is 46.5% in Gujarat and 70.6% in Punjab. Lastly for Higher Education (18-23 years age group 2018-2019) the percent is 20.4% in Gujarat and 29.5% in Punjab. The state government has undertaken many initiatives to encourage innovation in the education sector.

#### Economic Indicators:

**Table 11:-** Comparison of Economic Indicators (US\$ billions).

Indicators (Financial year 2019)	Gujarat	Punjab
Cumulative FDI equity inflows since April 2000 -2019	24 (September 2019)	2.15 (June 2019)
Proposed Investment	49.24 billion	2.637 billion
Number of Proposed investments	433	57
Merchandise Exports	67.40	6.03
Merchandise Exports April 2019-December 2019	49.61	4.05

**Source:** https://www.ibef.org/download/Gujarat-March-2020.pdf  
https://www.ibef.org/download/Punjab-March-2020.pdf

The table illustrates the comparison of both state in terms of FDI equity inflows, proposed investments, and merchandise exports. The FDI equity inflows since April 2000 -2019 for Gujarat is 24 billion and Punjab is 2.15 Billions. During the year 2019, there are total 433 investment intentions worth US\$49.24billion has been filed in Gujarat whereas Punjab Government received 57 Industrial Entrepreneur Memorandum Intentions worth US\$ 2.6370 billion. The Total exports from Gujarat state has been US\$67.401 billion during 2018-19 and US\$49.617 billion in April-December 2019. The total export from Punjab has amounts to US\$6.03 billion during 2018-2019 and it has reached US\$4.05 billion during April-December 2019.

#### NSDP per capita:

Net state domestic product (NSDP) is the state counterpart to a country's Net domestic product (NDP), which equals the gross domestic product (GDP) minus depreciation on a country's capital goods.

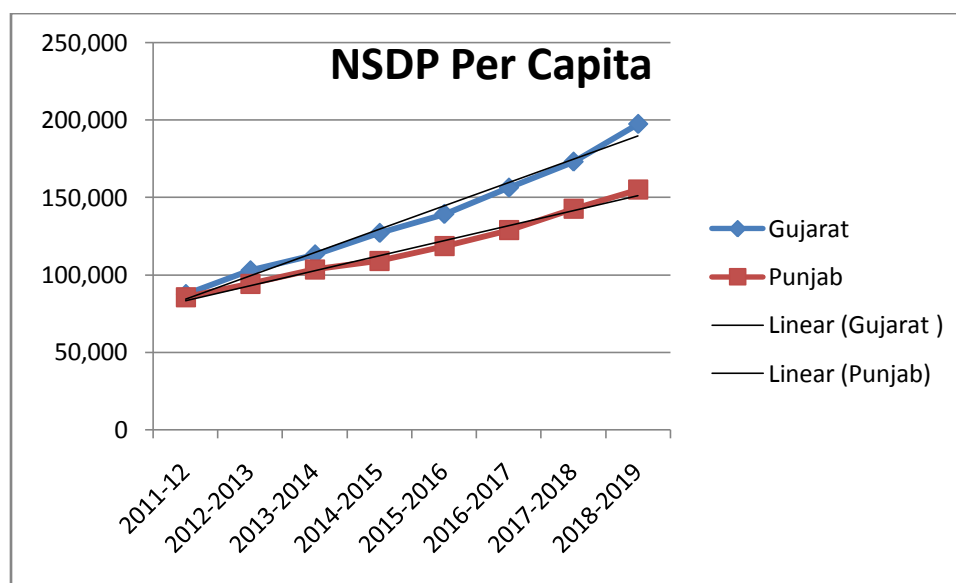
**Table 12:-** Net State Domestic Products (In Rs).

State/Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Gujarat	87,481	1,02,826	1,13,139	1,27,017	1,39,254	1,56,295	1,73,079	1,97,447
Punjab	85,577	94,318	1,03,381	1,08,970	1,18,558	1,28,780	1,42,477	1,54,996

Source: [https://en.wikipedia.org/wiki/List\\_of\\_Indian\\_states\\_and\\_union\\_territories\\_by\\_GDP\\_per\\_capita](https://en.wikipedia.org/wiki/List_of_Indian_states_and_union_territories_by_GDP_per_capita)

The table depicts the net state domestic product for Gujarat and Punjab state. It shows the NSDP value from financial year 2011 -2019. The value of NSDP for Gujarat in 2011-12 has been reported Rs. 87,481. The NSDP has risen to Rs. 1,02,826 in 2012-2013, Rs. 1,13,139 in 2013-2014, Rs. 1,27,017 in 2014-2015, Rs. 1,39,254 in 2015-16, Rs. 1,56,295 in 2016-2017, Rs. 1,73,079 in 2017-2018, and 1,97,447 in 2018-2019.

Similarly the NSDP in Punjab amounts to Rs 85,577 in 2011-2012, Rs. 94,318 in 2012-2013, Rs 1,03,381 in 2013-2014, Rs 1,08,970 in 2014-2015, Rs. 1,18,558 in 2015-2016, Rs 1,28,780 in 2016-2017, 1,42,477 in 2017-2018 and 1,54,996 in 2018-2019.

**Figure 3:-** Graphical Representation of NSDP Per Capita for Punjab and Gujarat.

From above figure it is observed that there is a constant rise in the per capita amount of the states. But the amount of the NSDP for Gujarat is higher than Punjab indicating that NSDP per capita income of Gujarat is more than Punjab. It is seen that linear trend line has been drawn in the figure. The linear trend line shows the behaviour of the stated data if there exists a certain pattern in the data set or not. The linear trend line shows the NSDP for both states is showing an upward rising trend. It is a good sign of growth of states.

#### Nominal GSDP from 2011-12 to 2020-21:

GSDP is the sum of all value added by industries within each state or union territory and serves as a counterpart to the national gross domestic product. The following table shows the annual growth in nominal GSDP for the financial years 2011–12 to 2020–21.

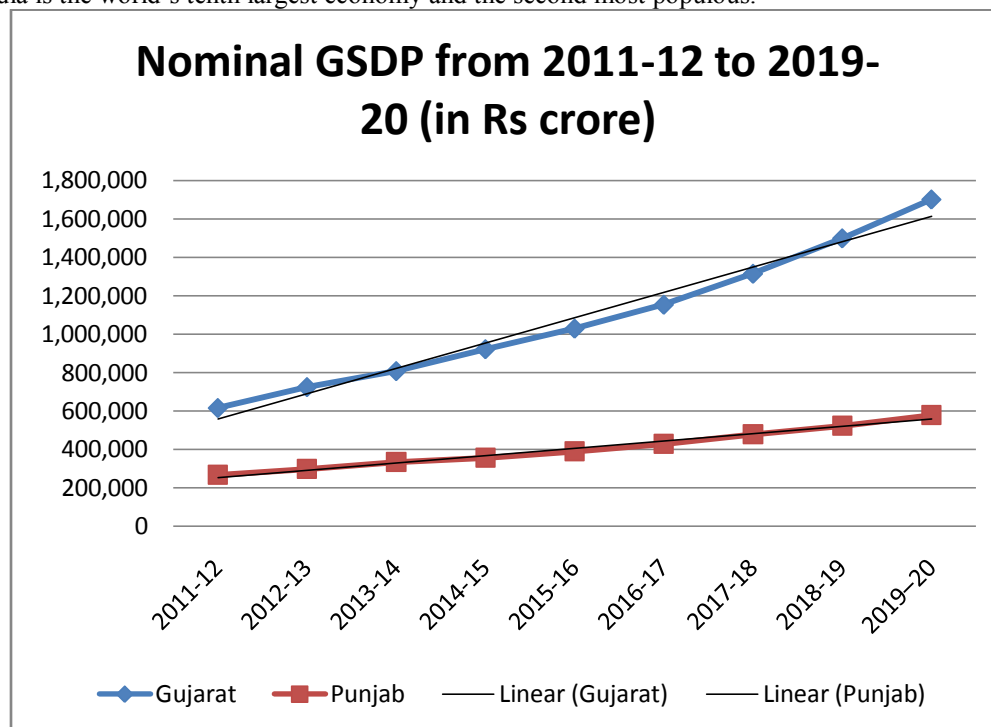
**Table 13:-** Nominal GSDP from 2011-12 to 2020-21.

Nominal GSDP	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Gujarat	6,15,606	7,24,495	8,07,623	9,21,773	10,29,010	11,53,327	13,14,680	14,99,013	17,01,495
Punjab	2,66,628	2,97,734	3,32,147	3,55,102	3,90,087	4,26,988	4,79,141	5,21,861	5,77,829

Source: [https://en.wikipedia.org/wiki/List\\_of\\_Indian\\_states\\_and\\_union\\_territories\\_by\\_GDP](https://en.wikipedia.org/wiki/List_of_Indian_states_and_union_territories_by_GDP)



The above table shows the annual growth in nominal GSDP for the 2011–12 to 2020–21. The figures are represented in Crore i.e. units of 10 million of Indian rupees at current prices. In India, the growth rate in GDP measures the change in the seasonally adjusted value of the goods and services produced by the Indian economy during the quarter. India is the world's tenth largest economy and the second most populous.



**Figure 4:-** Nominal GSDP from 2011-12 to 2019-20.

The graph shows that there is an upward rising trend noticed in the nominal gross state domestic product in both states. The rise in GSDP is less in Punjab as compare to Gujarat. The difference between the growths of Gujarat and Punjab is significantly noticed. Gujarat has higher GSDP worth than Punjab. Further the trend line indicates that there is a gradual rise in the GSDP of the states from 2011-2020.

#### Findings:

1. The results of GSDP ASDRT5G EDS shows that the percentage gross state domestic product of Gujarat is 7.7% among all states with growth rate of 12.97%. Also the per capita GSDP is US \$2,654 and India is 17,503 US dollars. The Gross state domestic product percentage of Punjab is 2.72% with growth rate of 8.99%. The per capita GSDP is US \$2,346.03 and India is 1982.65 US dollars. It indicates that contribution GSDP of Gujarat is more than Punjab.
2. The findings for Gross State value added of Punjab state shows tertiary sector has risen to top among all sectors with CAGR of 10.01 percent between 2011-12 and 2019-20 making it largest contributor to the Punjab state economy with in the financial year with 46.7% share in the state's GSVA.
3. The primary sector contributed 28.39% to Punjab's GSVA in 2019-20 and grew at 8.01 percent CAGR between 2011-12 and 2019-20. The secondary sector has grown up at 8.86 percent CAGR in the same period and contributed 24.90 percent in the financial year 2019-20.
4. The Percentage Distribution of GSDP of Gujarat state shows that during financial year 2017-18, tertiary sector contributed 35.72 % to state's GSDP which is calculated at current prices. The shares of secondary sector are 43.91% and primary sector is 20.37%.
5. The results of the study also suggested that primary sector has increased at a CAGR of 11.18 percent between 2011-12 and 2017-18. With CAGR of 14.84%, secondary sector has been the fastest growing sector, during 2011-12 and 2017-18. Lastly, tertiary sector has shown the increase CAGR 12.78% between 2011-12 and 2017-18.

6. This is concluded that the Gujarat has more Physical and Industrial Infrastructural development than Punjab in terms of installed power capacity, internet subscribers, national highway length, number of PPP projects, number of airports, and notified SEZs.
7. The social indicators analysis shows that literacy rate in Gujarat is 78.03%, whereas it is 76.7% in Punjab. The male literacy level in Gujarat is 85.75% and Punjab is 80.44%. Also the female literacy rate in Gujarat is 69.68% and in Punjab it is 70.73%.
8. The literacy rate in urban areas of Gujarat is 86.31% and rural area is 71.71% where the urban area literacy level is in case of Punjab is 83.1% rural area literacy rate is 71.4%.
9. The birth rate per 1000 population in case of Gujarat is 20.1% and 14.9% in Punjab. The number of females per thousand males in Gujarat is 919 and in Punjab are 895.
10. The health indicator indicates that the sub centres in Gujarat is 9700 and in Punjab is 4069 as of December 2019. The Number of Primary Health centres are 2124 in Gujarat and 566 in Punjab. The number of Community Health centres in Gujarat is 3472 and in Punjab are 369 only. The Sub District Hospital in Gujarat is 393 and there are only 55 in Punjab. Total number of District Hospital in Gujarat is 54 and 31 in Punjab.
11. The health index for Gujarat is 63.5 and in case of Punjab is 63.0. The Human Development Index for Gujarat is 0.672 which ranks the state at 21<sup>st</sup> number whereas the HDI for Punjab is 0.723 which ranks the state at 9<sup>th</sup> number.
12. The Gross Enrolment Ratio in Elementary Schools in Gujarat state is 94.6% and 95.7% in Punjab. The Gross Enrolment Ratio in Secondary Schools is 77.1% in Gujarat and 88.9% in Punjab.
13. In case of Sr. Secondary Schools Gross Enrolment ratio is 46.5% in Gujarat and 70.6% in Punjab. Lastly for Higher Education Gross Enrolment ratio 20.4% in Gujarat and 29.5% in Punjab. This shows that the gross enrolment in schools is more in Punjab than Gujarat.
14. There are three smart cities which will be created in Punjab whereas there are six cities in Gujarat which has been proposed to be transformed into smart cities.
15. The FDI equity inflows since April 2000 -2019 for Gujarat is 24 billion and Punjab is 2.15 Billions. Further, there are total 433 investment intentions worth US\$49.24billion has been filed in Gujarat whereas Punjab Government received 57 Industrial Entrepreneur Memorandum Intentions worth US\$ 2.6370 billion in financial year 2019.
16. Also Gujarat state has export worth US\$67.401 billion during 2018-19 whereas Punjab has export amounts to US\$6.03 billion.
17. The amount of the NSDP for Gujarat is higher than Punjab indicating that NSDP per capita income of Gujarat is more than Punjab. The linear trend line shows the NSDP for both states is showing an upward rising trend. It is a good sign of growth of states. There is a constant rise in the per capita amount of the states.
18. There is an upward rising trend in nominal gross state domestic product in both states although the rise in GSDP is more in Gujarat as compare Punjab. The trend line indicates that there is a positive rising pattern in the GSDP of the states from 2011-2020.

### Conclusion:-

The discussion of the present study shows that contribution GSDP of Gujarat is more than Punjab. This study has highlighted that Gujarat has better Physical and Industrial Infrastructure development than Punjab. The educational indicators suggest literacy rate in Gujarat is 78.03% and 76.7% in Punjab. Also the Gross Enrolment Ratio in Schools of Gujarat state is 94.6% and 95.7% in Punjab. The health index results show that HI for Gujarat is 63.5 and Punjab is 63.0 which are almost comparable. But Human Development Index represents that Punjab is in a better position than Gujarat. The FDI equity inflows since over last twenty years, for Gujarat is 24 billion and Punjab is 2.15 Billions and Gujarat has attracted more investment intentions than Punjab Government received in financial year 2019. The examination of NSDP suggests that NSDP per capita income of Gujarat is more than Punjab which is supported by a linear trend showing the NSDP for both states is showing an upward rising trend. There is a constant rise in the per capita amount of the states. There is an upward rising trend in gross state domestic product of both states although the quantum of GSDP is more in Gujarat as compare to Punjab.

It has been concluded that the contribution of both states to the overall development of the nation is significant. It can be said that Gujarat has better NSDP, GSDP, per capita income, far more improved infrastructural facilities. But the contribution of Punjab can't be ignored as it has higher human development index, educational indicators and contribution in various sector in which no other state can beat Punjab. All states are imperative part of the India. States must work in a positive and appropriate direction for the strengthening the position of whole nation at global level.

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