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Financial Inclusion: Comparative study of India and China

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Abstract

The beginning of the 21st century represents a watershed in the promotion of financial inclusion in the world. Both India and China have introduced significant financial sector reforms with a view to improving efficiency and enhancing stability of their financial systems. In an address, Dr. K.C. Chakraborty, Deputy Governor, Reserve Bank of India at the National Finance Conclave 2010 has mentioned that financial inclusion is no longer a policy choice but it is a policy compulsion today. And banking is a key driver for inclusive growth. However for attaining the objectives of inclusive growth there is need for resources and for resource generation and mobilization for financial is required. It plays very crucial role in the process of economic growth.

Financial inclusion has moved up the global reform agenda and become a topic of great interest for policy makers, regulators, researchers, market practitioners and other stake holders. The increased emphasis on financial inclusion reflects a growing realization of its potentially transformative power to accelerate development gains. Inclusive financial systems provide individuals and firms with greater access to resources to meet their financial needs.

The heightened interest reflects a better understanding of the importance of financial inclusion for economic and social development. It indicates a growing recognition that access to financial services has a critical role in reducing extreme poverty, boosting shared prosperity, and supporting inclusive and sustainable development. The interest also derives from a growing recognition of the large gaps in financial inclusion.

Experts agree that basic banking services are not yet accessible to all, and there is still as gap between demand for and supply of banking services to rural household and SMEs. A World Bank survey found half of the world's adult populations – more than 2.5 billion people – do not have an account at a formal financial institution.

The present paper focuses on to understanding inclusive growth phenomenon its need and financial inclusion as an instrument to attain it and to draw a comparison between financial inclusion of two neighbouring countries India and China.

The research has been carried out using primary data collected by World Bank during research on Global Financial Inclusion as well as other secondary data sources.

Keywords: *Financial Inclusion, Inclusive Growth, Financial System, Global Reform*

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Financial Inclusion: Comparative study of India and China

Introduction:

Finance is very effective tool in spreading economic opportunity and fighting poverty. Any nation should have a relatively comprehensive financial system and wide network of banks. After the world wars, most developed nations vigorously implemented rural finance policies, which focused primarily on the provision of subsidized credit to the rural population, through state controlled or directed institutions.

In simple terms, Financial Inclusion can be defined as the delivery of the financial/banking facilities to all people in a fair, transparent and equitable manner at an affordable cost. Dr. K.C. Chakraborty, Deputy Governor, RBI at the National Finance Conclave 2010 has mentioned that financial inclusion is no longer a policy choice but it is a policy compulsion today. And banking is a key driver for inclusive growth. However for attaining the objectives of inclusive growth there is need for resources and for resource generation and mobilization for financial is required. It plays very crucial role in the process of economic growth.

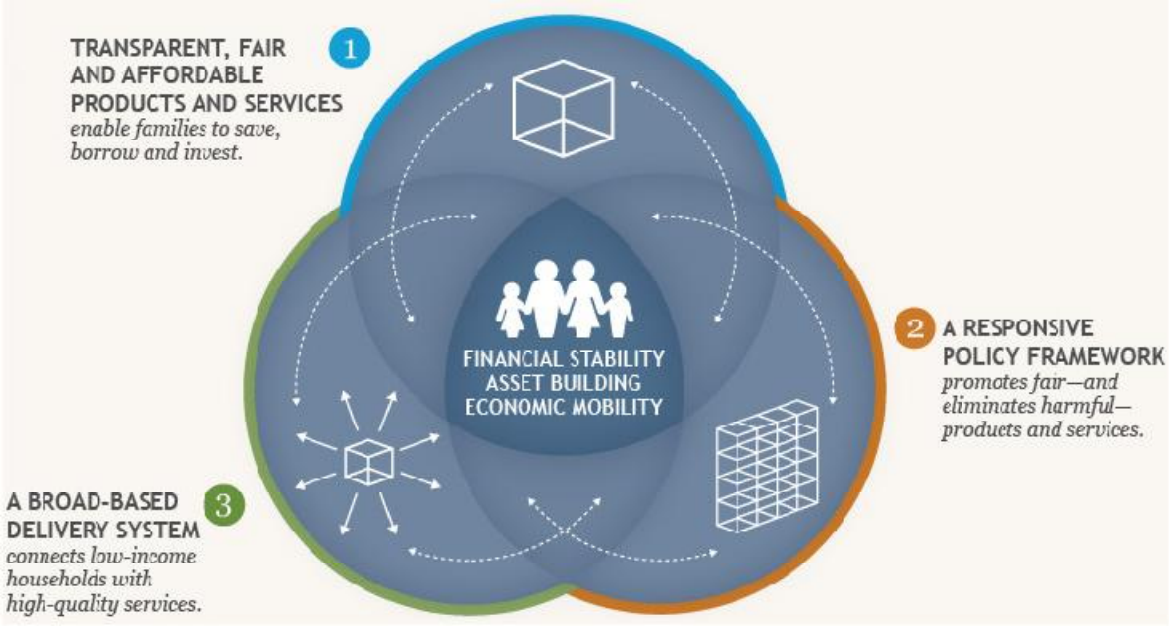
Financial Inclusion rests on three pillars viz. access to financial services, affordability of such services and actual utilization of such services. Financial Inclusion can be achieved only if all the three pillars show favorable results.

"The stark reality is that most poor people in the world still lack access to sustainable financial services, whether it is savings, credit or insurance. The great challenge before us is to address the constraints that exclude people from full participation in the financial sector. Together, we can and must build inclusive financial sectors that help people improve their lives."

- Kofi Annan, Former United Nations Secretary - General.

Statement of Kofi Annan indicates that Financial Exclusion at the wider level of the society and the nation leads to social exclusion, poverty as well as all other associated economic and social problem. Another cost of Financial Exclusion is the loss of business opportunity for banks. Banks often avoid extending their services to lower income segment due to initial coverage expanding cost which may sometimes exceeds the revenue generated from such operation.

Figure: 1 – How Inclusive Finance can be used



Source: Ford Foundation, US Strategies; How High-Quality Financial Services Help Low-Income

From the figure 1, it is clearly understand that the given three dimensional approach which is required for Financial Inclusion and its outcomes. Thus if we are talking about inclusive growth with stability, it is not possible without Financial Inclusion.

Literature Review:

Debashis A (2013) empirically found that financial literacy and level of awareness continues to remain an issue with regard to usage of financial services/products. The Indian financial sector is primarily dominated by banking industry, so banks play a vital role in promoting the financial inclusion in the country. Further, to see the real impact of financial inclusion on the rural poor people and outcome indicates that there is a negative correlation between poverty numbers and financial inclusion. It means better inclusion may lead to lower poverty numbers.

Laxmi M (2014) reveled in her study that financial inclusion picked up in the last few years with many new innovations like mobile banking, ultra small branches etc., but still it is far from adequate. She found mobile phone connections even with poor people but they are not aware of mobile banking.

Shamika R. and Shruti G. (2015) have shown that unless financial instruments are designed for specific needs of the poor, they remain underutilized and costly for the providers, and therefore, non-sustainable.

S M Hussain, Roberto G L and M M Krishna (2014) found in their research that lack of effective governance has been one of the major reasons for slow progress in implementing

Financial Initiatives. They identified that China is facing serious lack of financial literacy in rural parts and amongst low-income individuals and also geographic limitations, such as size and inaccessibility.

Aggarwal V (2014) explained that India is at moderate level of Financial Inclusion as compared to other countries on different grounds. He examined that there is a close relationship between Financial Inclusion and development. But due to the constraints like financial literacy, poverty, advance technology etc., the inclusive growth is not possible. Literacy is a prerequisite for creating investment awareness, and hence innately it seems to be a key tool for Financial Inclusion.

Jadhav N and Raj J (2005) found that although financial systems in both India and China continue to be dominated by the public sector banks, there were significant differences in the initial conditions. At the time of the initiation of the reforms, while India had a well-developed financial system, China had to start virtually from nothing. The financial system in China continues to face a number of challenges, especially poor asset quality of banking system.

Kishor B (2015) found in his research that financial inclusion is a major instrument in the process of economic development of poorest strata of the society. He also stated that in-spite of expansion of banking facilities; majority population is still not gamut of financial services and is limited to upper income group and educated segment. The study also revealed that the percentage of population with age 15+ saving with financial institutions was just 12 percent in India with compare to 32 percent in China.

Kumari R (2014) found in her study that only 34 percent of population engaged in formal banking, India has 135 million financially excluded households, the second highest number after China. The real rate of financial inclusion in India is very low and about 40 percent of bank account holders use their accounts not even once a month. Financial inclusion has far reaching consequences, which can help many people come out of abject poverty conditions. There is a need for coordinated action between the bank, the Government and others to facilitate access to bank accounts amongst the financially excluded.

Radhika D and Ghosh M (2013) stated that inclusive growth attainment depends a great deal on equitable distribution of growth opportunities and benefits. The issue of expanding the geographical and demographic reach poses challenges from the viability/sustainability perspective and appropriate business model are still evolving and various delivery mechanisms are being experimented with by the various government agencies at the central and state level. But somewhere the efforts taken are not good enough to encounter this staggering issue of financial exclusion. They also indicated that financial literacy and level of awareness continues to remain an issue with regard to usage of financial services/products.

Pandey S (2016) revealed that there is a long way to go for the financial inclusion to reach to the core poor. Mere opening of non-frill bank accounts is not the purpose or the end of financial inclusion while formal financial institutions must gain the trust and goodwill of the poor through developing strong linkages with community based financial ventures and cooperatives. The better financial inclusive growth can be done through the using the aid of technology like mobile banking services and the knowledge of banking services to all individual of the country.

Research Objective:

The specific objectives of the present study are to achieve the following objectives:

- To study the comparative status of financial inclusion in India and China
- To study the status of financial inclusion in India and China with reference to gender, age and income group
- To study the financial inclusion in terms of access to debit card and credit card
- To study the position in financial inclusion of India and China in global context

Research Methodology:

The present study has been carried out through primary data collected by World Bank during research on Global Financial Inclusion database 2014. The Global Findex is providing better solution to the government through findings the gap in the financial inclusion data landscape. The Global Findex database provides comparable indicators showing how people around the world save, borrow, make payments and manage risk. It is the world's most comprehensive set of data providing consistent measures of people's use of financial services across economies and overtime. The 2014 Global Findex database provides more than 100 indicators, including by gender, age group, and household income. The data collection was carried out in partnership with the Gallup World Poll, are based on interviews 7184 in both India and China, out of it 3000 means 41.8% individuals from India and 4184 i.e. 58.2% from China.

Financial Inclusion in India and China:

Before proceed with the further research outcomes, the study have been conducted on the base factor of financial inclusion that whether respondent has an account or not. For most people, owning an account provides an entry point into the formal financial system. The Global FINDEX, account ownership is defined as having an account either at a financial institution or through a mobile money provider.

Table 1: Classification of Respondents by Having an Account

Has an account		No. of Respondents	Percentage
	yes	4860	67.7%
	no	2324	32.3%
Total		7184	100.0%

The above table indicates that from 7184 respondents only 4860 respondents i.e. 67.7 percent people have an account. From the mentioned outcomes it is interpreted that almost one third of the population eligible for opening the account still not covered or opened the account.

Comparative Picture of Financial Inclusion India and China with World:

Both China and India saw strong growth in account ownership between 2011 and 2014 – in China account penetration increased from 64 percent to 79 percent, and in India from 35 percent to 53 percent. Translated into absolute numbers, this growth means that 180 million

adults in China and 175 million in India become account holders – with the two countries together accounting for about half the 700 million new account holders globally.[1]

Table 2: Classification of Respondents by Having an Account in India and China		
Country	No. of Respondents	Percentage
India	1677	55.9%
China	3183	76.1%
World	-	62.0%

The mentioned data in table 2 seems that worldwide, 62 percent of adults have an account. There is wide gap between having an account in India and China. In India only 55.9 percent respondents have an account whereas 76.1 percent respondents having an account in China. It is also indicated that India also behind global financial inclusion.

Account Ownership Vary by Individual Characteristics:

Grouping people by such characteristics as gender, age, education or income can reveal important gaps in account ownership. This section documents gaps between two countries India and China along where both the countries stand with world.

Financial Inclusion and Gender:

Financial inclusion is important for all irrespective of gender of an individual even female should not behind. According to the Global Findex database, globally, 65 percent of male reported having an account, while only 58 percent female do. There is virtually no gender gap in account ownership in high-income economies, but in lower-income economies or in developing countries, there is a large gender gap in account ownership found.

Table 3: Gender Wise Classification of Respondents by Having an Account			
	Country		
Gender	India	China	World
male	64.0%	80.3%	65.0%
female	46.9%	72.6%	58.0%
Total	55.9%	76.1%	-

The above data of India also reveals the gender disparities in account ownership. Form the total male respondents, 64 percent having an account in India whereas this ratio is 80.3 percent in China, but in the case of female this figure is only 46.9 percent in India and 72.6 percent in China. This is showing wide gap in India compare to China and global scenario. In having account ownership of male in India is almost near to world data but too much less than female ratio in China.

The chi-square tests of independence were performed to study the relation between gender and having account ownership for India and China both. The relation between these variables was significant in India and China both, in India, X^2 (1, N = 3000) = 87.946, $p<0.05$ while for China X^2 (1, N = 4184) = 33.686, $p<0.05$. Male are more financially included than female. But this disparity is largest in India than china.

[1] "Who are the newly banked? A look at China and India", The Global Findex Database 2014, pp. 25

Financial Inclusion and Age:

Age is another characteristic that matters for likelihood of account ownership. The respondents were grouped based on their age to compare the financial inclusion at different age group. The Global Findex database indicates that across all regions, young adults (ages 15-24) are less likely than older adults (age 25 and above) to have an account. Overall, the gap in having account between young adults and older ones remained constant between 2011 and 2014. This gap is widened in lower-income economies or developing economies. By contrast, in high-income economies the gap narrowed; here, account ownership increased among young adults while older ones were already universally banked.

The classification of respondents by their age group and account ownership in India and China is presented in below table.

Table 4: Age Wise Classification of Respondents by Having an Account

Country	Age Recoded					Total
	upto 20	21-30	31-40	41-50	more than 50	
India	38.4%	53.8%	61.3%	65.4%	55.9%	55.9%
China	56.6%	89.1%	83.3%	79.0%	68.7%	76.0%

From the above table, it is come to know that the young adults are less likely to have an account than older adult and it is also support to the outcome of the Global findex research. But it is up to some higher age, then after people moving far from having an account. It can be observed from the table that only 38.4 percent upto 20 years adults have an account ownership in India while it is 56.6 percent in China, it means that even though less than 20 years age group people also having an account in China. In India, having an account ownership is increasing with age increase upto 50 but decline thereafter, where in the case of China, it is also increase with age but after 40 years declining the ownership in account. That is people of China also having ownership of account at early age than India but discontinue with the ownership of account is very early than people of India.

The chi-square tests of independence were performed to study the relation between age and having account ownership for India and China. The relation between these variables was significant in India and China both, X^2 (4, N = 3000) = 78.715, $p<0.05$ and X^2 (4, N = 4157) = 178.240, $p<0.05$ in India and China respectively. It means that there is a correlation with age and having an account.

Financial Inclusion and Education:

Education level of the people cannot be neglected when the study is conducted for financial inclusion. The level of the education is also one of most important factor for financial inclusion. The relationship between education level of people and financial inclusion is working under two ways. One side education leads to financial inclusion and other side financial inclusion support the educational accomplishment and development. The mentioned table presents the classification of respondents by the level of education and having an ownership of account.

Table 5: Education Wise Classification of Respondents by Having an Account				
	Respondent education level			
Country	Completed primary or less	secondary	Completed tertiary or more	Total
India	47.7%	65.6%	85.8%	55.9%
China	70.1%	86.2%	93.2%	76.1%

From the above table, it can be seen that whenever education level of the people increases then financial inclusion also increases. In India, 85.8 percent respondents completed tertiary or more education having an account, this ratio is 93.2% in China. It is also found that even though respondents have completed primary or less education but 70.1 percent of those respondents having an account ownership in China. Whereas, in India it only 47.7 percent which is very less than China.

The chi-square tests of independence were performed to study the relationship between education level and having account ownership for India and China. The relation between these variables was significant in India and China both, X^2 (3, N = 3000) = 163.105, $p < 0.05$ and X^2 (4, N = 4184) = 168.659, $p<0.05$ in India and China respectively. It means that there is a highly correlation with education level and having an account.

Financial Inclusion and Income Quintiles:

A comparison of account penetration across within-economy income quintiles shed light on the role of relative income. As per the Global Findex, the poorest 40 percent of households are less likely than others to have an account. Account ownership in the population also reflects absolute income level across regions. In the developing or low-income economies account ownership among the poorest 40 percent of households is particularly low, whereas it is almost universal in high-income economies. There is a positive and direct impact of the financial inclusion on the income of the individual which helps the individual to come out of poverty. The financial inclusion in terms of having account ownership at a different level of income of the respondents is presented in below table.

Table 6: Income Wise Classification of Respondents by Having an Account						
	Within-economy household income quintile					
Country	poorest 20%	second 20%	middle 20%	fourth 20%	richest 20%	Total
India	47.7%	48.7%	49.7%	57.6%	70.7%	55.9%
China	63.8%	70.9%	75.4%	82.1%	86.3%	76.1%

The above table data indicates that the level of financial inclusion increases with the income quintile of households. In India, 47.7 percent individual from the poorest 20 percent income quintile having an account ownership against 70.7 percent individual form the richest 20 percent income quintile. Whereas, in case of China, 63.8 percent respondents from the poorest 20 percent quintile having account against 86.3 percent respondent from richest 20 percent quintile having an account.

The chi-square tests of independence were performed to study the relation between having account and income level. The relation between these variables was significant in India and China both, in India, X^2 (4, N = 3000) = 100.079, $p<0.05$ while for China X^2 (4, N = 4184) = 155.246, $p<0.05$. From these result, it can be seen that China have higher significant impact than India on having an account and income level of household. People are more financially included if income quintile increase within economy.

Have a Debit Card and Use of Debit Card:

There is always question how account holders access their accounts. Having debit card is one of the best options to access the account easily. Debit cards are far more common – a far more likely to be used by those who have them. In many cases people have the account but they don't have a debit card to use.

Table 7: Classification of Respondents by Having an Account and Debit Card

		Has a debit card		
	Country	yes	no	Total
Has an account	India	733	930	1677
		43.7%	55.5%	100.0%
	China	1895	1233	3183
		59.5%	38.7%	100.0%

Table 8: Classification of Respondents by Having Debit Card and Use of Card

	If has debit card: used card in past 12 months		
country	yes	no	Total
India	351	376	733
	47.9%	51.3%	100.0%
China	712	1177	1895
	37.6%	62.1%	100.0%

It is clearly seen from table 7 that in India, 55.5 percent respondents do not have debit card even though they have an account ownership and this ratio is only 38.7 percent in China. There is a vide difference between India and China in the case of people have an account but not having debit card. But from table 8, it is indicated that in India 47.9 percent respondents use the debit card in last 12 months while in China it is only 37.6 percent that means people of China have the higher debit card but lesser use than people of India. As per the Global Findex report India is also behind than other developing economies where 55 percent of adults having an account reported owning a debit card.

Have a Credit Card and Use of Credit Card:

Credit card is also one of the alternate of debit card to pay bill and make payment. While a credit card does not need to be linked to an account. According to Global Findex, less than 0.5 percent of adults around the world own credit card but do not have an account at a financial institution. Those who own a credit card are very likely to use it. Across both high-income and developing economies the share of credit card holders who reported having used their card in the past 12 months typically exceeded 80 percent in 2014.

Table 9: Classification of Respondents by Having an Account and Credit Card				
		Has a credit card		
	Country	yes	no	Total
Has an account	India	150	1505	1677
		8.9%	89.7%	100.0%
	China	660	2506	3183
		20.7%	78.7%	100.0%

Table 10: Classification of Respondents by Having Credit Card and Use of Card			
	If has credit card: used card in past 12 months		
country	yes	no	Total
India	121	29	150
	80.7%	19.3%	100.0%
China	600	76	676
	88.8%	11.2%	100.0%

The table 9 is indicating that the respondents have an account and having a credit card and out of that 89.7 percent respondents have an account but not credit card in India. This figure is 78.7 percent in China; it means in India and China people have an account doesn't mean that they have a credit card. India is also behind China in the case of having credit card by the adults. The next table 10 exposes the data of adults have a credit card but whether they have used in past one year or not. The data reveals that 80.7 percent and 88.8 percent of adults who have credit card they have used it in past 12 months in India and China respectively. So it is also supporting the outcome of the World Bank's report.

Conclusion:

From the above study and outcome, we can conclude that financial inclusion has been broadly recognized as critical in reducing poverty and achieving inclusive economic growth. Financial inclusion as its most basic level starts with having an account. As per the Global Findex database, both China and India saw strong growth in account ownership between 2011 and 2014 – in China account penetration increased from 64 percent to 79 percent, and in India from 35 percent to 53 percent. As per the outcomes of comparative analysis between India and China, the study has found that India is too much behind in the case of financial inclusion. But it doesn't stop there-only with regular use do people fully benefit from having an account. As we have discussed in the study that financial inclusion rests on three pillars viz. access to financial services, affordability of such services and actual utilization of such services. Financial Inclusion can be achieved only if all the three pillars show favorable results. The study has also found the vide gender difference in having an account the base for the financial inclusion which requires the quick attention of the government and policy makers. Account ownership is an important first step toward financial inclusion. But once people have an account, the next step is to ensure that they actually use their account and in ways that allow them to fully benefit from having one.

References:

1. Aggarwal V (2014) Financial Inclusion in India: An Analytical Study, International Journal of Commerce, Business and Management, Vol. 3, No. 6, pp. 841-849
2. Debashis Acharya (2013) Financial Inclusion in India: Why not happened? Indian Institute of Banking and Finance, Macro Research Project, September 2013
3. Jadhav N and Raj J (2005) Financial System in India and China – A Comparative Study, Presented at the International Conference on Economic Reforms in India and China –Emerging Issues and Challenges, January 2005, pp. 1-20
4. Kumari R (2014) Financial Inclusion and Indian Economy, GE – Intenational Journal of Management Research, Vol. 2, Issue – 12, pp. 167-175
5. Kishor B (2015) Micro Level Analysis of Financial Inclusion in India: Where Do We Stand?, Global Journal of Engineering, Science & Social Science Studies, Vol., Issue – 6, pp. 1-13
6. Laxmi M (2014) Financial Inclusion in India, Innovative Journal of Business and Management, Vol. 3, Issue 4, pp. 42-46
7. Pandey S (2016) Role and Extent of Financial Inclusion in India, GE- International Journal of Management and Research, Vol. 4, Issue – 4, April 2016, pp. 303-315
8. Radhika D and Ghosh M (2013) Financial Inclusion for Inclusive Growth of India – A Study of Indian States, International Journal of Business Management and Research, Vol. 3, Issue 1, pp. 147-156
9. Shamika R. and Shruti G. (2015) Advancing Financial Inclusion in India Beyond Jan-Dhan Yojana, Brookings India Impact Series, Brooking Institution India Center, pp. 1-15
10. S M Hussain, Roberto G L and M M Krishna (2014) Critical Review of Financial Inclusion in G20 Countries with Focus on India
11. World Bank (2015) Global Financial Inclusion (Global Findex) Database 2014 http://datatopics.worldbank.org/financialinclusion/

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Changes on working environment of coffee Plantation labour and Small Growers in Tamil Nadu

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Abstract

India is one of the largest producers of the plantation crops in the world. About, three fourth of the export earnings are from the agricultural sector and one fourth of the earnings from oil exports, it clearly indicates that the plantation sector is crucial to the Indian economy. The direct employment in this sector is more than 2 millions. Coffee plantation alone contributes the employment of nearly 5.94 lakhs workers directly and indirectly.
Past 15 years back Robusta was the premier of export quality and major preferred by the buyers from Indian Coffee Planters. But, in recent years Arabica has dominated for export value and choice preferred by the planters. The open market system is followed for selling coffee beans. Whereas, coffee board was controlled market system in past seven years back.

The labourer could do more work on the basis of additional quantity produced. They are engaged only when there is work based on which additional remuneration is paid. There is no time limit for regularize to the labourers. Ultimately, the owners who try to engage the cheap labour practice in their estates instead of actual wage they got. Most of the Southern part of large size Coffee Estate owners engages contractual cheap wage practice.But, small Grower's practice is differentiating from large size Growers.

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Changes on working environment of coffee Plantation labour and Small Growers in Tamil Nadu

Introduction:

India is one of the largest producers of the plantation crops in the world. About, three fourth of the export earnings are from the agricultural sector and one fourth of the earnings from oil exports, it clearly indicates that the plantation sector is crucial to the Indian economy. The direct employment in this sector is more than 2 millions. Coffee plantation alone contributes the employment of nearly 5.94 lakhs workers directly and indirectly.
The transition impact has been made in coffee Plantation in Globalized Era; in particular, Indian coffee Growers were facing a number of bottlenecks (price fluctuation, labour shortage, wild animals towards cultivation, marketing, maintaining lands (estate), etc.

This trend is continuing and drastically changing their existing cultivation pattern till now. Karnataka and Kerala states are safer side in cultivation due to sufficient monsoon supports for mass production. Moreover, their crops have been highly considered as cash crops which lead to export earning Zone from the plantation. In this decade 2005-2007, this sector had undergone from export and marketing issues among small growers. During 2001- 2003, 2011-2012 Monsoon failure has occurred in major parts of India.

Coffee Plantation is also not an exempt case. Subsequently, this crops (coffee) growth was gradually even sometimes drastically increased with the support of sub-divisional crops-viz; orange, pepper, beans, banana, turmeric, Cardamom, etc. The fluctuating trend of coffee market in worldwide was another reason. Whenever the mass production has occurred in Brazil and Colombia, automatically our export becomes lower than the previous year and our demand also attaining low. These effects would cause into paradigm shift where there is agrarian communities, labourers who dwelling in hills & semi hill areas after 3 to 5 years. Because capitalist who trying to buy the Plantation areas (required and selected places) from plain regions, particularly industrial areas in order to expand resort, guest house, clubs, etc. Furthermore, frequent tree cutting also happened in these regions due to low income from plantations. Therefore, they are expanding the vegetable cultivation instead of plantation crops. Hence, afforestation is adversely affected.

Present Scenario

Past 15 years back ***Robusta*** was the premier of export quality and major preferred by the buyers from Indian Coffee Planters. But, in recent years ***Arabica*** has dominated for export value and choice preferred by the planters. The open market system is followed for selling coffee beans. Whereas, coffee board was controlled market system in past seven years back. During that time, the price was fixed by the Coffee Board. Besides, it has offered some benefits to the Small Growers. At the same time some of the private traders who offered a higher price to coffee beans rather than coffee board. Hence, many of the grower's willingness towards open market for more profit.As a result, too much fluctuation was occurred when consumption became low or mass production or sometimes nature of trade

affairs due to Global Policy. In this context, how can responsible for market controlled by Coffee Board?

Secondly, mismatch and failure of monsoon were disappointed the coffee cultivation by Growers. They were unable to cope up with fewer prices. During that time (currently also) they adjusted livelihood with sub –Divisional crops such as, pepper, Banana (lower panels and Nilgiris only) and turmeric (Yercaud only). In the meantime, labour charges and maintenance also high. Despite, they adjusted or compensated for labour charges and no labourers available in their locality while harvest season. Sometimes NREG Programme is severely affected (lower pulneys).

Third, wild animals are devastating horticulture crops includes coffee. Forestry is not concentrating for wild animals while invading of coffee estates as well as other crops. Instead, it disturbed the growers in terms of Tree Cutting for sale of legalized tree cut even though they got permission and license. This effort or condition is the reason that the growers are growing the additional trees where there is a large gap between shade trees or sub divisional crops.But these trees are allowed to cut whenever they (growers) required. Thus 1 acre is eligible and reasonable for 700 coffee plant (4ft to 5 ft) along with 400 Silver Oak (10 ft to 10 ft) , 300 (10ft to 10ft) other trees. Among these additional trees, Growers would preferably go to cut around 100 trees per annum. They plant the trees 4 months in advance before tree cutting.

Sometimes, unnecessary penalties imposed to Growers like, any death cause of wild animals in their boundary of land, buried bushes for removal of wastages for which land is going to plant trees or make ready to cultivate. These are the constraints of practical and genuine incidents faced by the Growers. Therefore, 40% of the growers have kept idle their land and at least 20% of the growers are allotted for leased to someone who willing to plant for some durationlike10 years. If this condition continues, the total sector will decay soon. It causes on an endangered environment due to removal of trees. They are looking forward to replant or alternative action for their livelihood ex; floriculture (rose) herbal, new varieties of additional trees etc.

About 13% of the Agriculture export occupied under coffee plantation. Second, if a coffee estate would be expanded, afforestation and ecosystem value have properly sustained. Semi hill areas will get good employment avenue. The organic farming method will be engaged by growers. Multi type trees would preferably plant by smaller growers in the regions of Salem, Dindigul ,Theni Districts.

Coffee Cultivation in Dindigul and Salem Districts

Based on baseline survey, we identified the majority of Coffee Plantation areas which were not properly cultivated or idle of land in Lower Pulneys and the growers were unwilling to engage plantation in Yercaud. Therefore, Dindigul and Salem districts of Tamil Nadu State have been selected for our study purpose.

DINDIGUL DISTRICT (PULNEYS Region)

S.No	Area	Number of Growers
1	Thandikudi	650(250)
2	Pannaikadu	670(300)
3	Perumalmalai	550(170)
4	Aadalur	1400(850)
5	KC Patti	1870(680)
6	Sirumalai	178 (37)

Source: Baseline survey June-July 2014 (Figures in brackets are idle lands of small growers, Despite the potential of cultivation)

SALEM DISTRICT (YERCAUD Region)

S.No	Area	Number of Growers
1	Nagalur	245(20)
2	Manjakuttai	350(84)
3	Muzhuvi	440(62)
4	Vazhavanthi	180(NA)
5	Madamangalam	436(70)
6	Thalaicholai	370(N.A)

Source: Baseline survey July-August 2014 (Figures in brackets are idle lands of small growers,Despitethe potential of cultivation)

Labourers' Perspective

Coffee industry is one of the largest employment providers in Karnataka, Kerala, and Tamilnadu. Paradoxically, after globalization policy had emerged in various sectors, plantation sector was also much affected in the form of labour layout practice by the large size tea and coffee estates. Despite, we have secured provisions by various welfare schemes by the ministry of labour and plantation labour Act 1951; we are unable to fulfill the basic needs of plantation labours. Tremendous changes have occurred in tea, coffee and cardamom plantations.

Tea Plantation involves labour intensive with whole year. But, coffee estate is providing seasonal work. It has abnormal labour intensive during harvesting time. The labourers engage themselves with other type of horticulture work like orange, Banana, etc. in remaining days. The major work is handled by the coffee Estate are berries plucking, processing, trenching, spraying, etc. According to the coffee board of India in 2010-2011, 5, 94, 708 workers were involved in coffee Plantation.

Coffee is a highly labour intensive crop requiring about 400 man days/hectare per year for Arabica and 300 man days/hectare per year for Robusta. The Parliamentary Standing Committee was informed that in recent years there has been a serious shortage of workers in plantation areas due to employment opportunities generated by MNREGS and also due to migration of workers to urban areas for better avenues. This has adversely affected the timely completion of certain critical operations which is having an impact on production, productivity and quality of coffee. The Committee has noticed two issues pertaining to problems of shortage of labour, one is the decreased availability of labourers willing to work on the coffee estates and the second one is the poor quality of the work force which iswilling to work. Besides, the labour wages have also gone up sharply during the last five years which

drastically increased the cost of cultivation of coffee especially that of Arabica variety which is highly labour intensive. Many growers have started replacing Arabica coffee with Robusta coffee, which requires less labour, to tide over the labour constraints. The Committee notes that the Coffee Board has adopted two-pronged approach to address these two issues of availability of labourers: 1) A scheme of mechanization of farm operations has been introduced in the financial year 2010-11. The scheme is intended to reduce the requirement of labour at one hand and tackle the problem of skill deficiton the other as various operations are being performed using machines.2) Conducting Skill Building Workshops for the workers working in Coffee Estates. The Coffee Board proposes to intensify this activity under a newly proposed scheme viz., "Strengthening of Transfer of Technology and Capacity Building" in the XII Plan. The Committee finds that the use of machinery in carrying out farm operations is in its infant stage in India and there is a need to give major impetus during the XII Plan. The Committee has noted in detail the efforts being made by the Coffee Board in earlier parts of this Report and appreciates the spirit of the Board. Never the less, the Committee is of the considered view that we still have to go a long way before being satisfied. It is learnt that no substantial savings of labour has been found from the existing machines that have been released in coffee sector. More machines will have to be developed and primarily the focus should be on harvesting machines.(Rajya Shaba Report-102, August 2012)

Thus, institutional supports are effective and suitable to the labourers and Growers. But, the labourer's contribution and willingness towards industrial work in urban areas.

Average Daily Number of Persons employed in Coffee Plantations of Tamilnadu

S.No	District	2005-06	2006-07	2007-08	2008-09	2009-2010
1	Pulneys	18159	18159	18159	18159	18159
	Nilgiris	3281	3281	3281	3281	3281
	Salem	3471	3941	3941	3941	3941
	Coimbatore	2049	2049	2049	2049	2049
	Total	**26960**	**27430**	**27430**	**27430**	**27430**

Source-Coffee Board-2011

The structural changes have emerged to the plantation labourers in various categories of each estate, such as permanent, contract, regular (casual) labourers, and seasonal labourers. During 1995 the coffee Plantations faced a crisis on price and sales performance (drastic fluctuating trend). Subsequently, most of the coffee estates were closed. A large number of labourers lost their work. In the mean time the trade union of Plantation was unable to protect the labourers and amicable solution with owners, particularly Coffee Estates. Therefore the coffee plantation is separated from other major Plantations (Tea) as a large number of the coffee estates are occupied by small growers.

The Trade Union is also unable to take proper decision as well as collective bargaining for wage agreement and settlement of disputes due to the intervention of political issues. A large size companies adopted the approach of multinational companies. It means, the nature of work is specified by the owners. There is no provision of choice for labourers. The practice of labour-lay out was adopted. Most preferably, they had tried to hire minimum number of workers based on their willingness and contractual basis. Here, the structure of existing labour practice has changed in the way of collective forming approach(some times small growers also formed as a group of labour with performing work to one growers and getting wage during peak seasons. Besides, the features of Plantation Labour Act and its provisions

are diversified. The present situation of the labour practices in the sector is not uniform. The average daily wage is Rs 350 to 450 for men and Rs 200 to 300 for men per day.

Conclusion:

The labour practice of Coffee Plantation is the abolition of contractual work in the plantation as prescribed by the Act 1951. But, it has practiced in the way of indirect method. The labourer could do more work on the basis of additional quantity produced. They are engaged only when there is work based on which additional remuneration is paid. There is no time limit for regularize to the labourers. Ultimately, the owners who try to engage the cheap labour practice in their estates instead of actual wage they got. Most of the Southern part of large size Coffee Estate owners engages contractual cheap wage practice.But, small Grower's practice is differentiating from large size Growers.

Sometimes, small growers of coffee plantation who preferred contractual work to the labourers. Once the task has completed by the labourers (based on the season like pruning, beans picking, cutting, cleaning of bushes) they pay for them. This much of wages are not negotiable by both labourers and Growers. In case, large size estate owners, they arranged labourers from Northern States to complete their work for seasonal basis. The wage and work environment is not affecting the labourers who belong to outsiders.But, the structure has changed from the actual provisions by the Plantation Labour Act, like Health check up by women labourers, Plantation Inspector Visit to the field etc. By and large, according to the work produced by the labourer they can get wage from the Coffee Growers. Besides, most of the Growers who are willing to Fruit and Timber type of Tree Planted in their Estates. In this respect, they are practicing for labour engaged by the way of contractual basis. Economic contribution is less due to migration of Growers and Labourers. From this situation, some of the Growers are willing sale of land to the industrialist from plains in order to construct the resort, club and Hotel. Therefore, it leads to deforestation and further migration of small growers and labourers. If small growers have retain this sector, labour movement also sustained in Coffee Plantation. Otherwise it leads to increasing of tree cutting in existing land and which also leads to environmental degradation in the forthcoming year.

References:

1. Nagaraj.K&Vedavalli.L,ContractualAgrements in the Tea Plantations of Tamilnadu. . N L I Research studies series No: 054/2004,V V .Giri National L;abour Institute-Noida,2004
2. Occupational Wage Survey (Sixth Round 2006), Report on Plantation Industries, Labour Bureau, Ministry of Labour" – www.labour.nic.in / labour beureau/utm
3. Sharat K. Bhowmic et' al Tea Plantation Labour in India . Seventh Digest of Indian Labour Research (1993-97), LabourBureau, Ministry of Labour, Government of India, Chandigarh/Shimla, p.92-93
4. Palanithurai, "Indian Tea Knocked out of the cup", Global & Local–A bi-monthly newsletter that generates discussion on globalization and decentralization, Rajiv Gandhi Chair & The Ford Foundation, Issue No.5, July-August 2006.
5. Damu, T., Director of KannanDevan Hills Plantation Co.Pvt. Ltd., Wage Hike Threatens tea Industry, The New Indian Express, P.14, January 23, 2006
6. Indian Express, "Wage hike threatens Tea Industry", Business Express, January 23, 2006, p.14
7. SharatK.Bhowmik, Tea Plantation Labour in India, Friedrich Ebert Stiftung(India office)D-9, South Extension, New Delhi, 1995, 92-93
8. KingshukSarkar, Labour and HRD in Indian Tea Industry: Will they come together, CJMR, Mumbai,January 2007

9. Sridhar V, State Coffee growers in deep crisis as price crash, The Hindu,Nov-4-2008.
10. Tea Board to form Self –Help Groups of Small Growers-Press Trust of India.New Delhi. Feb-13,2008.
11. PramodGiri,Hill Unrest to cripple Tea Industry: Govt, Hidustan Times Live Kolkatta, March 18,2009.
12. Coffee Board, " Pulney Zone – Self Contained Note", Batlagundu, Senior Liasion officer,2006.
13. Report of "Committee on legislation Plantation Sector ",Sep 2007,Ministry of Commerce and Industry,Delhi
14. http://laborrights.org/links
15. www.actionaid.org/ fighting poverty together

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Analyze the pattern and determinants of agricultural development in Gujarat

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Abstract

Purpose: The purpose of this paper is to analyze the pattern and determinants of agricultural development in Gujarat state.

Design/ Methodology/ Approach: The present study is a descriptive and analytical study.

Research limitations/ implications: This study has analyzed the pattern and various determinants of agricultural development in Gujarat state in the continuously falling contribution of agricultural sector with increasing role of government and commercial banks in the state of Gujarat.

Originality/ Value: The paper has explored a positive relationship between increasing role of government and banking sector for higher development in agricultural sector in the state of Gujarat and future research directions are highlighted.

Keywords: Pattern of Agriculture, Agricultural Finance, role of banking sector, Determinants of agricultural development.

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Analyze the pattern and determinants of agricultural development in Gujarat

1. Introduction:

India has always been an agricultural country. According to the 2001 census, 73.3 per cent rural labour force is engaged in Agricultural activities. It is also noticed that average income from agriculture is very less in comparison to non-agriculture sector in India. Since Independence, the share of agriculture in GDP has decreased in comparison to the growth of the industrial sector and tertiary sector. However, agriculture still provides abundant of required goods and raw material to non-agriculture and Industrial sectors respectively. Moreover the agriculture and allied sector contribute around 18 per cent in the total exports directly, while in the indirect share of agriculture is much higher in total exports of the country.

1.1 The Agriculture sector in Indian Economy:-

The prospective of Indian economy is also depends upon agriculture development and growth, reason being majority of Indian population is still dependent on agricultural activities directly or indirectly. In India agricultural growth depends on agricultural productivity and agricultural productivity depends on the adoption of new farm practices and techniques such as chemical fertilizers, high yielding variety seeds, pesticides, mechanization and assured irrigation facilities. The adoption of these practices largely based on the availability of adequate amount of credit, credit which the availability of adequate amount of credit, credit which plays the vital role for accelerating agriculture growth in return.

Financial support and means are as essential as technological advancement. Mechanization and technological know-how can be better utilized only when farmers have better access to institutional credit. However, farmers normally come up with very little capital of their own, therefore they completely depends on external financial source. There is huge demand for credit because:

- To enhance the quality of land.
- To increase the size of land.
- To make the use of various farm inputs and techniques such as HYV seeds, fertilizers, pesticide, irrigation facilities etc.

Since the first five year plan till Industrial revolution, the majority of population in the country use to get their livelihood from primary and allied sector in the country. Technological advancement and gradual increasing availability of credit has brought noticeable development of agricultural sector in the country.

Agriculture sector will continue to remain growth engine of India. Despite of its tremendous contribution and performance particularly during Green Revolution (1965 - 2000), Indian agriculture sector is currently not as competitive, remunerative, productive and sustainable as desired and expected. After economic reforms (1990 - 91) and establishment of WTO (1995), the Indian agriculture sector fails to compete and sustain. Indian agricultural sector has marked with very volatile and low growth rate. The real GDP growth in the agriculture sector

during Tenth Five Years plan has marked only two per cent per annum over four per cent targeted growth rate in the planning period.

1.2 Role of Agricultural Sector in India:

Mahatma Gandhi has said seven decades ago, that is even true in today's scenario is that "Agriculture is the backbone of the Indian Economy." During first Five year plan (1950-51 to 1955-56) agriculture is the only means of living for more than two third of the entire population in India. As per the economic date of fiscal year 2008-09 agriculture and allied sector contribute about 18 per cent to India's total GDP. Agriculture sector plays a significant role in growth and development of the socio-economic sector in India especially after the 1960s food crisis, since after then India has put in a lot of effort to be self-reliant and self-sufficient in terms of food production. The contribution of Agricultural sector is quit visible in the total growth of the country. India is a leading producer of milk, coconuts, tea, turmeric, ginger, black pepper and cashew nuts. Moreover, India also has world's largest cattle population 193 million. India is the second largest producer of rice, sugar, wheat, silk, cotton, fresh water fish and peanuts. In addition to this India is the third largest producer of tobacco. India is accounting for 10 per cent of fruit supply of total world's fruit production. India is also a leading producer of mango and bananas.

Development of other sectors like Industrial and Tertiary sector have proved to be insufficient to absorb additional work force in India, therefore they are forced to fall back upon agriculture, therefore more than 50 per cent of total population still employed in this sector. According to the 2001 population census of India about 58.4 per cent of total rural workers out of which 31.7 per cent were owning the land and cultivating and 26.7 per cent were only agricultural labourers or wage earners. Ministry of Agriculture, Government of India, 2002 also has shown that about 78 per cent of operational land holding in country were hold and manage by marginal and small farmers who are having less than two hectares of land. About thirteen per cent land holding was carried out by farmer who got 2 to 4 hectare size of land and only 7.1 per cent got four to ten hectares of land.

1.2.1 State-wise Growth and Growth of Agricultural SDP; Comparison between India and Gujarat

Before Economic reforms in India, during 1983-84 to 1993-94(at 1980 base price) the average growth rate of agricultural GSDP was around 3.05 per cent while the aggregate GSDP was 5.32 during the same period. During 1993-94 to 1998-99 the agricultural GSDP has decreased to 2.65 per cent while the average GSDP of India has increased to 6.18 per cent. There is the further decline in the agricultural GSDP to 1.61 per cent during 1998-99 to 2004-05, while the average GSDP has increased to 5.36 per cent during the same period (Table 1.1).

It is worth noticing that the agricultural GSDP of Gujarat state during 1983-84 to 1993-94 was accounted only 0.84 per cent, while the total GSDP of Gujarat state was 5.0 per cent. During 1993-94 to 1998-99 the agricultural GSDP rose to 9.27 per cent, while the total GSDP was accounted as 8.85 per cent during the same period. However, during 1998-99 to 2004-05 agricultural GSDP has declined to 4.27 per cent from 9.27 per cent in the year 193-94 to 1998-99, during the same period the total GSDP of the state also has decline from 5.6 per cent to 6.71 per cent.(table 1.1)

Table: 1.1
Statewise SDP Growth & Growth of Agriculture SDP (in percent per annum)

State	1983 - 84 To 1993 - 94 (at 1980 prices)		1993 -94 To 1998 - 99 (at 1993 - 94 prices)		1998 - 99 To 2004 - 05 (at 1993 - 94 prices)	
	Agricultural GSDP	GSDP	Agricultural GSDP	GSDP	Agricultural GSDP	GSDP
Andhara Pradesh	3.05	4.58	1.41	5.12	2.05	6.17
Assam	2.12	3.51	0.62	2	1.51	4.97
Bihar	-0.45	2.69	1.2	3.76	1.8	4.17
Gujarat	0.84	5	9.27	8.85	4.27	6.28
Haryana	4.86	6.18	1.04	5.6	2.89	6.71
Himachal Pradesh	3.08	5.89	1.72	7.06	5.43	6.24
Karnataka	3.54	5.86	2.52	7.94	-3.88	5.48
Kerala	4.4	5.33	1.36	4.82	-4.23	6.67
Madhya Pradesh	2.82	5.21	2.52	5.57	0.59	2.71
Maharashtra	5.39	7.42	1.92	6	-1.08	5.4
Orrisa	-0.57	3.39	0.65	3.89	0.8	5.37
Punjab	4.62	5.13	1.33	4.73	2.19	3.9
Rajathan	3.93	6.19	8.64	4.73	1.61	4.52
Tamil Nadu	4.43	7.45	1.36	6.37	-4.43	3.69
Uttar Pradesh	2.8	4.66	1.9	4.73	2.28	3.95
West Bangal	4.45	4.73	4.72	7.25	2.51	7.01
India*	3.05	5.32	2.65	6.18	1.61	5.36
CV for States	58.72	25.43	5.67	4.13	11.17	11.64

* Aggregate GSDP derived as summation of all State's GSDP
Note: The periodization for this study has been done by a simple inspection of the peaks and troughs in the data series.
Source: EPWRF (2003): Domestic Product of States of India: 1960-61 To 2000-01, June and www.mospi.nic.in

2. REVIEW OF LITRATURE:

Nerella (2015) has shown that Agriculture development is affected by various factors like credit, irrigation infrastructure and market. Out of all variables credit is key input for long term sustainable agriculture development. This study also shows that KCC scheme has also played significant role in the form of operation and income of farmers in agriculture sector. The availability of crop loan has helped in realizing higher value per hectare gross return for the KCC beneficiaries for the crops taken under study. This study also high lights that the process of opening up of banks accounts should be simplified. This can be achieved by organizing village campaigns for issuance of KCCs in agriculture sector in India. The commercial banks have issued 629.94 lakhs KCCs as of 2012-13 in India.

Godara et al (2014) have shown in their study that, there is increasing rate of share of institutional credit which have registered remarkable growth form 7.3 per cent in 1951 to 61.1 per cent in 2002 and there is a noticeable decrease in the share of non-institutional credit form 92.7 per cent to 30.6 per cent during the same period respectively. However, the field result of this research paper shows that all farmers assume agriculture credit is inadequate and proportion of small and marginal farmers who access the credit by formal sources were lower than those in medium and large farmers. About 83 per cent of small farmers, 78 per cent of medium farmers and 87 per cent of large farmers are still based on informal credit channels in agriculture sector in India.

Ahangar et al. (2013) opines that the institutional is very important for agricultural development in India. This research paper primarily analyses the growth of Schedule Commercial Banks in providing agricultural credit in India. This study also shows the contribution of commercial banks is much-much higher in case of commercial banks while it is the lowest in case of Co-operative banks. Similarly the total number of account holders have increased in case of SCBs from 5,841 to 30,538 and the amount of finance also have increased from 14,516 to 2,71,670 in referred period of time. This study also high-lights that there is the considerable increase in amount outstanding in case of commercial banks from 59310 to 583343 crores during the same referred period.

Varinder and surjit (2014) have shown in their study that commercial banks have played very significant role in providing finance to agriculture sector in India. With the aim of facilitating timely and adequate loan to agriculture sector, the SCBs have targeted the agriculture financing as part of the priority sector lending programme introduced after nationalization of banks in 1969. Since then, banks have become successively an important source of agriculture credit in India. This study also shows that in the first half of 2000s, the share and role of SCBs have increased considerably, especially with the newer credit delivery system in the form of KCC.

Kumar et al. (2010) have studied the large number of formal institutions like Co-operative, Regional Rural Bank (RRBs), Schedule Commercial Banks (SCBs), Non-Banking Financial Institution (NBFIs)and self-help Groups (SHGs), etc. are important to meet the short term and long term credit needs of farmers. This study has considered the share of agricultural credit in agricultural GDP (AgGDP) and over all GDP and the credit per unit of GCA was examined to assess the overall performance of institutional agricultural credit flow. This paper also examine the share of different institutional agencies in the agricultural credit flow where it has been observed that the share of schedule commercial banks have increased from 1.9 per cent in TE 1972-73 to 73 per cent in TE 2008-09.

Bhatacharya (2006) has examined that, the government and RBI have vigorously instituted various initiatives for financial inclusion. This study shows that high light these measures, which probably have an effect in urban areas; rural areas might need some extra initiatives. The crux of the dilemma is that the characteristics of intermediating finances to rural households and small farmers—cash constraints, asymmetric information and high transaction costs are likely to keep the impact of traditional channels and administrative mandates fairly limited. Focusing commercial entities to combine these two disparate businesses is likely to decrease overall efficiency and it is something the system can put some afford in the competitive environment. The kind of access involve, however, will probably need viability gap funding like; a subsidy or transfer mechanism to attract investment in agriculture sector, especially in initial years.

Kalkadi (2012) has shown in his comprehensive study that, India has a very huge number of tenant farmers including share croppers and oral lessees whose legal relationship with the land owners and the piece of land they cultivate has not been recognized. In the absence of an official agreement with land owner, the State Government virtually has no record of tenancy farming. The latest National Sample Survey for the year 2003 estimated that the area under informal tenancy in the country varies between 15 % and 35 % of the total farm area. And 36 % of the total rural households leasing land are landless labourers and 47.5 % have land below 0.5 hectare. This study also shows that it is absolute unfortunate that such a huge numbers of tenant farmers do not exist in revenue records, consequent upon which they are exposed to several problems including the most severe being tenant farmers inability to access institutional credit and insurance cover. This study also conceptualize absence of transparency in the agreement with landlords makes them pay very high and exploitative payouts in cash and kind.

Simonot andBrewin (1999) have found that, Credit policy must be compared against goals. Provision of loans primarily in case of land may arguably help to maximize output (increased efficiency through rationalization) and could possibly provide its input towards higher growth rates through larger scale and quick adoption of production-increasing technological know-how. Thus this can be concluded that facilitating this may be seen as a reduction of income inequality (opportunity inequality). These in turn, to allow a period for adjustment on an industry scale.

Mohan (2004) has shown in his study that, the banking system in India is, at present, emphasizing more for providing finance for the traditional crops like cereals. However, therefore it needs to reorient itself to meet the changing need of commercializing agriculture sector. Credit demand would increase because of purchased-input intensive and dis-similar (heterogeneous) production cycles of the new areas of agriculture. This would also call for designing new and innovative schemes and products which identify the differing nature of agro-businesses and supply chains for different agricultural goods. Latest type of credit assessment and risk managing systems may also have to be put in place, besides upgrading skills and changing attitude and mind-sets. The traditional rural credit system has been changed to some extend due to the revolution in information technology.

3. METHODOLOGY:

The data collected on different economic variables to analyze them with the help of simple linear regression technique.

A linear model of the equation (1) is specified below in the study;

$$Y = \beta 1 + \beta 2X1 + \beta 2X2 + \beta 2X3 + \beta 2X4 + \beta 2X5 + u$$

Where,

Y = Agricultural GSDP (Gross State Domestic Product)

X1 = Agricultural Credit by Commercial Banks in Gujarat

X2 = Gross Irrigated Area

X3 = Fertilizers (N+P+K)

X4 = Cropping Intensity

X5 = Rain fall

Regression Statistics	
Multiple R	0.992353749
R Square	0.984765964
Adjusted R Square	0.981380622
Standard Error	417116.6758
Observations	23

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	-19194362.3	3506590.642	-5.473796137	3.3691E-05
X Variable 1	4399.686154	352.7402968	12.47287649	2.70202E-10
X Variable 2	-636.106481	351.5814381	-1.809272084	0.087141296
X Variable 3	26729.39148	7146.073515	3.740430522	0.001497533
X Variable 4	176078.791	34744.8294	5.067769624	8.0194E-05

ANOVA					
	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	2.02444E+14	5.06111E+13	290.8911835	4.35852E-16
Residual	18	3.13175E+12	1.73986E+11		
Total	22	2.05576E+14			

4. RECOMMENDATION/ FINDING:-

- The base of Agriculture credit should be increased to majority of the population in rural Gujarat; especially the small and marginal farmers should be the main focus of Commercial Banks.
- Credit is an indirect input to the for agriculture sector; therefore it should be increase in harmony with increase in several other facilities by the State government, like technological advancement, irrigation and power, chemical fertilizers availability, availability of seeds and many more to ensure the demand for credit in the first hand and the availability of it subsequently phase.
- Commercial Bank should ensure the continuous guidance, assistance and supervision to borrowers about the optimum use of credit even after issuing the loan.

- Commercial Banks should appoint a team of Scientist and agriculturist experts to provide the flawless guidance to the borrower to make the loan more productive.

5. LIMITATIONS OF THE STUDY:

- The study recognizes its limitation as it does cover only the study of Gujarat.

6. FUTURE SCOPE OF THE STUDY:

- The various factors identified for the study can be used as input for future empirical studies and institute based studies.

REFERENCES:

Ahangar, G., Ganie, A. and Padder, M. (2013). A study on institutional credit to agriculture sector in India, Department of Economics, Bharathiar University, Coimbatore, Vol 1

Jain, V. and Singh, S. (2014). Agricultural Finance in India: A Study of Small, Marginal, Dalit and Tribal farmers, Institute of Department Studies, Jaipur (Rajasthan) pp – 4

Kumar, A.,Singh, K.M and Sinha, S. (2010). Institutional credit to Agriculture sector in India, National centre for Agricultural Economics and Policy research, Vol 23, pp 253-264

Mehta, N (2012). Performance of crop sector in Gujarat during high growth period, Sardar Patel Institute of Economics and Social Research, Ahmedabad

Swain,M.,Kalamkar,S. and Kapadia, K.(2012) State of Gujarat Agriculture, AERC Report 146.

Kumar, M., Narayanamoorthy, A., Singh, O,.Sivamohan,M., Sharma,M. and Bassi,N.(2010) Gujarat Agricultural Growth Story: Exploring some Myths, Institute For Resource Analysis and Policy, Hyderabad.

Pattnaik, I., and Shah, A (2013) Gujarat's Agricultural Growth Model:How Sustainable it is? International Journal of Agriculture and Food Science Technology, Vol 4

Narala, A. and Zala, Y(2010) Technical Efficiency of Rice Farms under Irrigation Conditions in Central Gujarat, Agricultural Economics Research Review. Vol 23.

Pande, V., Kurothe, R., Singh, H. and Tiwari, S.(2011) Incentives for Soil and Water Conservation on farm in Ravines of Gujarat: Policy Implications for Future Adoption, Agricultural Economics Research Review Vol 24

Shah, J. and Dave D(2010) Regional Trends and Pattern in Milk Production and Drivers for Future Growth in Gujarat State, Agricultural Economics Research Review Vol 23

Gulati, A., Shah, T. and Shredhar, G(2009) Agriculture Performance in Gujarat since 2000: Can it be DIVADANDI (Lighthouse) For Other States., IWMI/IFPRI.

Tewari, D and Khanna, S(2005) Building and Energizing Water Institutions: A Case Study of Irrigation Management Transfer in Gujarat, J Environmental System, Vol. 31(3)

Shaikh, A and Zala Y(2011) Production Performance and Economic Appraisal of Broiler Farms in Anand District of Gujarat, Agricultural Economics Research Review Vol 24.

Saraswat, V., Sharma, S., Patel, K. and Singh (2014) Economics of Brinjal Production in South Gujarat, Economics affairs: 59(2)

Dholakia, R.(2003) Exports of Agri – Products from Gujarat: Problems and Prospects, Vikalpa Vol 28

Panwar, J and Kumar, D(2008) Managing Ground Water Resources for Sustainable Growth, South Asia Journal of Management, Vol 15

Singh, S., Kaur, M. and Kingra, H (2009) Inadequacies of Institutional Agricultural Credit System in Punjab State,Agricultural Economics Research Review Vol 22

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Ayurveda - The science of life

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Abstract:

Sprouted in the pristine land of India some 5000 years ago, Ayurveda, the science of life and longevity, is the oldest healthcare system in the world and it combines the profound thoughts of medicine and philosophy. Since then Ayurveda has stood for the wholesome physical, mental and spiritual growth of humanity around the world. Today, it's a unique, indispensable branch of medicine, a complete naturalistic system.

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Ayurveda - The science of life

Introduction

Ayurveda (**आयुर्वेद**, the 'science of life') is a system of traditional medicine native to the Indian Subcontinent and practiced in other parts of the world as a form of alternative medicine.In Sanskrit, the word Ayurveda consists of the words Äayus, meaning ‚life', and veda, meaning ‚related to knowledge' or 'science'.Evolving throughout its history.
Ayurveda developed and evolved into what it is today from several ancient treatises, most notably Atharva Veda which dates back to five thousand years. The ancient Vedic literature by sages has clearly laid out instructions to maintain health as well as fighting illness through therapies, massages, herbal medicines, diet control and exercise.

Ayurveda, regarded as a Holistic manual of Life & Age, describes a lifestyle that's in harmony with nature. The Ayurvedic description of health is :

„Samadosha, Samadhatu Samagnischa, malkriyah,

(समदोष: समधातु समाग्निश्चा मलक्रियः)

Prasannatmendriyamanah, Swastha ityabhidhiyate

(प्रसन्नात्मेंद्रियामन: स्वस्थ इत्याभिधियते)"

i.e Only he, whose doshas (Vata, Pitta, Kapha) dhatus (physical components – Rasa, Rakta, Mansa, Meda, Asthi, Majja & Shukra i.e. Plasma, Blood, Flesh, Fats, Bones, Bone marrows & Semen respectively) & agni (digestive fire) is balanced, appetite is good, all tissues of the body and all natural urges are functioning properly, and whose mind, body and spirit (self) are cheerful or full of bliss, is a perfectly healthy person. Ayurveda considers the individual as whole and seeks to re-establish harmony between all the constituents of the body and a perfect balance of the tripod – Mind, Body and Spirit. Basically Ayurveda is Health promotive – preventive – curative and nutritive – all self contained.

The two principle objectives of Ayurveda are :

- **Swasthasya swasthya rakshanam (स्वस्थस्य स्वास्थ्यरक्षणं)' – To prolong life and promote perfect health (add years to life and life to years)**
- **Aturasya vikar prashamanamcha (अतुरस्य विकार प्रशमनाम्चा)' – To completely eradicate the disease and dysfunction of the body.**

Ayurvedic approach to Life-style:
Health is greatly influenced by Life-Style (Swastha-vritta). According to Ayurveda, Life-style (the rules and guidelines) is divided into three parts:

1. Dincharya ~ दिनचर्या (Diet and regimen for the daytime)

2. Ratricharya ~ रात्रिचर्या (Diet and regimen for the night)

3. Ritucharya ~ ऋतुचर्या (Seasonal Diet and regimen) and Sandhikal (diet instructions for the joint period of two seasons)

One more thing that is very helpful for the knowledge of proper life-style ,Samsarjan karm (संसर्जन करम)' means specific diet program after illness or after Panchkarma Treatments. For perfect health, long disease free body status, one must follow these instructions.

One way to describe the Lifestyle is in terms of the doshas, Vata, the air element; Pitta, the fire element; and Kapha, the water element. Vata is dominant from 2 to 6 in the morning and afternoon. Kapha is dominant from 6 to 10 in the morning and evening, and Pitta is dominant during mid day and midnight. (10 to 2) Keep in touch with these energies during the day and move with them, not against them.

Different Health Issues

"Health" – the word itself has a deep meaning which is not limited to particular thing or system. Generally, we define health to be of two types; physical and mental health. Most commonly people think of their health to be ill health when some disease occur, but that's not the fact and the reality is something else.

Let's see what's said about Health in Ayurveda.

A person whose *dosha*, *dhatu*, *mala* and *agni* are all in **balance** that means they are all free of disorder any and whose *senses*, *mind* and *soul* are happy-joyful, can be said as healthy.

Now in this definition, *dosha*, *dhatu*, *mala* and *agni* mentioned in the first sentence indicate towards the physical health, whereas senses, mind and soul mentioned in the second line indicates sensual, mental and spiritual health. This way **Acharya Sushrut** by combining both sentences has successfully presented the qualities of "Total Health".

WHO (World Health Organisation) says

In this modern era **WHO** (World Health Organisation), after making changes so many times, it has been able to define 'Health' fully and completely. There is a surprising similarity in the following definition that's been developed by WHO with the one that was given by Acharya Sushrut thousands of years ago.

"Health is a state of complete physical, mental, social and spiritual well being, and not merely the absence of disease or infirmity."

In Ayurveda, importance is given to the "**Total Health**". Now you decide whether you are Healthy or Unhealthy!

I don't want to make this blog post lengthy. I will make separate post about other things mentioned in this post like *dosha*, *dhau*, *mala*, *agni* etc.

If we talk about current health issues, we can see Overweight and Obesity, Mental Health, Heart Diseases, Asthma, Diabetes, Headaches, Depression, Cancer, etc...

Overweight and Obesity - Being overweight or obese increases your chances of dying from hypertension, type 2 diabetes, coronary heart disease, stroke, gallbladder disease, osteoarthritis, sleep apnea, respiratory problems, dyslipidemia and endometrial, breast, prostate, and colon cancers.

Mental Health - Dementia is not part of aging. Dementia can be caused by disease, reactions to medications, vision and hearing problems, infections, nutritional imbalances, diabetes, and renal failure. There are many forms of dementia (including Alzheimer's Disease) and some can be temporary. With accurate diagnosis comes management and help. The most common late-in-life mental health condition is depression. If left untreated, depression in the elderly can lead to suicide. Here's a surprising fact: The rate of suicide is higher for elderly white men than for any other age group, including adolescents.

Heart disease. Researchers have long suspected that the stressed-out, type A personality has a higher risk of high blood pressure and heart problems. We don't

know why, exactly. Stress can directly increase heart rate and blood flow, and causes the release of cholesterol and triglycerides into the blood stream. It's also possible that stress is related to other problems -- an increased likelihood of smoking or obesity -- that indirectly increase the heart risks.

Doctors do know that sudden emotional stress can be a trigger for serious cardiac problems, including heart attacks. People who have chronic heart problems need to avoid acute stress -- and learn how to successfully manage life's unavoidable stresses -- as much as they can.

Asthma. Many studies have shown that stress can worsen asthma. Some evidence suggests that a parent's chronic stress might even increase the risk of developing asthma in their children. One study looked at how parental stress affected the asthma rates of young children who were also exposed to air pollution or whose mothers smoked during pregnancy. The kids with stressed out parents had a substantially higher risk of developing asthma.

Diabetes. Stress can worsen diabetes in two ways. First, it increases the likelihood of bad behaviors, such as unhealthy eating and excessive drinking. Second, stress seems to raise the glucose levels of people with type 2 diabetes directly.

Headaches. Stress is considered one of the most common triggers for headaches -- not just tension headaches, but migraines as well.

Depression and anxiety. It's probably no surprise that chronic stress is connected with higher rates of depression and anxiety. One survey of recent studies found that people who had stress related to their jobs -- like demanding work with few rewards -- had an 80% higher risk of developing depression within a few years than people with lower stress.

Cancer :- Cancer is a disease of the body's cells. Normally cells grow and multiply in a controlled way, however, if something causes a mistake to occur in the cells' genetic blueprints, this control can be lost. Cancer is the term used to describe collections of these cells, growing and potentially spreading within the body. As cancerous cells can arise from almost any type of tissue cell, cancer actually refers to about 100 different diseases.

Preventive actions

Now the best way and first step to deal with these health issues that we see is we take preventive actions.

In the area of disease prevention, Ayurveda teaches us that through a healthy lifestyle that is individually designed to be harmonious with our own unique nature (our

constitution), and the practices of meditation and yoga, a person can reach their potential physically, emotionally and spiritually. In this state, disease does not exist. It serves no purpose. For what is disease, really? It is our body communicating disharmony. Remove the disharmony and you remove the disease.

Cure medicines

Ayurvedic herbs, practices and recommendations, have been shown to be helpful in cure of current health issues.

According to Ayurvedic medicine, everyone is unique in terms of his or her individual balance between these three energy (or personality) types. Everyone has some vata, pitta and kapha to their personality, but usually one or two of the doshas are more dominant in a particular person — and this ultimately governs body type, appetite, energy levels, moods and tendencies. Each dosha has both physical and emotional characteristics, so Ayurvedic practitioners use the three doshas to describe common traits of someone's body type and personality.

By helping to balance the three doshas — not letting one type become overly dominant and another to become ignored — handling stress, following a healthy diet, dealing with change and maintaining relationships are all expected to be easier.
Two of the most important aspects of restoring balance in Ayurveda is tuning in to the natural rhythms of your body and also bringing your lifestyle into sync with nature and its cyclical patterns. This includes lining up your activity level, food choices, sleep and so on with the time of day, seasons and for women even their menstrual cycles. Ayurveda can help ease stress and restore a healthy **circadian rhythm** in this way, which benefits everything from your hormones to appetite.

In order to help rebalance your doshas and prescribe a certain diet, healing herbs and restful practices, an Ayurvedic practitioner will take your medical history, check your vital signs like your pulse and reflexes, examine your skin, look inside your mouth at your gums and tongue and speak to you about your sleep and relationships. All of these factors help the practitioner first determine your primary dosha, then figure out which aspects of the doshas might be out of balance — for example, if you're overworking, under-sleeping or not consuming enough nutrients.

Ayurveda, allopathy, homeopathy

There are various alternative therapies apart from allopathy modern science, and most of them are very ancient, for example ayurveda. Whether it's modern science or any of the alternative therapies, all of them have some pros and cons. But current situation is that people are hesitating to use the alternative therapies, and there are certain reason behind it.

GUARANTEED cure for disease, illness or pain!!!

Many people inquire for the cure of their disease, illness or pain using *alternative therapies* like sujok, acupressure, ayurveda, naturopathy etc… and then continue for the treatment using alternative therapies.

But some people ask about the **Guarantee**! for the cure of their disease, illness or pain.

Disease, illness or pain are minor things!
When you/we were born did God/Super Power/Universe or anyone else gave guarantee that your life span will be of certain seconds/minutes/hours/days/months/years?
NO… never, our life ultimately depends on our **physical and mental health** and our health depends on many aspects like, food we eat, climate etc…

When people go for certain operations/surgery of certain part/s of their body, where they give thousands to lakhs (millions) of rupees and sign up the disclaimer happily without any kind of guarantee from Doctors/Hospitals.

But when they come for the *alternative therapies* like sujok, acupressure, ayurveda, naturopathy etc… they expect miracles! and ask for Guarantee!!

Anyways, I hope the future time might change people's way of thinking…

References:-

1. https://www.keralatourism.org/ayurveda/
2. http://somatheeram.in/AYURVEDA
3. http://www.deinayurveda.net/wordpress/2009/12/ayurvedic-lifestyle-daily-routines/
4. http://maulikzalavadia.com/what-is-health-are-you-really-healthy
5. https://www.urmc.rochester.edu/senior-health/common-issues/top-ten.aspx
6. http://www.webmd.com/balance/stress-management/features/10-fixable-stress-related-health-problems#1
7. https://www.youthbeyondblue.com/understand-what's-going-on/physical-health-problems

8. http://www.ayurvedacollege.com/articles/drhalpern/Preventive_Medicine_Stress_Ayurveda

9. https://draxe.com/ayurvedic-medicine/

10. http://maulikzalavadia.com/guaranteed-cure-for-disease-illness-pain/

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Changes in Employment Structures- A Case of Gujarat

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Gujarat has undergone a process of transformation in terms of employment towards the non-farm sector and urbanisation. This is validated through the analysis of secondary data presented in the previous chapter.

This study seeks to explore rural transformation and trace the pattern of changes in agriculture impacting rural labour absorption. Though there is vast volume of literature on this subject, there is need to know if diversification is distress driven or growth induced process in Gujarat. This study seeks to explore all these dimensions through a case study of seven census towns in Gujarat. Visits to seven small towns in Gujarat in April 2016 reveal in some areas estimate of villagers is under stated, paucity of funds, absence of planning norms and lack of regulating the height of a building, have contributed to poor civic services and inadequate infrastructure. Sarpanch in some areas have managed to provide all the possible amenities in limited funds. In those small towns, the citizens are apprehensive that the urban bodies would not tackle problems but might neglect it, however this has its limitations and cannot substitute for efficient local government.

The field work for the study was conducted in April 2016. A four-stage stratified purposive sampling technique was adopted. Out of 26 districts which has 153 CTs with the help of purposive sampling we choose 7 districts and in that we choose one CT from each district to cover gap of the secondary analysis. Researcher has conducted a primary survey of 7 census towns i.e. Bhiloda (Aravalli), Kanodar (Banaskantha), Kakoshi (Patan), Becharaji (Mehsana), Ichhapore (Surat), Kabilpore (Navsari) and Chhiri (Valsad). These villages in 2001 were declared as census towns in 2011 and are in different agro- zones, to assess the changes happening in economic and social prospects. This criterion of selection was chosen as these census towns were villages in 2001 and had converted into a town in 2011.The changes in last decade will be interesting to compile. Each Census town was selected after consultation with a few knowledgeable persons.

In the study an attempt is made to assess the changes happening in economic and social spheres in the rural areas, that is also spurring urban growth. CTs chosen had varying agro climatic conditions, population, nature of agriculture, location, proximity to a district centre/national highway amongst other characteristics. These criteria aid in strengthening the rural urban linkages, and results increase in levels of non-farm employment in a region. The methodology comprised of interviews with sarpanch, talati and other prominent citizens, followed by Focused Group Discussion (FGD) with senior citizens of the village. Attempt was made to include people from varied occupations, social and economic classes in the FGD to get views from different strata of the village society. Thirdly information was also gathered from employers/employees belonging to non-farm enterprises in the village to aid the 360-degree analysis of prevailing conditions. Household level survey was also conducted to

ascertain the changes in employment, migration, consumption patterns and the social fabric of the village life as it became increasingly urban.

This chapter consists of following sections: section 5.1 describes the choices and description of study census towns 5.2, 5.3 and 5.4 explains the basic characteristics or infrastructure through census data, 2011. Table 5.5, and 5.6 describes the accounted number of workers in these census town from NSSO. One of the most important characteristics of census town is large scale in-migration from less developed areas. In table 5.7 researcher has discussed the reason and purpose of in-out migration and the area from migration. Other most important point here is the location of the town as it has most impact on non-farm employment and thereby urbanisation. As we know when agriculture gets saturated, labour needs to dispersed to non-farm activities to understand the dynamics of urban village table 5.8 we tried to understand the situation of the agriculture scenario and the main crops. There are various types of industries and kind of work in Table 5.10 we discussed that. In village level survey, table 5.11 we inquired about the amenities, presence of slum like conditions and development level of social infrastructure. In focused group discussion, we inquired about the lifestyle related changes and impact of availability of schools on education levels in table 5.12.

Rural Gujarat is not as homogenous as the villages vary in sizes, population is divided by castes and religions, there is skewed distribution of land and assets, and presence of gender divide. This leads to varying impacts and diversity in development outcomes often hidden under the garb of apparent growing rural prosperity. The characteristics of the selected census towns is given in Table 1. Table below highlights by way of a matrix the nature of activities that have contributed to the villages' identification as census towns.

Table 5.1: Selection of Town and its agro-climatic zone

Sr. No.	1	2	3	4	5	6	7
District Name	Banaskantha	Mehsana	Navsari	Patan	Sabarkantha	Surat	Valsad
Sub District Name	Palanpur	Becharaji	Navsari	Sidhpur	Bhiloda	Chorasi	Pardi
Census Town Name	Kanodar	Bechar	Kabilpor	Kakoshi	Bhiloda	Ichchhapor	Chhiri
Zone	North	North	South	North	South Saurashtra	South Gujarat	South Gujarat
Rainfall	625 and 875 mm		1500 mm and more		625-750 mm	1000-1500 mm	Same as six
Soil type	Sandy loamy to sandy soils.		deep black with fewpatches of coastal alluvial, laterite and medium black soil		shallow medium black calcareous (containing calcium) soil	deep black clayey soil	
Crops	Tobacco, wheat, jowar, minor millet, vegetables, oil seeds, spices and condiments.	Same as one	cotton, groundnut, sugarcane, chilies, wheat, gram, sesamum, sorghum, and Ragi.	Same as one	groundnut, cotton, pulses, wheat, bajra, jowar and sugarcane.	cotton, wheat, rice, gram, maize, groundnut, sesamum, castor and horticultural crops.	
Total Population	12389	12574	15699	9734	16074	12097	18829
Density (Census 2011)	1572	1434	6205	917	1167	3816	9096

Source: http://daonet.nic.in/farmer/new/dac/AgroClimaticZones.asp?SCod=04 and Census Survey, 2011

Bhiloda and Kabilpore has 30kms and 10kms of pukka roads adding to exiting knowledge through field visit we also came to know that Kanodar has 12 kms of pukka roads. Only Kabilpor and Chhiri has open and closed drainage system all others have closed drainage system. Almost in all CTs more than 70% of HHs have electricity. In fact, in Bhiloda, Kanodar and Chhiri more than 90% of HHs have electricity connection. Availability of buses

have led to migration of people from various other villages. The basic amenities provided have also led to increasing number of migrants from surrounding villages and also from other states who lack in these facilities.

Table 2: Status of basic amenities in the selected census towns

Town Name	Households	Pukka Road Length (in kms.)	Drainage System (Open-1/ Closed-2/ Both-3/ No-4)	Bus in area	Electricity-Domestic Connection (Numbers)	% of households who have electricity
Bhiloda	3464	30	2	Y	3464	100.0
Kanodar	2625	6	2	Y	2404	91.6
Becharaji	2709	4	2	Y	2377	87.7
Kabilpor	3486	10	3	Y	3103	89.0
Chhiri	4757	6	3	Y	4310	90.6
Ichchhapor	2870	3	2	Y	2100	73.2

Source: Census Survey, 2011

Water facility is one of the most important input for agricultural production and for household consumption. The facility of water availability has helped economy of Bhiloda and Kabilpore. As Kabilpor has food processing units which are pushed by the water in agriculture production.

Table 3: Sources of water facilities from various census towns

Census Town	TT: Tap water from treated source, TU: Tap water from un-treated source, CW: Covered well, UW: Un-covered well, HP: Hand pump, TW/B: Tube well /Borehole, RW: Rainwater and TK/P/L: Tank/Pond/Lake
Bhiloda	TT, TU, CW, UW, HP, TW/B
0Kanodar	TT, TW/B
Becharaji	TT, TW/B
Kabilpor	TT, TW/B
Chhiri	TT, CW, UW and HP
Ichchhapor	TK/P/L

Source: Census source, 2011

Availability of school facilities in selected census towns as the primary (govt and private) schools are available we talked about the number of availability.

Table 4: School Facilities in selected census towns

Census Town	Govt. Primary School (Numbers)	Private Primary School (Numbers)	Secondary School Status (Govt.-1 and Private-2)	Senior Secondary School Status (Govt.-1 and Private-2)
Bhiloda	8	3	1	1
Kanodar	4	1	1 and 2	1
Becharaji	4	3	1	1
Kabilpor	1	6	1 and 2	1
Chhiri	1	2		
Ichchhapor	2	3	2	2

Source: Census Source, 2011

The structure of urban population in the state of Gujarat is similar to that of the developed states in the country. Researcher has jotted down the number of census towns in various districts of Gujarat in the next figure researcher has shown the population in the census towns of Gujarat.

Hypothesis 2: Increase in literacy rate and education levels does not spur growth in employment.

In this table, researcher has highlighted some of the important features of selected Census Towns from census 2001 and 2011.

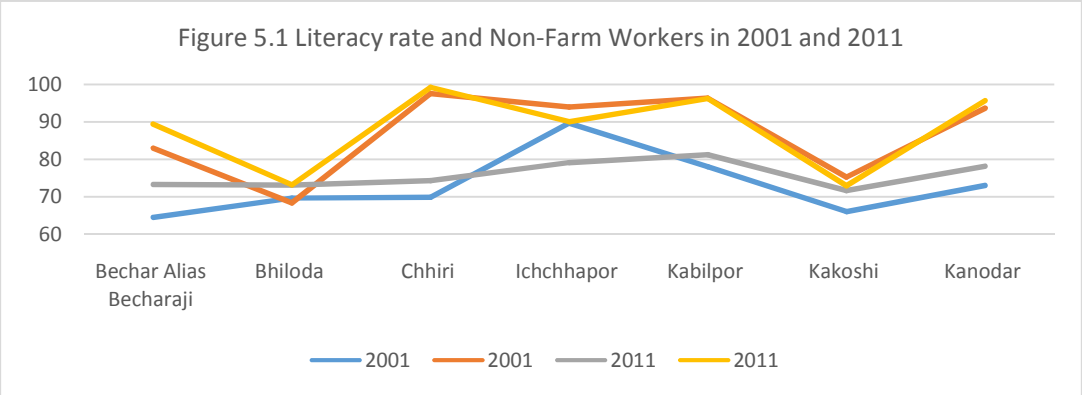


Table 5 Selected Census Towns and its salient features

Name of CT	Nearest class I city (kms)	HHs		Population		Growth Rate of Pop.	Literacy rate		Sex Ratio	
		2001	2011	2001	2011		2001	2011	2001	2011
Bechar Alias Becharaji	Mehsana (40)	2938	2709	10672	12574	17.8	64.5	73.2		845
Bhiloda	Gandhinagar (50)	2653	3464	14151	16074	13.6	69.6	73.1	986	936
Chhiri	Navsari (10)	1906	4757	10490	18829	79.5	69.9	74.3		609
Ichchhapor	Navsari (14)	2521	2870	8292	12097	45.9	89.6	79.1	786	733
Kabilpor	Navsari (2)	1508	3486	11691	15699	34.3	78	81.2		931
Kakoshi	Patan (12)	2098	1853	8456	9734	15.1	66	71.6		979
Kanodar	Palanpur (13)		2625	11130	12389	11.3	73	78.1	982	1020

Source: Census survey, 2001 and 2011

Correlation between literacy and non-farm worker is as high 0.642 which signifies both are highly correlated. Therefore, we reject null hypothesis and state that literacy rate and non-farm employment are positively correlated.

Table 5.5 is an amalgamation of salient feature of chosen CTs from district census handbook 2001 and 2011. Kanodar a Census town in Banaskantha, it is located 13 kms to class I city which is in Palanpur. It has 2625 HHs for 12389 population, it has grown by 11.3% since 2001. Sex ratio is highest (1020). It approves of the fact that there is little in migration and out migration to other countries. Chhiri, Valsad, 10 kms from Navsari has in migration from Bihar and UP at large scale. It is, thus, evident that arrival of workers from outside the state is an important factor responsible for the pace of urbanisation in the state. Population in this CT has grown by 80% and households have also increased by 150% providing construction as one of the non-farm employment for localities. Sex ratio is lowest in this CT and we observed hoarding of female infanticide and malnutrition in village panchayat when we visited. Literacy rate is highest in Kabilpor, 2 Kms from Navsari implying that proximity to class I town positively influences literacy rate.

In table 5.6 researcher has calculated % of total worker, non-workers, main and marginal workers; farm and non- farm workers for 2001 and 2011.

Calculation of workers:

% of Total workers=total workers divided by total population

% of Non-Worker= Non-workers divided by total population

% of Main Worker=Main Worker divided by total worker

% of Marginal Worker= Marginal Worker divided by total Worker

% of farm worker= (agricultural labours +cultivator) main and marginal worker =farm worker divided by total workers

% of Non-Farm Workers = (household workers + other workers) main and marginal worker =Non-farm worker divided by total workers.

Table 6 Total, Main, Marginal, Farm, Non-Farm and Non-Workers

Name of CT	Total Workers		Main Workers		Marginal Workers		Farm (Main + Marginal) Workers		Non-Farm (Main + Marginal) Workers		Non Workers	
	2001	2011	2001	2011	2001	2011	2001	2011	2001	2011	2001	2011
Bechar Alias Becharaji	35.0	36.4	83.3	95.4	16.6	4.56	17.0	10.6	82.9	89.3	64.9	63.5
Bhiloda	31.5	34.2	84.7	77.6	15.2	22.3	31.6	26.8	68.3	73.1	68.4	65.7
Chhiri	50.4	45.4	96.7	96.0	3.27	3.97	2.55	0.85	97.4	99.1	49.5	54.5
Ichchhapor	42.2	43.7	94.6	93.4	5.37	6.52	6.09	10.0	93.9	89.9	57.8	56.2
Kabilpor	37.1	35.1	95.8	92.1	4.15	7.85	3.71	3.77	96.2	96.2	62.8	64.8
Kakoshi	24.9	29.8	90.1	94.2	9.87	5.71	24.7	27.0	75.2	72.9	75.0	70.1
Kanodar	30.7	27.7	93.9	94.9	6.10	5.08	6.36	4.39	93.6	95.6	69.2	72.2

Source: Census Surveys, 2001 and 2011

Table 5.6, shows the fact that rural Gujarat and in particular chosen CTs has undergone a process of diversification towards non-farm employment. One of the conditions of town says that more than 75% of male population should be in non-farm employment. The data shows that out of total working population in Chhiri only 0.85% are farm workers, Kabilpor (3.77%), Kanodar (4.39%), Ichchhapor (10.01%) and Bechar alias Becharaji (10.67%). Total worker is most in Chhiri (45.5%) and least in Kanodar (27.8%): Similarly, main workers is most in Chhiri (97%) and least in Bhiloda (77.63%). It seems to be quite contradictory to survey as we came to know that almost all families have both partners working in government sector. Kakoshi has 27% workers involved in farm activities.

Table 5.6a Town wise distribution of non-farm work, services and industries providing employment						
	Kanodar	**Bechar Alias Becharaji**	**Bhiloda**	**Chhiri**	**Ichchhapor**	**Kabilpor**
Main Non-Farm Workers	Trading	Wholesale Trading	Trading	Construction	handicraft on sarees	Poha Mills
	Automobile – Auto Parts, Garage- 250,	Retail Trading	Animal husbandry	as labour in GIDC companies	In gems Hira Brouse	bakeries
	Weavers- 12		Real Estate		Construction	Rice mills
	Animal Husbandry		Money Laundering			
	Real Estate & Construction – 12		Hotel and Restaurant			
	Food Processing Unit – 1		Manufacturing			
	Biscuit & Chocolate		Construction			
Service Sector	Doctors- 82	Lawyers –5	Real Estate			real estate agents-12
	Engineers – 100	Beauticians –4	Teacher			Tailors-10
	Lawyers – 5	Tailors – 15				Laundry-15
	Tailors – 25	Laundry – 5				Parlour 25
	Hotels & Restaurants – 5					
	Chartered Accountants – 3					
	Financial Intermediation					
Main Industries				Bayer	Kribco	
				GIDC area	ONGC	
					Gems Hira Brouse	
					Diamond and Textile	
					RJD Textile	
Source: Primary Survey, 2016						

From survey, we came to know that though Chhiri, Valsad has 80 percent casual labour as main non-farm workers. Ichhapor has large scale of unemployment as their land acquired by government farm work is not an option. Corruption in employment leads to less chances in service sector.

Kakoshi, a Muslim dominated area, Sarpanch did not allow us to take interview. Here, researcher has compiled some observations. We could observe stark difference between poor and rich. As the slum condition was below living conditions but few miles far there was this huge gigantic mosque. The condition of the women seemed to be oppressed as all of them were wearing burqa even the young girls.

During researcher's visit to these six census towns we took an enterprise survey to understand labour absorption process and effect of urbanisation. Questions were asked to varying size of employer including garages, parlours, tailors, Poha mills and giant companies like Bayer. In the table below researcher has noted various type of employment in different CTs.

As there are assumptions that strong rural-urban linkages lead to development. So, the underlying premise is that a developed village would have strong rural-urban linkages and an under-developed one will have weaker ones. The non-farm activities were often traditional and also tied to the local conditions. For instance, it was observed that presence of strong rural urban linkages, proximity to industrial areas and location along a major national highway facilitated the growth in employment in automobile services and auto-parts units near Kanodar. A high traditional RNFE share is associated with low literacy and distress diversification (in case of Kanodar), while a high modern RNFE share is associated with high literacy and rural growth linkages from agriculture (in case of Bhiloda). Employment in the textile, gems and jewelry sector in Ichhapor near Surat were the main drivers for the village acquiring urban characteristics. Small scale food processing activity (e.g. Sweet (penda) making) in the temple town of Becharaji (Mehsana) and retail and service sector activities

catering to the tribal hinterland in Bhiloda (Aravalli) were the drivers for rise in the non-farm employment, a prominent criterion for identification of "urban" in India.

The above had a positive bearing on the per capita income of the communities. Furthermore, the basic infrastructural facilities like roads, connectivity with highway, existence of banks, educational facilities and other infrastructural facilities contributed significantly to the higher level of economic growth. Some of the common features of all the census towns were level of in-migration of workers in search of employment prospects, rather than out migration. The villages near industrial corridor had spread effect of increasing construction of flats for migrated people. So, local labour had an employment opportunity in construction apart from casual labour in industries. House rent from migrant residents is the main source of income for unemployed Ichchhapor (Surat) localities. In the towns belonging to the industrial districts in south Gujarat, e.g., Chhiri in Valsad which actually has 60,000 populations largely comprising of migrant industrial workers, against the census figure of 18829.

Economists like Paul Rosenstein Rodan, Ragnar Nurkse and Albert Hrischman advocates that good infrastructure facility ensures smooth flow of input and output, higher accessibility to knowledge, market and remunerative prices. As we know geographical location plays an important role in employment opportunities.

Reason of in-out migration

While there is no denying the possibility that migration to urban areas is one of the pathways through which rural households diversify their incomes, the empirical evidence on the strength of this pathway is limited. Internal migration in India are of four types rural-rural, rural-urban, urban-urban and urban-rural. It happens due to employment related reasons, studies, movement of parents/ earning member marriage and other reasons. The six census towns that we visited have positive net migration.

Hypothesis 3: Rural non-farm employment and the opportunity to diversify to secondary and tertiary sectors is not a prerequisite for enhanced urbanisation.

Growth of nonfarm employment is influenced on factors like proximity to highway, CT near DMIC corridor, industrial influenced area, periphery of large Urban agglomeration, irrigation and rain fed area, agricultural scenario and migrants.

Rural roads have positive correlation with employment generation and efficient mobility helps in reducing the ratio of underemployment and unpaid family helper due to efficient mobility. In farm economy, road plays a pivotal role in a shift of cropping pattern towards cash crops. Villages near highway, industrial corridor, Delhi-Mumbai Industrial corridor and periphery of urban agglomeration were observed to be developing rapidly. Transport and energy are considered as the most important factors for socio-economic development.

The prosperity of garage work in Muslim dominated Kanodar CT is due to its proximity to highway. Since generations Muslims were into automobiles due to their strong community ties and forward backward linkages, Kanodar is known as automobile hub.

Table: 5.7 Reason and Purpose of in-out Migration

Name of CT	Bechar Alias Becharaji	Bhiloda		Chhiri	Ichchhapor	Kanodar	Kabilpor
In Migration	Commuters for babari and on Full Moon night	Rajasthan and Sindhi	Nearby towns	Bihar and UP	Bihar and UP		surrounding villages
Purpose	Religious	Business	retail Shops	Industries (for all cadres)	Industries (for all cadres)		Non- Farm Jobs
Reason for the same		drought prone areas	drought prone areas	lack of opportunities			
Out Migration		Gandhinagar				Africa, America, Australia, Europe and Middle East	other countries
Purpose		Education or Job				in search of employment.	started business of motels after selling their land.
Reason for the same		some have high post jobs Govt and Education is better off.					

Source: Primary Survey, 2016

Table 8 Location of town

Name of the CT	Bechar Alias Becharaji	Bhiloda	Chhiri	Ichchhapor	Kabilpor	Kanodar
Near highway			yes		Yes	Yes
DMIC corridor			yes (Valsad-Umberagaon Industrial Area)	Yes (Surat- Navsari Industrial Area)	Yes (Surat- Navsari Industrial Area)	Yes
SEZ				Gujarat Hira Brouse		
Industrial district			Yes	yes	Yes	
Tribal area		Yes				
rain fed location			yes	Yes	yes	
periphery of large UA	Yes			Yes	yes	Yes
Food processing units					Yes	
Agriculturally prosperous/ Distress			not due to chemicals in the soil.	land has become unfertile	Rice, mangoes, chikoos, sugarcane	
Source: Primary Survey 2016						

Through this observation, we can say that researcher has reject null hypothesis and accept alternative hypothesis Rural non-farm employment and the opportunity to diversify to secondary and tertiary sectors is a prerequisite for enhanced urbanisation**.**

In some CTs we came to know that non-farm employment is due to distress rather than growth induced as the soil is contaminated and water is too polluted as chemical companies near Vapi are releasing contaminated water. In such areas, despite availability of land and water availability agriculture is not viable. Residents of Bechar alias becharaji CTs said that temple and activities related to that are the main force of development as people donate their large amount of money and pilgrims visit temple at least once in a month.

Table 9 Nature of agriculture and main crops

CT	Nature of agriculture	Problems in agriculture	Main Crops
Bechar Alias Becharaji		lack of water availability	Jowar, Bajra, Desi Cotton, Pulses and wheat
Bhiloda	Farmers are using new technology like greenhouse effect	Land fragmentation and labour charges are high	Vegetables, Chana, Cotton, Wheat, Castor and Cash crops
Chhiri		Soil Erosion and contaminated water	Paddy, Wheat and Mango
Ichchhapor		Land acquisition	Sugarcane, Paddy, Jowar and vegetables
Kabilpor	Farmers are trying new crops like pomegranate and Kesar		Sugarcane, Mango and Chikoo
Kanodar			Wheat, Castor, Cash Crops

Source: Primary Survey, 2016

Hypothesis 4: Presence of rural infrastructure (physical and social), and rural market centres, does not help in the growth of rural enterprises and employment in the same.

In this table 5.10, researcher has categorized census towns by types of work and industries in CT. Bhiloda has a huge market area for retail purpose and service centre for most government employees who need tailoring quite often. Workers in Chhiri and Ichhapor are majorly employed in GIDC Corridor. Kabilpor has food processing units as it is agriculturally prosperous area. Kanodar a Muslim dominated area is traditionally into automobiles with the help of strong community ties, proximity to highway aided this CT to be known as an automobile hub.

Table 10 Census Town, work type and industries in CT

Census Town	Kind of work	Industries
Bechar Alias Becharaji	Service hub	Temple; sweet making for temple
Bhiloda	Retail trading and service Hub	beauty parlour, tailor and clothes
Chhiri	GIDC corridor	Bayer, Via, chemical Micro ink, agro processing, engineering zone plastic zone and Pharmaceuticals
Ichchhapor	GIDC corridor	RJD textile, Gems and Jewelry Park
Kabilpor	Food processing Units, Service hub	Poha Mills, Sugarcane and bakery; for household chore
Kanodar	Service centre for automobiles, food processing	Garages, exports biscuits and chocolates,

Source: Primary Survey, 2016

Amenities and infrastructure in these census towns were discussed during focused group discussion and with the senior citizens during household interviews. We observed that rural

infrastructure and growth of rural enterprises are positively correlated. In Kanodar availability of good road conditions and transportation facility enterprise of a service centre for automobiles and food processing has flourished. Due to lack of facilities and infrastructure in Ichhapore and Chhiri rural enterprises have not flourished perhaps GIDC corridor has provided these census town dwellers rural employment in non-farm sector.
Researcher has to reject null hypothesis and accept alternate hypothesis that presence of rural infrastructure (physical and social), and rural market centres, does help in the growth of rural enterprises and employment in the same.

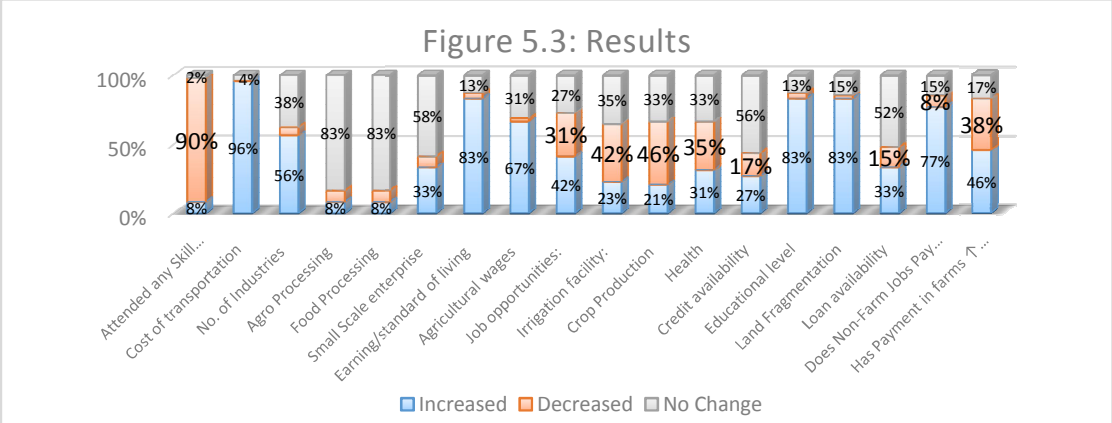
Table 11: State of amenities, presence of slum like conditions, social infrastructure developed

Facilities	Name of CT	**Bechar Alias Becharaji**	**Bhiloda**	**Chhiri**	**Ichchhapor**	**Kabilpor**	**Kanodar**
Bank	Bank	2	9	2	10	6	4
	Co-operative Bank	1		1	1	2	
Education	Govt Aganwadi	10	17		6	1	13
	Private Aganwadi	1		1			
	Primary School	4		1	6	2	
	Secondary School	1		1	1	1	1
	Colleges	1	6	4		1	
	ITI	1	1	1			
	Community Centre				1	1	2
Health Care Centre	Health Centre	2				1	
	Private Health Centre				3		2
Infrastructure	Road Facility	1	2	1	2	2	2
	Post Office	1			1	1	1
	Street Lights	1500		Yes	well maintained	Yes	Yes
	Slum						
	BPL families	480		300		280	
	Boring		41				
	Tap Facility		Yes	Yes		Yes	Yes
Water						Yes	600 Ft.
	Water Facility		150 Ft.				

Source: Primary Survey, 2016

Results from Focused Group Discussion:

After the focused group discussion, we asked some lifestyle related questions to the targeted group to know the changes in number of agro processing, small scale, food processing units in the village. If they have noticed any changes in standard of living, agricultural wages, job opportunities, irrigation facility, crop production and health. 83 per cent respondents feel that standard of living has increased to know the path of increase when asked 63 per cent of the



respondents said that payment in farm income has increased and 46 per cent of the respondents said that payment in farm has increased due to increase in payment in non-farm jobs. According to around 40 per cent respondents' irrigation facility and crop production has decreased.

Table 12 Views of the respondent in FGD and Household Surveys

Name	Preferring Gram panchayat over Nagar Palika	Is there any changes in terms of lifestyle	Is there any changes in type of the house	Changes in food/non-food consumption habits
Becharaji	Y	Y	Y	Y
Bhiloda	Y	Y	Y	Y
Chhiri	Y	Y	Y	Y
Ichchhapor	N	Y	Y	Y
Kabilpor	Y	Y	Y	Y
Kanodar	N	Y	Y	Y

Source: Primary Survey, 2016

Awareness in terms of giving education to girls has increased. In general, 83 percent of respondents have mentioned that educational level has increased.
One of the problems in that is the availability of trustworthy transport system to nearby town. Generally, those girls have to drop out from secondary school where it is far from village and whose family cannot afford it implying that the education is not reaching to the lowest

section of the society. Though malnutrition has reduced it is prevalent in some places where poverty is high.

Results from enterprise survey shows that 44 per cent of the enterprises have started up since 2010. 28% in the 2000-10 and same portion in 1991-00. 43 Per cent of the entrepreneurs didn't try/ require loans from the banks, 30% of the respondents said that they didn't get loans, 26% of the respondents said that they have received loans for banks. More than half of the respondents said that they get facilities of roads and electricity as this place has turned into a census town. 17 Per cent agreed that water facility is one of the advantages of census town. 11 Per cent respondents said that waste disposable system is also due to census town. Only 35% respondents said that tax saving is one of the incentives to have village instead of census towns. The awareness about the status of the town 50 Per cent of the respondents knew that this village is considered as a census town and about 35% preferred to have Nagar panchayat stating some of the instances of corruption esp. in Becharaji (Mehsana) and Kabilpor (Navsari).

Objective of the field work was also to find out the reasons to attract entrepreneurs to stay in the census town the major reasons were proximity to highway, availability of electricity, strong backward and forward linkages in a sense that market for consumption and availability of raw materials.

Table 13 Types and Sex Composition of Non-Farm Economic Activities

Activities Common to Men	Activities Common to Women	Activities Common to both Men and Women
Agro- Industrial Employment	Animal Husbandry	Govt Teacher
Automobile	Beautician	Laundry
Blacksmithing	Hand work on Sarees	Retail Shops
Carpentry	Pottery	Trading
Casual Employment (Construction)		
Charted Accountant		
Grinding Mill		
Money Laundering		
Real Estate		
Repair Work		
Saloon		
Security Work		
Tailoring		
Wood Carving		

Source: Primary Survey, 2016

5.2 Results from Household Survey:

Researcher has complied few observations from household survey. On an average, there are five family members in the household that we surveyed. 83 per cent live in a pukka house, 6 per cent live in kutcha and 11 per cent in semi-pucca. We had 83 per cent of the respondents Hindu and 17 percent Muslims mostly in Kanodar. In terms of social group 17 per cent were ST mostly from Bhiloda (Aravalli), 21 per cents OBC and more than half as Hindu.

Table: 14: Social groups and religion of respondents of household survey			
Social Group		Religion	
ST	17	Hindu	83
SC	4	Islam	17
OBC	21		
Others	58		
Source: Primary Survey, 2016			

In terms of nature of work, 27 per cent are into farming, three per cent are into agricultural labour, 42 per cent are involved as self-employed non-farm worker, 14 per cent are casual labour and 13 per cent are regular employee and others. In Bhiloda Non-Farm is majorly through pull factor but due to scarcity of water it had accelerated more. In all the census towns, non-farm is preferred as it is less risky, it is not seasonal and less labourious.

To know the trickle-down effect of the rural schemes we asked about their BPL and MNREGA cards. They carry 88 per cent of the respondents have a BPL card and cards for MNREGA.

In Bhiloda we tried to catch all strata of people by visiting 3 different types of colonies: Gayatri colony (where most members of the family are working), kutcha house where most BPL families lived and their entrance door was made of raw wooden door with no proper lock system. The third type was very interesting as these people had migrated from Rajashan or were Sindhis. We also wanted to have some views of migrants on the way of this census town and the transformation in order to do that we interviewed 17 per cent migrants in these census towns.

5.3 Observations:

All the above trends have been looked at through tabular analysis to unravel the transformational processes. Findings of the primary survey as summarized in the table reveal that in some of the census towns rural non-farm employment growth is distress driven due to stagnation in agricultural activities and low level of irrigation development. There was also the evidence of the existence of strong backward and forward linkages that motivated increase in the level of RNFE.

The transformation of the villages is aided by the changes in the land uses. Construction is an important activity observed in the some of the towns surveyed. The absence of and adherence to building regulations (example, those related to Floor Space Index (FSI), restriction on height of the building) and other norms was spurring unregulated construction activity in some of the towns surveyed. The problem of land acquisition and change to non-agriculture is also quite rampant. This is facilitated by the fact that the Jantri bill that is to be paid is lower if the place is designated as a village rather than a town. It is apparent that the unregulated construction and development ten years down the line will result in severe congestion, sewage and drainage problems. There is need for adherence to town planning norms and development of Town Planning schemes especially for large villages in proximity to urban centres. Moreover, urban amenities are lacking in most of the villages surveyed and require focus of policies on RURBAN schemes.

We observed that employment schemes like MNREGA are not very successful in Gujarat mainly for two reasons first the wages as casual labour is more than wages through MNREGA. BPL villagers who were in dire need of MNREGA card were not given by Sarpanch saying that they do not have space for new candidates. Similarly, Skill in India programmes is not very popular and villagers did not get opportunity to educate themselves through vocational training. We asked the respondents that would they prefer nagar panchayat or gram panchayat to know the level of corruption in village. Villagers in Kanodar- Banaskantha distinctly preferred gram panchayat as they are performing to the best of their capabilities. Villagers in Amreli- Bhiloda expressed their worries saying that the development of their village will highly depend on the party in power as they generally vote congress so BJP will become a hindrance in their development. Whereas, Becharaji- Mehsana distinctly asked for nagar Panchayat as they confidentially quoted some instances of serious corruption and Chhiri – Vapi preferred nagar panchayat as their population is approx. 60,000 which is difficult for any gram panchayat to perform and to add worries to their situation talati has been given two other villages to work on. Views from other villages where quite mixed as villagers have heard from nearby newly converted towns that nagar palika involves bureaucracy, corruption, local participation in decision making has decreased and taxes will increase.

To know the social impact of the urbanisation we also asked if the respondents feel that their spending habits have changed and it has so happened due to increased disposable income and demonstration effect. In any of the census town we could not find any major changes in food habits as there are few restaurants, respondents live in joint family and the culture of both partners having private jobs is less evident.

Awareness in terms of giving education to girls has increased. One of the problems in that is the availability of trustworthy transport system to nearby town. Generally, those girls have to drop out from secondary school where it is far from village and whose family cannot afford it implying that the education is not reaching to the lowest section of the society. Though malnutrition has reduced it is prevalent in some places where poverty is high.

Some real estate agents also told us that migrated marwadi and sindhi people are buying off tribal land through some unfair means. People feel a pinch of partiality stating that government transfer funds to Idar taluka stating it as tribal whereas it is not. In fact, there are 4 tribal villages which comes under this CT. In this urban village, we could not find out any shop which has hired employees and therefore we could not understand the availability of skilled/educated workers. Most people have small shops where they have their son/wife helping the owner.

A shopkeeper selling garments told us that his shop is flourishing as these tribal people are very rigorous about their social customs. They gift garments to relatives on festivals. In the last decade, the number of shops, parlours and financers has increased by more than 50%.

For selecting this census town, we saw that the population is 17000 which is way more than the criteria of 5000 people. Similarly, the density of the area is also 1167 instead of 400 people per square kilometers. This is a new CT according to Census so we will be able to check the difference in the last decade (as people will be able to recall the difference) plus this urban village has now comes under a new district called Aravalli instead of Sabarkatha.

Bhiloda is a case of direct jump from agricultural sector to service sector. In this urban village, major crop production is wheat, corn, Bajra, chana, tuver, castor and guvar. In terms of regular service sector 34% of population is in government jobs in terms of teachers,

lawyers, class I and II officer, mamlatdar and doctor. We observed that there are two reasons of lacking manufacturing sector, first is government is not setting up industries there which would trickle down in many new job opportunities and other manufacturing units in terms of forward and backward linkage. Secondly, the nature of the tribal people is non-bargaining, non-enterprising and honest which makes it difficult to set up new units without any support from the government. Something interesting to see was that Mr. Nitin Patel (Health, Medical Education, Family Welfare, Road and Building, Capital Project Minister in Gujarat state government of India) conducted lokadalat a day before fieldwork. Some of the real estate agents told us that due to tussle war between politicians their area is not developing as this area has a congress leader. Another lawyer added something striking that whatever development is happening in this area is due to tribal and the reservation quota in government jobs. As, these government employees have more money to spend and also have upgraded the less educated villagers have got self-employment opportunities as a tailor, clothes shop, parlours, real estate agents and mobile shops. In the market area we could notice that this area give a feel of town and not at all of a village. In fact, the shops are pretty expensive there compared to other small towns. The diversification of workers from farm to non-farm is majorly pull factors as they sell off their land and work as self-employed. Amongst certain farm owners' diversification is a combination of pull and push factor due to lack of sufficient water they have to sell off their land.

Sarpanch was well aware and had all the required data on hand even on a holiday. He told us that this village comes under Rurban plan and is classified as a smart village. There are two views a certain group of people are stating that if this area remains tribal politicians will get development funds whereas the sarpanch an honest man wants to get town status as he would get funds under projects for modifying lake and all. Prominent people and politicians are unwilling to change status of this CT as they would have to pay more taxes (water, electricity, and etc). In some census towns, water is available through borewell is of abysmal quality as people suffer from stone and issues related to bones. Tax for water is only 100 rupees for a year. Due to contaminated water, they face issues like stone, weak bones and bad teeth. The charges of jantri registration would also increase, they would have to follow restriction on the height of the building, the shops and houses on the corner of road will have to be narrowed.

5.4 Summary of the findings

We considered 105 household (20 households from each census towns), 26 entrepreneurs and 6 census towns from primary survey. We had 17 per cent Muslims constitute a major portion of the caste composition. However, in the backward region, SC/ST have far outweighed the general caste. Occupation distribution is determined, particularly in the rural areas by the agrarian structure in these census town non-agricultural work was majorly done. The distribution of households on the basis of their operational holdings explains the preponderance of marginal and small cultivators. Consequently, cultivation and agricultural wage labour are significant source of employment for the workers in advanced regions whereas non-farm sector though an important source of employment.

Extent of diversification by the households is analysed by considering the percentage distribution of households in the farm and non-farm sectors. 50 percent of all sample households depended solely on non-farm sector, only 11 per cent of households depended solely on farm sector (most of them are medium and small land owners) and 39 percent of

households depended on non-farm and farm activities (majority of them large and small land owners). In all the census towns significant percentage of households depended only on non-farm sector. The large land owners also participated in non-farm activities, as nearly as 65 percentage of landowners participated in non-farm activities as their principal source of earnings.

In the census towns, we can say that non-farm sector provides much higher employment days than farm sector for landless and marginal land owners. For medium and large land owners farm employment days is higher than non-farm employment days. This is also true for other census towns.

Enterprises in these census towns: Researcher has jotted down some results from 26 enterprise surveys from all the census towns. Majorly to know when did the enterprise start, kind of jobs they do, about labour absorption and census town amenities. The effect of amenities provided to the census town on enterprises and rural employment.

Researcher has jotted down some important findings that Rural non-farm employment and the opportunity to diversify to secondary and tertiary sectors is a prerequisite for enhanced urbanisation. Presence of rural infrastructure (physical and social), and rural market centres, does help in the growth of rural enterprises and employment in the same. Increase in literacy rate and education levels does spur growth in employment.

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Use of Information and Communication Technology in Higher Education in India: A Case of Gujarat

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Abstract

According to an All India Survey on Higher Education, there are 757 Universities, 38056 Colleges and 11922 Stand Alone Institutions and out of which 716 Universities, 29506 Colleges and 6837 Stand Alone Institutions in India. The National Education Policy aims at making India a knowledge superpower by equipping its students with the necessary skills and knowledge and to eliminate the shortage of manpower in science, technology, academics and industry. National Mission on Education through Information and Communication Technology (NMEICT) in 2009 aims at providing opportunity for all teachers and experts to pool their collective wisdom for the benefit of every Indian learner and, thereby, reducing the digital divide. Information and communication technology can be used extensively by all 49 universities and 456 colleges for 6, 31, 535 students for a better delivery of education in the state of Gujarat. Gujarat Knowledge Consortium (KCG) is playing a catalytic role in introducing ICT in universities and colleges across Gujarat. The present paper aims at mapping the adoption of information and communication technology (ICT) by institutions of higher learning in the state of Gujarat.

Keywords: *higher education, information and communication technology, Gujarat*

Introduction

Education is one of the three parameters to measure 'Human Development' (by the United Nations Development Programme, UNDP) and to build social indicator 'Physical Quality of Life Index' (by the Overseas Development Council) in any country every year. Higher education is the most effective tool that has transformed lives of billions across the globe. There is an increasing use of information technology in the modern educational institutions everywhere including India. The present paper aims at mapping the adoption of information and communication technology (ICT) by institutions of higher learning in the state of Gujarat.

India is fast emerging as a country with unparallel strength in soft power, scientific and technical skills and English speaking mass of people. India has already proved itself as computer software super power. Human resource has become the key to development for this youngest country of the world particularly during the post-reform period. Higher education is of vital importance for the country, as it is a powerful tool to build knowledge-based society of the 21st Century. Use of information and communication technology (ICT) can help improve performance of the institutions of higher learning to deliver the best results in India. The colleges and universities in the industrialized state of Gujarat have adopted ICT in varying proportions in order to improve their performance. In that context, this paper attempts to map how ICT has been adopted by institutions of higher learning in Gujarat.

Need for ICT in Higher Education

India is country with a complex network of educational institutions spread all over the country. According to All India Survey on Higher Education, there are 757 Universities, 38056 Colleges and 11922 Stand Alone Institutions and out of them 716 Universities, 29506 Colleges and 6837 Stand Alone Institutions in India (*Table 1*). But, only 46% of the students passing 12^{th} standard are able to enrol for higher education. The National Education Policy aims at making India a knowledge superpower by equipping its students with the necessary skills and knowledge and to eliminate the shortage of manpower in science, technology, academics and industry (National Education Policy, 1986).

Table 1: ***Status of Higher Education in India***

		2012-13	2013-14	2014-15(P)
Number of Universities		667	723	757
Number of Colleges		35,525	36,634	38,056
Number of Stand Alone Institutions		11,565	11,664	11,922
Enrolment in Higher Education -	Total	3,01,52,417	3,23,36,234	3,32,72,722
	Male	1,66,17,294	1,74,95,394	1,79,06,704
	Female	1,35,35,123 (45%)	1,48,40,840 (46%)	1,53,66,018 (46%)

Source:http://aishe.gov.in/aishe/viewDocument.action?documentId=204

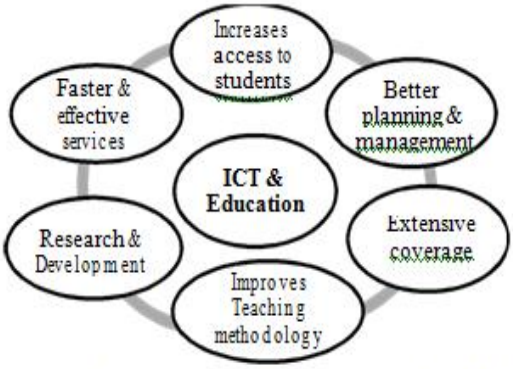
It is the age of information and communication technology. Every field is fast adopting ICT for it being so crucial to do so. The University Grants Commission (UGC) has also accepted that use of ICT by institutes of higher learning is important for both students and teachers. The three cardinal principles of Education Policy viz., access, equity and quality could be served well by providing connectivity to all colleges and universities, providing low cost and affordable access-cum-computing devices to students and teachers and providing high quality e-content free of cost to all learners in the country. National Mission on Education through Information and Communication Technology, 2009 (NMEICT) encompasses all the three elements. Use of ICT in higher education can save time as information moves with speed of light to reach to people anytime anywhere *(Fig. 1)*. It is completely paperless method of communication so it can be called environment friendly. The reach of ICT is both intensive and extensive, so with availability of infrastructure, ICT can reach remotest and most interior places where colleges and universities are located. ICT is simple, transparent and non- discriminatory by nature, so its use can reduce corrupt practices in educational institutions. The use of ICT in higher education can make the whole learning process much faster and effective.

National Mission on Education through ICT

National Mission on Education through Information and Communication Technology (NMEICT) in 2009 aims at providing opportunity for all teachers and experts to pool their collective wisdom for the benefit of every Indian learner and, thereby, reducing the digital divide. Under this Mission, a proper balance between content generations, research in critical areas relating to imparting of education and connectivity for integrating our knowledge with the advancements in other countries is to be attempted. This Mission seeks to support such initiatives and build upon the synergies between various efforts by adopting a holisticapproach. It is obvious that emphasis on ICT is a crying need as it acts as a multiplier for capacity building efforts of educational institutions without compromising the quality.

Gujarat State and Education

Figure: 1, ***Advantages of adoption of ICT in higher education***



Source: Prepared by the author based on NMEICT, 2009

The state of Gujarat has 49 universities of all kinds, namely, state government universities, central government universities, private universities, private aided universities and institutes of national importance *(Table 2).* Though colleges and universities are spread all across the state but major concentration of them is in and around Ahmedabad and Gandhinagar cities. Gross Enrolment Ratio (GER) was observed lower in Gujarat compared to the national average. *(Figure, 3)* With a total provision of Rs 23,815.74 crore, the education sector got the highest share (27.84%) of the Annual Development Plan of Rs 85,557.78 crore of Gujarat state Budget for the financial year 2016-17 but only Rs 725.36 crore (3% of education budget) went to higher education (Indian Express, 2016).

ICT and Higher Education in Gujarat

Information and communication technology can be used extensively by all 49 universities and 456 colleges for 6, 31, 535 students (*Table 3 & 4*) for a better delivery of education in Gujarat. For example, making the whole admission process to different courses online, payment of fees through mobile banking or internet banking, declaring result of examination and provisional mark-sheet online, submission of assignments and projects using email, paperless correspondence, new notifications/declarations/GRs, online calling for applications for recruitments and related correspondence, effective learning through use of slide shows and videos, direct transfer of scholarship to students. Comparing to colleges with the universities in Gujarat, the latter have been using ICT far more in volume and time.

Gujarat Institution of Educational Technology

GIET is to produce high quality and purposeful radio and television programmes for specific age group of children and teachers; and also to provide sufficient support in the production of such programmes in order to bring forth an excellent value based education. The major aims of GIET to produce and broadcast high quality and purposeful radio and television programmes.

***Table 2*: State and type-wise distribution of universities**

State	Central University	Central Open University	Institute of National Importance	Others	State Public University	Institute under State Legislature Act	State Open University	State Private University	State Private Open University	Deemed University-Government	Deemed University-Government Aided	Deemed University-Private	Grand Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Andhra Pradesh				2	20	1				1		4	28
Arunachal Pradesh	1		1					4	1	1			8
Assam	2		2		10		1	3					18
Bihar	2		3		14	1	1			1			22
Chandigarh			1		1					1			3
Chhatisgarh	1		2		11		1	7					22
Delhi	4	1	3	1	6					9	2	1	27
Goa			1		1								2
Gujarat	1		2		25		1	18			1	1	49
Haryana	1		1		13			16		2		3	36
Himachal Pradesh	1		2		4			17					24
Jammu and Kashmir	2		1		7	1							11
Jharkhand	1		1		7			2		1		1	13
Karnataka	1		1		25		1	8		4		11	51
Kerala	1		3		12					2			18
Madhya Pradesh	2		4	1	17		1	13		3			41
Maharashtra	1		3		19		1			7	2	12	45
Manipur	2		1	1									4
Meghalaya	1		1					8					10
Mizoram	1		1					1					3
Nagaland	1		1					2					4
Odisha	1		3		12			3				2	21
Puducherry	1		2									1	4
Punjab	1		4		8			8		1		1	23
Rajasthan	1		3		19		1	32				8	64
Sikkim	1		1					5					7
Tamil Nadu	2		6	1	20		1				2	26	58
Telangana	3		2		11	1	1					2	20
Tripura	1		1					1					3
Uttar Pradesh	4		4		24	1	1	20		3	3	4	64
Uttrakhand	1		3		8		1	8		1	1	1	24
West Bengal	1		5		22		1					1	30
All India	43	1	69	6	316	5	13	176	1	37	11	79	757

Source: http://mhrd.gov.in/sites/upload_files/mhrd/files/statistics/AISHE_2014-15%28P%29.pdf

Table 3: Institutions of Higher Education in Gujarat

Type of Institute	Total
Government Colleges	72
Grant in aid Colleges	357
Research Institutions	10
GBTC	3
Gram Vidhyapith	15
Total	456

Source: http://gujarat-education.gov.in/higher/about_department/overview.htm

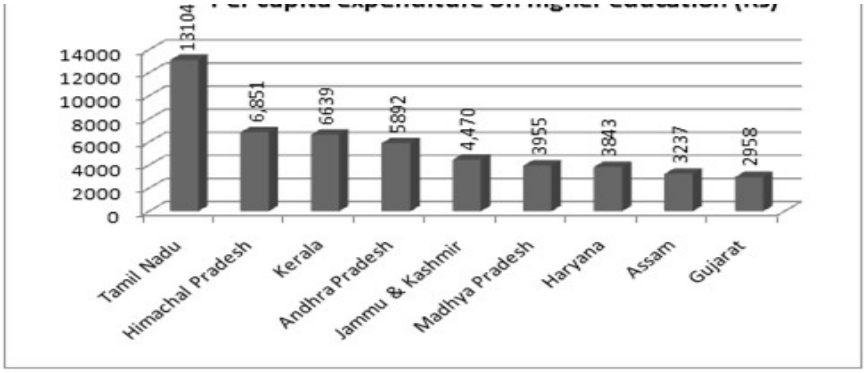
Table 4: Colleges & Number of Students in Gujarat

Type of Institution	No. of Students
Arts	2,48,883
Commerce	1,99,738
Science	1,10,709
Education	57,201
Law College	14,959
Total	6,31,535

Source: http://gujarat-education.gov.in/higher/about_department/overview.htm

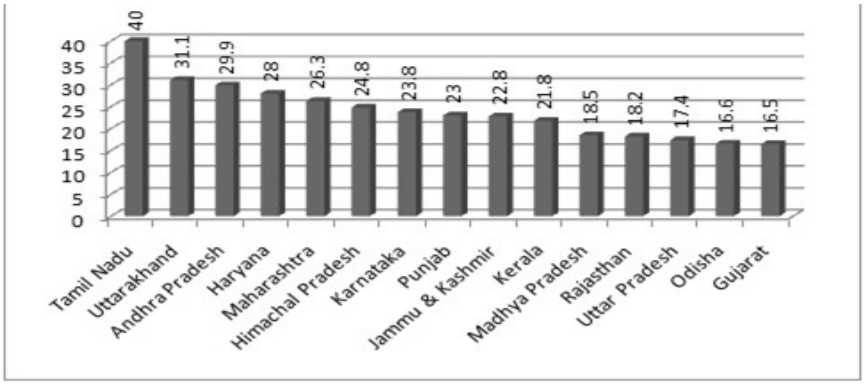
Despite a sharp increase in the number of universities and colleges in the recent past, the Gujarat government continues to perform poorly as compared to many other states in ensuring quality education to college-going children (Shah, 2014). According to „Annual Status of Higher Education of States and Union Territories in India, 2014", „the state government spending on higher education is a meagre 0.39 per cent of the gross state domestic product *(Figure 4)*. Confederation of Indian Industries (CII) Report finds that Gujarat government"s per capita spending on higher education (Rs 2,958) is less than nine major Indian states out of 20. *(Figure 2)*

Figure 2: Per Capita Expenditure on higher education (Rs)



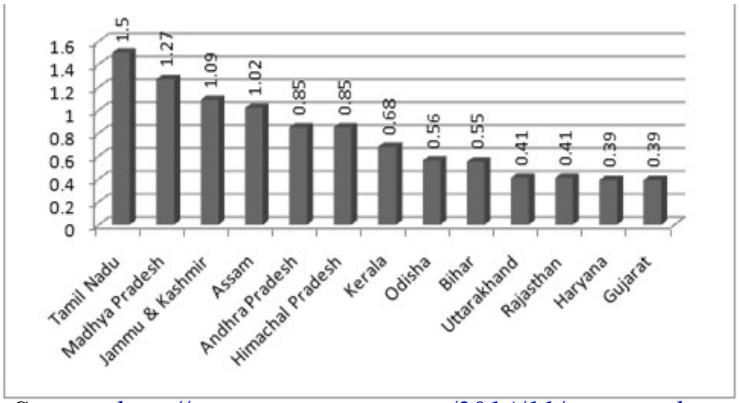
Source: http://www.counterview.net/2014/11/gujarats-lag-in-higher-education-is.html

Figure 3: Gross Enrolment Ratio in Higher Education in India



Source: http://www.counterview.net/2014/11/gujarats-lag-in-higher-education-is.html

Figure 4: ***Spending on higher education (as % of SGDP)***



Source: http://www.counterview.net/2014/11/gujarats-lag-in-higher-education-is.html

Centres of higher learning of national importance like Indian Institute of Management (IIM), Nirma University, Pandit Deendayal University (PDPU), Central University of Gujarat (CUG), Indian Institute of technology (IIT), Institute of Rural Management (IRMA), National Institute of Design (NID) and Entrepreneur Institute of India (EDI) are significantly successful in adopting ICT for last several years. But, the strength of such institutes in terms of number of students is extremely limited as a huge mass of students from Gujarat study in regular state level universities and lately also in the private colleges and universities. INFLIBNET has done a tremendous work in helping professors, researchers and students in exploring study material and relevant resources online. Shodhganga is a most widely used by researchers particularly during PhD and MPhil studies.

It is the UGC and Government of India that are pushing colleges and universities to adopt ICT. Transfer of all kinds of scholarships directly into the student‟s bank account is a landmark development in this context. Most common use of ICT in Gujarat by higher education institutes regular B. Com., B. A. and B.Sc. courses offering is online circulars, notifications and announces. College offering BCA/MCA courses are using maximum of the ICT compared to all other category of institutions. Within the private, public and government aided colleges; it was the private colleges/universities that use ICT more intensively than their counterparts. So far, online submission of assignments and projects is not a reality in the biggest universities of Gujarat such as Gujarat University, South Gujarat University and Hemchandracharya University.

Limitations of ICT Use in Gujarat

The first and foremost limitation in use of ICT at higher education in Gujarat is lack of attitude for this purpose. Colleges and universities end up using ICT only for maintenance of accounts, students' records and a few other things. There is no separate fund or budgetary allocations for ICT at colleges and universities. Despite large quantity of e-material available online, neither there is any awareness of e-content among students in Gujarat nor is the quality of such study material accredited by institutes of repute. So, college students prefer personal or group tuitions to online sources. The KCG has selected only Bhavnagar University, MS University and Saurashtra University from Gujarat to provide 1 GBPS dedicated lines for which Education Department of the Government of Gujarat will bear Rs 60 lakhs per university under the NME-ICT project to modernize universities across the country. Such institutions firmly believe in the traditional ways of running of centres of higher learning. Due to uneven density of mobiles and internet among rural and urban areas, the adoption of ICT at this stage is not equitable and it is biased towards urban centres. Compared to higher internet density in among people in Ahmedabad, Surat, Vadodara and Rajkot, people of Kutch, Surendranagar and Sabarkantha districts have very limited internet access, therefore, adopting ICT by universities and colleges located in such areas may not be as effective as those located in

Ahmedabad, Surat, Vadodara and Rajkot. So, students find it difficult to benefit out of ICT. Despite availability of mobile phones with students hailing from poor families, due to limited access to cheaper internet they find it difficult to benefit from ICT in higher learning. Students living in rural areas are not aware of change in dates for examination and online filling up of application forms. Incompetence in English language itself is a major hurdle for them. E-content (UGC), EDUSAT- satellite exclusively devoted to meet the demands of educational sector has not found many users in Gujarat. Difference in syllabus, odd timings of telecast, introductory nature of expert lectures, transmission problems, etc are some of the reasons.

Mani-a-times, access to a website become difficult at the most crucial moments due to non-availability of broadband connection, slowdown or even failure of computer servers due to too much of download or upload, e.g. Gujarat University during admission process carried out online during last two academic years. Thanks to Reliance Jio's free internet and telephone calls, the usage of smart phones has increased substantially all across the state cutting across the caste, creed and gender. In case of Gujarat University, the online admission process takes more than the normal offline admission process due to its mammoth strength of students. This eventually reduced the number of teaching days for the students of semester-I of B.Com, BBA and BA courses particularly.

Adoption of ICT in classroom teaching has actually not been implemented universally in Gujarat except in the business management and computer related courses at Nirma University and CEPT University to name a few. Each university or even a college for that matter may have more or less IT related machines and equipments but there is no capacity use of such equipments. Either the members of faculty particularly of humanities or commerce courses are not computer savvy themselves or there are no required ICT equipments at the institutes at all or both. Never the less, the newly set up private universities like GLS University and Ahmedabad University are quick to learn and have introduced ICT at least in students' presentation of projects, submission of question papers by teachers in soft copies, college announcements in digital forms, etc. But, it would take a while for such institutions to fully go digital or online. Looking at the quantum of work related to introduction of ICT in higher education substantially remaining undone and only as a target of the Ministry of HRD, Government of India, it appears that the objectives may not be fulfilled in the next decade or so.

Suggestions

The colleges and universities have to learn to think beyond ordinary use of ICT for better administration, greater transparency and quality delivery of education. Digital literacy among students and teachers is the first and foremost requirement. Data centres, easily accessible to all should be set everywhere. The e-content should not only have text and images but should also have quality video lectures in Gujarati language. The government should promote and finance development of mobile application based good quality content by renowned academicians in regional language. The online material should be reliable

enough to win the trust of students for preparation of examination. Compulsory training should be given to teachers for preparation of online study material. Colleges and universities should compulsorily purchase access to e-libraries and e-journals to improve e-learning among students. Each college/university should have enough ICT infrastructures to accommodate as many students as possible. Online distance learning can be prioritized by universities and colleges in Gujarat. Each course should include a component of computer skills in the syllabus. The university or college should not make any task online compulsory but should keep an option that would help those who are not well equipped with computers and online procedures. Unless ICT is used for classroom teaching, interaction between students and teachers and access to study material available online, its effectiveness and performance would remain below its capacity.

References:

1. All India Survey on Higher Education, 2014-15 (Provisional), Government of India Ministry of Human Resource, Government of India, 2015. http://mhrd.gov.in/sites/upload_files/mhrd/files/statistics/AISHE_2014-15%28P%29.pdf (accessed 11 March, 2016).
2. The Indian Express (2016) Gujarat Budget: Education sector gets 23,815.74 crore; Rs 8,402 crore for construction of roads and buildings, 24 February. http://indianexpress.com/article/india/india-news-india/gujarat-budget-education-sector-gets-23815-74-crore- rs-8402-crore-for-construction-of-roads-and-buildings/ (accessed 1 March, 2016).
3. http://mhrd.gov.in/sites/upload_files/mhrd/files/statistics/AISHE_2014-15%28P%29.pdf (accessed 4 March, 2016).
4. http://mhrd.gov.in/technology-enabled-learning (accessed 4 March, 2016).
5. Commissionerate of Higher Education, Education Department - Government of Gujarat http://gujarat-education.gov.in/higher/about_department/overview.htm
6. "Annual Status of Higher Education of States and Union Territories in India, 2014" http://www.counterview.net/2014/11/gujarats-lag-in-higher-education-is.html

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Mahatma Gandhi National Rural Employment Guarantee Scheme: A Case of Rajasthan

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Abstract

The National Rural Employment Guarantee Act (2005) which was renamed after Mahatma Gandhi as The Mahatma Gandhi National Rural Employment Guarantee Act is the social security act which guarantees the Right to Work. By providing 100 days of wage employment to every willing household the act aims at improving the livelihood security of rural poor. It is one of the largest public work programmes in the world. Rajasthan is one of states where MGNREGA is very much successful, it has become the role model for other states implementation of MGNREGA. The present paper based on secondary data aims at analysing the performance of the scheme in the state of Rajasthan.

Key words*: empowerment of marginalised communities, average days of employment*

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Mahatma Gandhi National Rural Employment Guarantee Scheme: A Case of Rajasthan

Introduction:

India has a long history employment programmes such as Integrated Rural Development Programme, Training of Rural Youth for Self Employment, National Rural Employment Programme, Rural Landless Employment Guarantee Programme, Employment Assurance Programme, Sampoorna Gramin Rojgar Yojna and so on. Taking lessons from the failure of these schemes and programmes the UPA government enacted National Rural Employment Guarantee Act, famously known as NREGA, in 2005 and implemented in 2006 in the most 200 backward districts of the country.The aim of the programme is to address the issues like chronic poverty, rural-urban migration, drought, generation of productive assets, empowerment of women etc.

MGNREGA in Rajasthan:

The word BIMARU is used for a group of four states namely Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh. The term was used for them because of their poor economic condition and these states were held responsible for retarding the growth rate of Indian GDP. Looking at the poor economic condition of the state, the government of India implemented NREGA in six districts of Rajasthan namely Banswara, Dungarpur, Jhalawar, Karauli, Sirohi and Udaipur in the first phase. In the second phase the scheme was extended to six more districts, Tonk, SawaiMadhopur, Chittorgarh, Barmer, Jalore and Jaisalmer. In the third phase entire Rajasthan was covered under the scheme.

Review of literature:

The study of Sharma (2009) found caste discrimination in Rajasthan. The lower caste households were provided work under the scheme far off the village while the upper caste families were provided nearby the village.

Mrutyunjay Swain and Shreekant Sharma in their study revealed that only in the districts of Banswara, Barmer and Pratapgarh more job cards were provided to Schedule Tribe. Moreover they also found that between 2008-09 and 2010-11 there was declining trend in share of SC/ST was while there was increasing trend in general category.

Because of MGNREGA the migration has declined in Rajasthan, it was found that in Rajasamand and Dungarpurdistrcits of Rajasthan most of the NREGA workers were found to be women and old men who had stopped migration because in urban areas the wage rates offered were higher for men. Women exercise independence in spending the money earned from NREGA. (MGNREGA Sameeksha, 2006-2012)

The study undertaken by Lalit Mohan in 2012 in Kushalgarh block of Banswara district in Rajasthan found that earlier women were restricted by rigid traditions but now they were

coming out, they were working under MGNREGA, they were taking part in social audit and gramsabha. Because of the scheme households were earning additional income. But the study also revealed that still the poor and disadvantaged people has to pay bribe to get their job cards.

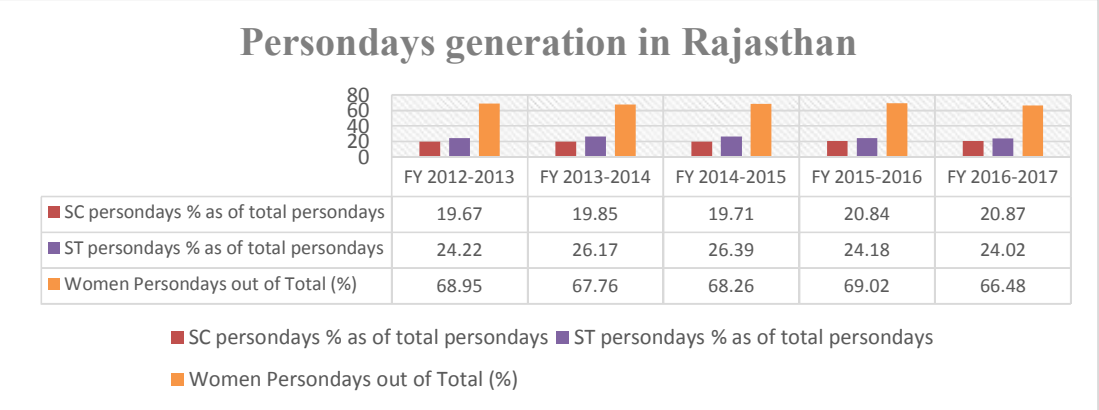
MGNREGA in Rajasthan:

Rajasthan					
Total No. of Districts					33
Total No. of Blocks					295
Total No. of GPs					9,895
I Job Card					
Total No. of JobCards issued[In Lakhs]					100.07
Total No. of Workers[In Lakhs]					238.34
Total No. of Active Job Cards[In Lakhs]					59.63
II Progress	**FY 2016-2017**	**FY 2015-2016**	**FY 2014-2015**	**FY 2013-2014**	**FY 2012-2013**
Persondays Generated so far[In Lakhs]	1761.81	2341.25	1686.19	1838.56	2203.08
SC persondays % as of total persondays	20.87	20.84	19.71	19.85	19.67
ST persondays % as of total persondays	24.02	24.18	26.39	26.17	24.22
Women Persondays out of Total (%)	66.48	69.02	68.26	67.76	68.95
Average days of employment provided per Household	44.67	55.47	45.74	50.86	52.25
Average Wage rate per day per person(Rs.)	125.35	116.41	109.17	106.6	98.5
Total No of HHs completed 100 Days of Wage Employment	1,11,390	4,68,700	2,81,273	4,46,095	4,21,810
Total Households Worked[In Lakhs]	39.44	42.21	36.87	36.15	42.17
Total Individuals Worked[In Lakhs]	55.01	60.23	51.43	50.22	57.91
Differently abled persons worked	7802	7146	4068	3122	3211
III Financial Progress					
Total centre Release	358340.82	269583.23	297609.87	205943.32	258534.43
Total Availability	397667.54	321091.78	338641.99	294618.26	288695.05
Percentage Utilization	91.45	101.79	96.02	89.09	113.31
Total Exp. (Rs. in Lakhs.)	3,63,653.4	3,26,838.74	3,25,180.05	2,62,472.9	3,27,126.54
Percentage Utilization	91.45	101.79	96.02	89.09	113.31
Wages(Rs. In Lakhs)	2,46,344.22	2,49,948.88	2,10,413.76	1,81,722.27	2,17,285.9
% payments generated within 15 days	76.5	46.05	40.62	14.95	53.07

Source: www.mgnrega.nic.in

The table above shows that MGNRGA is operational in 33 districts, 295 blocks and 9,895 Gram Panchayats of Rajasthan. In the state so far more than 100 lakh job cards have been issued, total 238.34 lakh workers have been registered under the scheme. Women participation in the state has been always more than 65%, slight increase in the share of women can be seen between 2012-13 and 2015-16. The percentage share of SC also has slightly increased while that of ST has declined.

Persondays generation in Rajasthan:



Source: prepared by the author using the data from mgnrega website

Overview of MGNREGA in Rajasthan: (since 2006)

Employment provided to households:	36.14758 Lakhs
Persondays [in Lakh]:	
Total:	1838.26
SCs:	364.64 [19.84%]
STs:	480.85 [26.16%]
Women :	1245.53 [67.76%]
Others:	992.76 [54.01%]
Total works taken up:	383305
Works completed:	78691
Works in progress :	304614

Source: www.mgnrega.nic.in

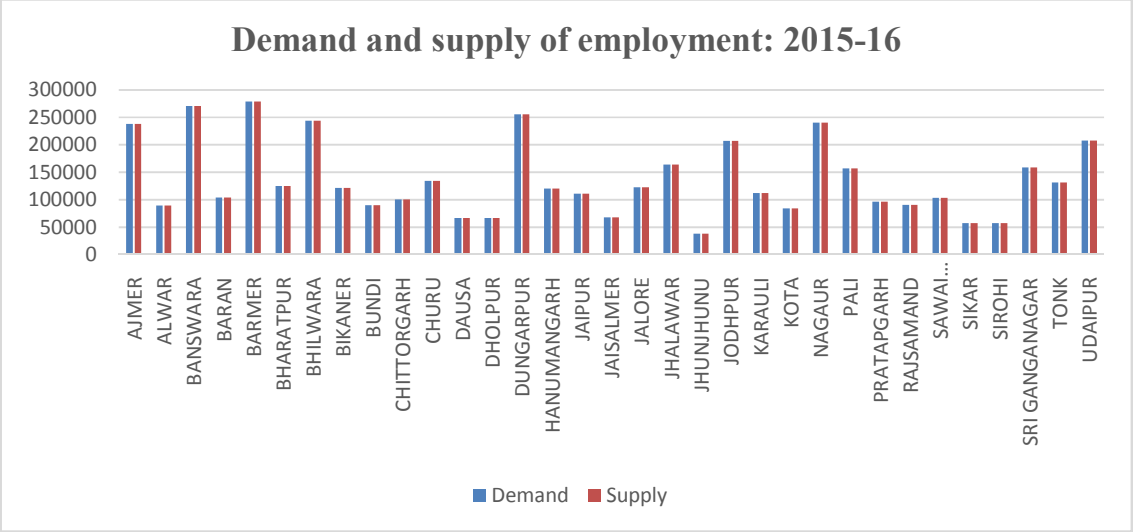
So far total 36.14758 Lakhs households have been provided employment among which 19.84% of HH were SCs and 26.16% were STs. The participation of women is very high in the state (67.76%) which shows that women under the scheme are actively taking part and MGNREGA is an important source of employment for women in the state. Out of total works taken up 78691 works have been completed which shows that the work completion rate has been only around 20%.

Demandand supply of employment: (in number of households)

District	2015-16	
	Demand	**Supply**
AJMER	237885	237885
ALWAR	89533	89533
BANSWARA	271041	271041
BARAN	103978	103978
BARMER	279083	279083
BHARATPUR	124971	124971
BHILWARA	244226	244226
BIKANER	121745	121745
BUNDI	90130	90130
CHITTORGARH	100407	100407
CHURU	134249	134249
DAUSA	66812	66812
DHOLPUR	66752	66752
DUNGARPUR	255677	255677
HANUMANGARH	120157	120157
JAIPUR	110744	110744
JAISALMER	68117	68117
JALORE	122860	122860
JHALAWAR	164234	164234
JHUNJHUNU	37682	37682
JODHPUR	207559	207559
KARAULI	112705	112705
KOTA	84128	84128
NAGAUR	240741	240741
PALI	157030	157030
PRATAPGARH	96461	96461
RAJSAMAND	90737	90737
SAWAI MADHOPUR	103397	103397
SIKAR	56882	56882
SIROHI	57745	57745
SRI GANGANAGAR	159290	159290
TONK	131674	131674
UDAIPUR	207914	207914
GRAND TOTAL	4516546	4516546
AVERAGE	136865	136865

Source: www.mgnrega.nic.in

It is clear from the data that in all the districts all households were provided employment, i.e. the demand for and supply of employment was equal. At the state level on an average 136865 households demanded employment under the scheme in the year 2015-16. But the demand and supply of employment varied from district to district. The highest demand for employment was recorded in district of Barmer followed by Banswara.

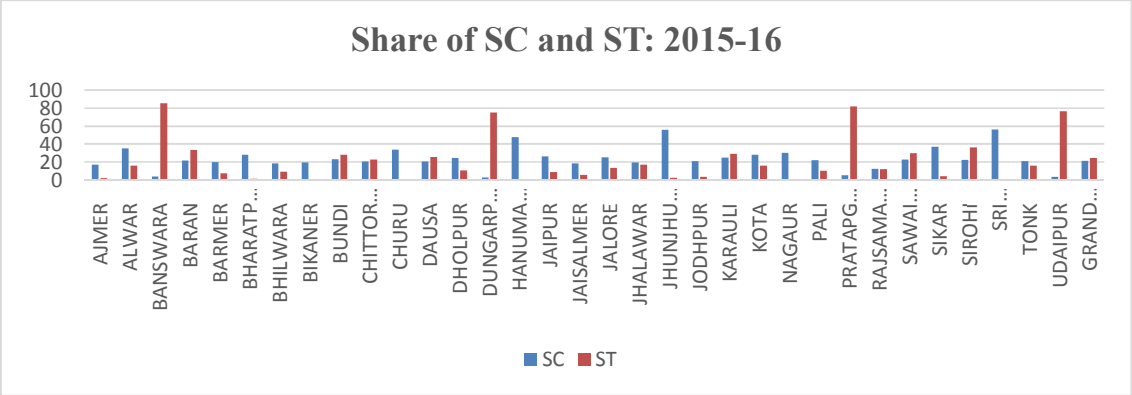


Source: prepared by the author using data from mgnrega website

District	SC	ST	Women
AJMER	17.11	2.3	79.38
ALWAR	35	16.32	70.07
BANSWARA	3.99	85.43	59.71

The combined share of Ajmer, Banswara, Barmer, Bhiwara, Dungarpur, Nagpur, Jodhpur and Udaipur was 43% for the year 2015-16. The lowest demand and supply of employment was observed in Jhunjhunu, Sikar and Sirohi.

Percentage share of marginalised groups:



Source: prepared by the author using data from mgnrega website

BARAN	21.83	33.7	64.62
BARMER	19.98	7.79	60.94
BHARATPUR	28.02	1.65	63.66
BHILWARA	18.33	9.72	81.8
BIKANER	19.67	1.07	47.58
BUNDI	23.15	28.31	68.34
CHITTORGARH	20.68	22.96	72.11
CHURU	33.79	1.11	62.05
DAUSA	20.64	26.13	80.63
DHOLPUR	24.72	11.06lo	54.4
DUNGARPUR	2.95	75.25	69.64
HANUMANGARH	47.69	0.4	65.81
JAIPUR	26.26	9.31	86.08
JAISALMER	18.52	5.95	60.68
JALORE	25.34	14.07	81.79
JHALAWAR	19.83	17.18	61.76
JHUNJHUNU	55.83	2.61	66.55
JODHPUR	21.18	3.91	75.24
KARAULI	25.25	29.44	61.87
KOTA	28.12	16.24	66.22
NAGAUR	30.38	0.55	73.8
PALI	22.15	10.56	84.06
PRATAPGARH	5.22	81.89	64.14
RAJSAMAND	12.32	12.17	85.7
SAWAI MADHOPUR	22.66	30.07	58.25
SIKAR	37.03	4.54	78.01
SIROHI	22.52	36.63	87.19
SRI GANGANAGAR	56.19	0.29	64.08
TONK	20.91	16.25	71.57
UDAIPUR	3.83	76.81	67.69
GRAND TOTAL	21.38	24.82	69.57

Source: www.mgnrega.nic.in

The graph above shows that for the year 2015-16 the highest share of ST in the state was recorded in Banswara, Pratapgarh, Udaipur and Dungarpur. The combined share of these four districts in terms of share of ST was found to be more than 66%. The districts with less than 5% of ST participation were Ajmer, Bharatpur, Bikaner, Churu, Hanumangarh, Jhunjhunu, Nagpur, Sikar and Sri Ganganagar. At the state level the share of ST was found to be 24.82%. The share of SC was highest in Sri Ganganagar followed by Jhunjhunu while it was lowest in Dungarpur. The state average for SC participation was 21.38%. The districts in which the share of SC was more than that of state share were Alwar, Bharatpur, Churu, Hanumangarh, Jhunjhunu, Kota, Nagpur, Sikar and Sri Ganganagar.

The share of women in Rajasthan in 2015-16 was around 70% which is much higher than the national average of 58% for the same year and which is also much higher than the stipulated rate of 33%. The districts with more than 80% of women participation were Dausa, Jaipur,

Pali, Rajsamand and Pali. The lowest women participation of 47.58% was registered in Bikaner followed by Dholpur.

District	Average persondays per Household	Number of Households Availed 100 days of Employment
AJMER	49.39	9943
ALWAR	37.66	2426
BANSWARA	49.27	12912
BARAN	50.74	9848
BARMER	49.8	22405
BHARATPUR	36.32	2355
BHILWARA	48.55	13294
BIKANER	47.69	7898
BUNDI	43.18	3036
CHITTORGARH	50.23	6660
CHURU	45.47	6441
DAUSA	38.18	1777
DHOLPUR	43.45	2510
DUNGARPUR	59.04	20348
HANUMANGARH	54.42	11644
JAIPUR	33.66	1871
JAISALMER	54.08	6236
JALORE	57.43	16848
JHALAWAR	40.99	4712
JHUNJHUNU	57.47	5440
JODHPUR	47.39	9625
KARAULI	37.71	2969
KOTA	55.67	6977
NAGAUR	50.66	15079
PALI	52.04	10402
PRATAPGARH	46.69	4576
RAJSAMAND	58.06	10338
SAWAI MADHOPUR	39	3184
SIKAR	52.14	6075
SIROHI	53.3	4955
SRI GANGANAGAR	55.86	16303
TONK	42.99	4348
UDAIPUR	46.41	13056
GRAND TOTAL	48.57	276491

Source: www.mgnrega.nic.in

The average persondays per household generated in the state for the year 2015-16 was 48.57 days (higher than that of national average of 34 days). Except Jaipur all the districts of the state generated more average persondays than the national average. The highest average was recorded in the district of Dungarpur while the lowest was in Jaipur. In the state total 2,

76,491 HH were provided hundred days of employment under the scheme, this means out of total only 6% of the HH were provided 100 days of employment.

Conclusion:

Rajasthan, one of the BIMARU states, has less employment opportunities. A large part of the state is desert and the land is not much fertile and that is why the employment scheme like MGNREGA is very much required. In the first and second phases total 12 districts the state were covered under the scheme and in the third phase entire states was covered under the scheme. The share of women in total employment has always been more than 65%. Since the inception of the scheme percentage share of SC has increased marginally while that of ST has more or less remained same. The highest SC participation was recorded in Banswara and the highest ST participation was in Sri Ganganagr in 2015-16. For the year 2015-16 the average persondays per household generated in the state was found to be higher than the national average.

References:

Sharma Anil, Prabhu Ghate, Laxmi Joshi and Ajay Sahu (2009), *'Study on Evaluating Performance of National Rural Employment Guarantee Act'*, NCAER-PIF Publications

Mrutyunjay Swain Shreekant Sharma (2011), 'Impact of NREGA on Wage Rates, Food Security and Rural Urban Migration in Rajasthan in working', working paper no. 139, Agro Economic Research Centre Sardar Patel University, Vallabh Vidyanagar, Gujarat

Ministry of Rural Development, Government of India, *MGNREGA Sameeksha, 2006-2012,* Orient Black Swan

Mohan, L and et al., (2012), *'People's Lives before and after implementation of MGNREGA - a case of tribal Rajasthan'*, Indian Institute of Health Management Research, International Journal of Rural Studies (IJRS)

Website:

- www.mgnrega.nic.in
- www.rural.nic.in
- http://knowledge.nrega.net/

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Changes in Tax and Non Tax Revenue of Central Government: Evidential Analysis

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Abstract

Efficient and effective functioning of government is not possible without adequate financial resources. Government has various sources of finance including tax and not tax sources. Over a period of time the structure and direction of sources of finance of the government has undergone a change. Present study focuses on various tax and non tax revenue of central government. It can be seen from the data that share of direct tax and indirect tax in total tax revenue of the central government has been showing systematic pattern over a period of time. Direct tax contributed nearly 21 percent to total tax revenue of the central government while 79 percent has been contributed by indirect taxes during 1970-71. The share of direct taxes in total tax revenue remained stable till 1993-94 except during brief period of 1984-90 witnessing some reduction. But the share of direct taxes in total tax revenue of central government has stated increasing after 1994-95 reaching record level of nearly 60 percent during 2009-10 but declined thereafter reaching nearly 50 percent during 2016-17.

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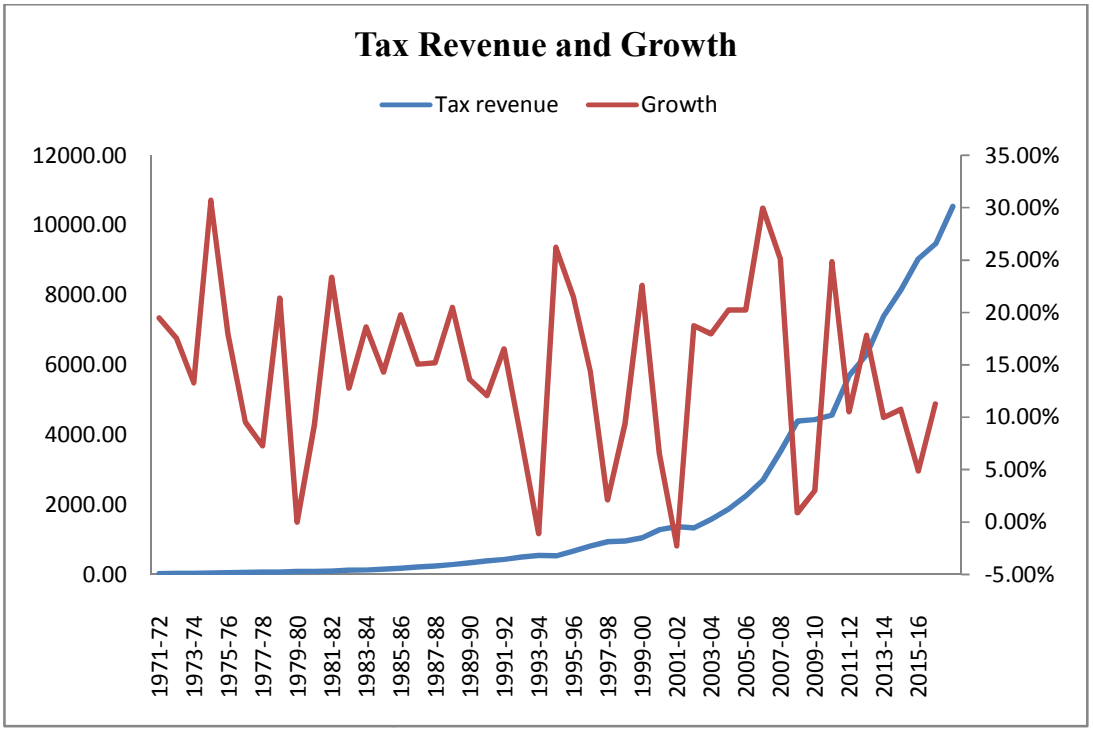
Changes in Tax and Non Tax Revenue of Central Government: Evidential Analysis

Tax is the main source of revenue for the central government. Tax revenues of the central government are either from direct taxes or indirect taxes. Direct tax of the central government means a tax paid directly to the government by the persons on whom it is imposed. Thus direct taxes are to be paid by the person on whim government has imposed the same. Indirect tax of the central government is a tax collected by an intermediary (such as a retail store) from the person who bears the ultimate economic burden of the tax (such as the consumer) i.e. tax is levied on one person but burden of the tax is on another person. Thus one can say that an indirect tax is a tax that is paid to the government by one entity in the supply chain, but it is passed on to the consumer as part of the price of a good or service. The consumer is ultimately paying the tax by paying more for the product. An indirect tax is shifted from one

Indirect taxes are defined by contrasting them with direct taxes. In the case of direct taxes, the person immediately paying the tax is the person that the government is seeking to tax. Income tax is the clearest example of a direct tax, since the person earning the income is the one immediately paying the tax.

Tax Revenue and Growth					
Year	**Tax revenue**	**Growth**	**Year**	**Tax revenue**	**Growth**
1970-71	24.51	-	1994-95	674.54	26.20%
1971-72	29.28	19.46%	1995-96	819.39	21.47%
1972-73	34.43	17.59%	1996-97	937.01	14.35%
1973-74	39.00	13.27%	1997-98	956.72	2.10%
1974-75	50.97	30.69%	1998-99	1046.52	9.39%
1975-76	60.10	17.91%	1999-00	1282.71	22.57%
1976-77	65.81	9.50%	2000-01	1366.58	6.54%
1977-78	70.60	7.28%	2001-02	1335.32	-2.29%
1978-79	85.68	21.36%	2002-03	1585.44	18.73%
1979-80	85.67	-0.01%	2003-04	1869.82	17.94%
1980-81	93.58	9.23%	2004-05	2247.98	20.22%
1981-82	115.42	23.34%	2005-06	2702.64	20.23%
1982-83	130.17	12.78%	2006-07	3511.82	29.94%
1983-84	154.41	18.62%	2007-08	4395.47	25.16%
1984-85	176.51	14.31%	2008-09	4433.19	0.86%
1985-86	211.40	19.77%	2009-10	4565.36	2.98%
1986-87	243.19	15.04%	2010-11	5698.68	24.82%
1987-88	280.15	15.20%	2011-12	6297.64	10.51%
1988-89	337.51	20.47%	2012-13	7418.77	17.80%
1989-90	383.49	13.62%	2013-14	8158.54	9.97%
1990-91	429.78	12.07%	2014-15	9036.15	10.76%
1991-92	500.69	16.50%	2015-16	9475.08	4.86%
1992-93	540.44	7.94%	2016-17	10541.01	11.25%
1993-94	534.49	-1.10%			
https://dbie.rbi.org.in					

CAGR: Tax Revenue	
Period	**Tax revenue**
1970-80	14.92%
1980-90	16.97%
1990-2000	12.92%
2000-2010	14.34%
2010-2017	10.79%



The data on about tax revenue of the central government since 1970-71 to 2016-17 is presented in table and graph below along with annual growth rate. It is evident from the data that tax revenue of the central government has increased from Rs 24.51 billion during 1970-71 to Rs 429.78 billion during 1990-91 and further increased to Rs 4565.36 billion during 2009-10 reaching record level of Rs 10541.01 billion during 2016-17. Sharp increase in tax revenue of the central government can be noticed after 2000-01.

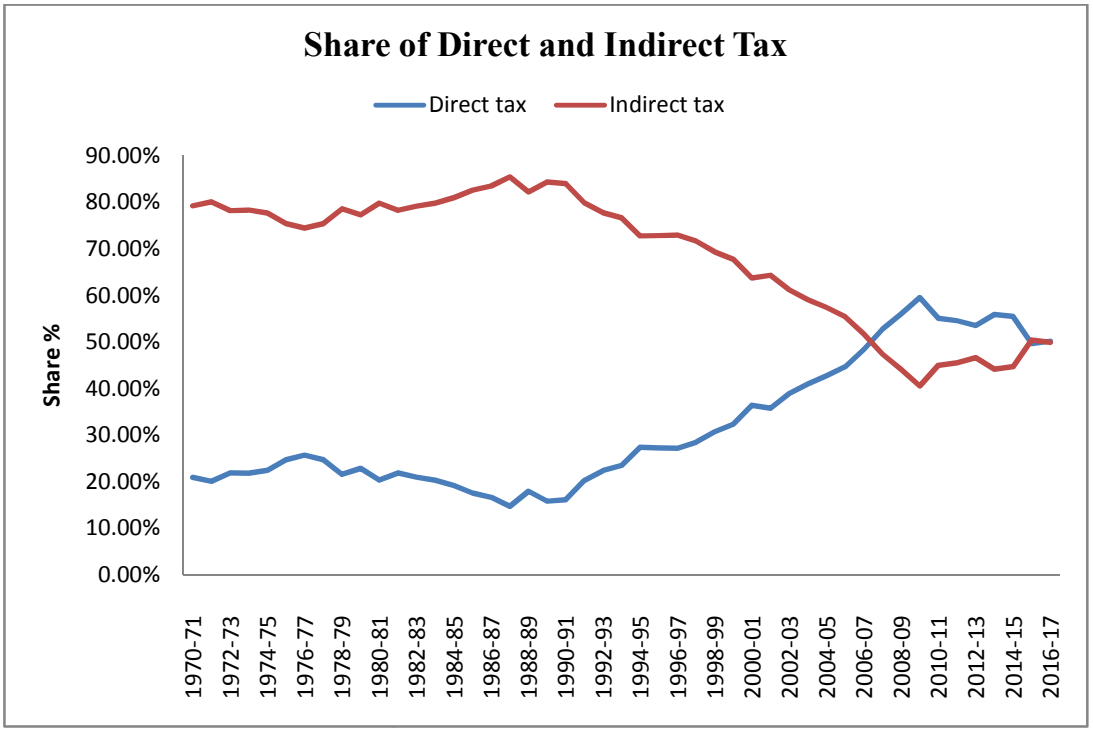
The data about annul growth in tax revenue of the central government shows wide fluctuations during the period. The highest annual growth of 30.69 percent in tax revenue of the central government has been registered during 1974-75 followed by 29.94 percent during 2006-07 and 26.20 percent during 1994-95. For the better understanding of the long term trend in tax revenue of the central government decadal CAGR has been computed and presented in table below. The data shows that decadal growth in tax revenue has remain stable over a period of time. Tax revenue of the central government has registered CAGR of 14.92 percent during 1970-80 which increased to 16.97 percent during 1980-90 but declined to 12.92 percent during 1990-00. During recent period 2010-17 the tax revenue of the central

government has registered CAGR of 10.79 percent which is very low as compared to previous periods.

It interesting to compare the share of direct and indirect taxes in the total tax revenue of the central government. The comparative picture is presented in table and graph below.

Share of Direct and Indirect Tax in Tax Revenue					
Year	**Direct tax**	**Indirect tax**	**Year**	**Direct tax**	**Indirect tax**
1970-71	20.85%	79.15%	1994-95	27.29%	72.71%
1971-72	20.01%	79.99%	1995-96	27.20%	72.80%
1972-73	21.84%	78.16%	1996-97	27.08%	72.92%
1973-74	21.74%	78.26%	1997-98	28.40%	71.60%
1974-75	22.41%	77.61%	1998-99	30.69%	69.31%
1975-76	24.63%	75.37%	1999-00	32.30%	67.70%
1976-77	25.62%	74.38%	2000-01	36.33%	63.67%
1977-78	24.67%	75.34%	2001-02	35.72%	64.28%
1978-79	21.50%	78.50%	2002-03	38.86%	61.14%
1979-80	22.76%	77.24%	2003-04	40.96%	59.04%
1980-81	20.23%	79.77%	2004-05	42.68%	57.32%
1981-82	21.82%	78.18%	2005-06	44.66%	55.34%
1982-83	20.92%	79.08%	2006-07	48.33%	51.67%
1983-84	20.28%	79.72%	2007-08	52.68%	47.32%
1984-85	19.12%	80.88%	2008-09	55.98%	44.02%
1985-86	17.49%	82.51%	2009-10	59.50%	40.50%
1986-87	16.54%	83.46%	2010-11	55.01%	44.99%
1987-88	14.64%	85.36%	2011-12	54.51%	45.49%
1988-89	17.84%	82.16%	2012-13	53.46%	46.54%
1989-90	15.72%	84.28%	2013-14	55.87%	44.13%
1990-91	16.06%	83.94%	2014-15	55.39%	44.61%
1991-92	20.18%	79.82%	2015-16	49.62%	50.38%
1992-93	22.34%	77.66%	2016-17	50.13%	49.87%
1993-94	23.43%	76.57%			

It can be seen from the data that share of direct tax and indirect tax in total tax revenue of the central government has been showing systematic pattern over a period of time. Direct tax contributed nearly 21 percent to total tax revenue of the central government while 79 percent has been contributed by indirect taxes during 1970-71. The share of direct taxes in total tax revenue remained stable till 1993-94 except during brief period of 1984-90 witnessing some reduction. But the share of direct taxes in total tax revenue of central government has stated increasing after 1994-95 reaching record level of nearly 60 percent during 2009-10 but declined thereafter reaching nearly 50 percent during 2016-17.



On the other hand the share of indirect taxes in total tax revenue of central government has remained around 80 percent during the period 1970-71 to 1983-84 but increased thereafter for short period before 1991-92. Post liberalization period there has been marked declined in the share of indirect taxes from 79.82 percent during 1990-91 to 40.50 percent during 2009-10. Year 2006-07 was the year which both direct and indirect taxes contributing nearly equal proportion to total tax revenue of the central government. After the year 2006-07 the share of direct taxes has remained higher than that of indirect taxes.

Non Tax Revenue

Non-Tax Revenue of the central government are those revenue receipts which are not generated by imposition of tax on public, neither direct nor indirect. Money which the central government earns as "Dividends and profits" from its profit making public enterprises (PSUs, interest which the government earns on the money lent to external or internal borrowers are some of the examples of non tax revenue. It also includes the money which the government receives out of its fiscal services such as stamp printing, currency printing, medal printing etc., money which the government earns from its "General Services" such as power distribution, irrigation, banking services, insurance, and community services etc. are also part of non tax revenue of the central government. Similarly money which the government accrues as fees, fines, penalties etc. grants the government of India receives from the external sources. Recently spectrum auctions have been one of the major sources of non-tax revenues for the central government. Some of the non tax revenues of central government are described here for reference;

Interest Receipts:

Interest income is largest non-tax source of Central Government's revenue receipts. Central government earn interest mainly on the loans it has advanced given to State Governments, to financial and industrial enterprises in the public sector.

Surplus Profits of the Reserve Bank of India (RBI):

The surplus profits of the RBI are also a part of the non tax revenues of the Central Government. In recent years, these have been quite substantial because of the large borrowing by the Government from the RBI against Treasury Bills for financing plan expenditure.

Currency, Coinage and Mint:

Central Government also derives income from running the Currency Note Printing Presses. Moreover, profits are made from the circulation of coins — this profit being the difference between the face value of the coins and their manufacturing cost.

Railways:

Railway in India is owned and run and managed by the Government of India and it pay a fixed dividend to general revenues, i.e., to the Central Government, on the capital invested in the railways. Apart from this part of the profit made by railway also goes to government as revenue.

Profits of Public Enterprises:

Public enterprises are enterprises owned by Central government. Public enterprises owned by the Central Government include Steel Authority of India (SAIL), Hindustan Machine Tools (HMT), Bharat Heavy Electricals Ltd. (BHEL), State Trading Corporation (STC) etc. The profits made by these Public Sector Units (PSUs) are another source of revenue for the Government of India.

The contribution of tax and non tax receipts of the central government to total revenue receipts is presented in table and graph below.

Tax and Non Tax Revenue (% of Revenue Receipts)					
Year	**Tax revenue**	**Non-tax revenue**	**Year**	**Tax revenue**	**Non-tax revenue**
1970-71	74.43%	25.57%	1994-95	74.06%	25.94%
1971-72	75.70%	24.30%	1995-96	74.40%	25.60%
1972-73	76.12%	23.88%	1996-97	74.20%	25.80%
1973-74	77.78%	22.22%	1997-98	71.46%	28.54%
1974-75	79.12%	20.88%	1998-99	70.01%	29.99%
1975-76	76.42%	23.58%	1999-00	70.68%	29.32%
1976-77	76.81%	23.19%	2000-01	70.95%	29.05%
1977-78	74.02%	25.98%	2001-02	66.33%	33.67%
1978-79	78.08%	21.92%	2002-03	68.68%	31.32%
1979-80	77.12%	22.88%	2003-04	70.88%	29.12%
1980-81	75.63%	24.37%	2004-05	73.47%	26.53%
1981-82	76.82%	23.18%	2005-06	77.87%	22.13%
1982-83	74.66%	25.34%	2006-07	80.85%	19.15%
1983-84	78.34%	21.66%	2007-08	81.12%	18.88%
1984-85	75.22%	24.78%	2008-09	82.06%	17.94%
1985-86	75.41%	24.59%	2009-10	79.70%	20.30%
1986-87	73.51%	26.49%	2010-11	72.28%	27.72%
1987-88	75.64%	24.36%	2011-12	83.81%	16.19%
1988-89	77.43%	22.57%	2012-13	84.38%	15.62%
1989-90	73.33%	26.67%	2013-14	80.40%	19.60%
1990-91	78.21%	21.79%	2014-15	82.04%	17.96%
1991-92	75.83%	24.17%	2015-16	78.56%	21.44%
1992-93	72.91%	27.09%	2016-17	76.55%	23.45%
1993-94	70.84%	29.16%			

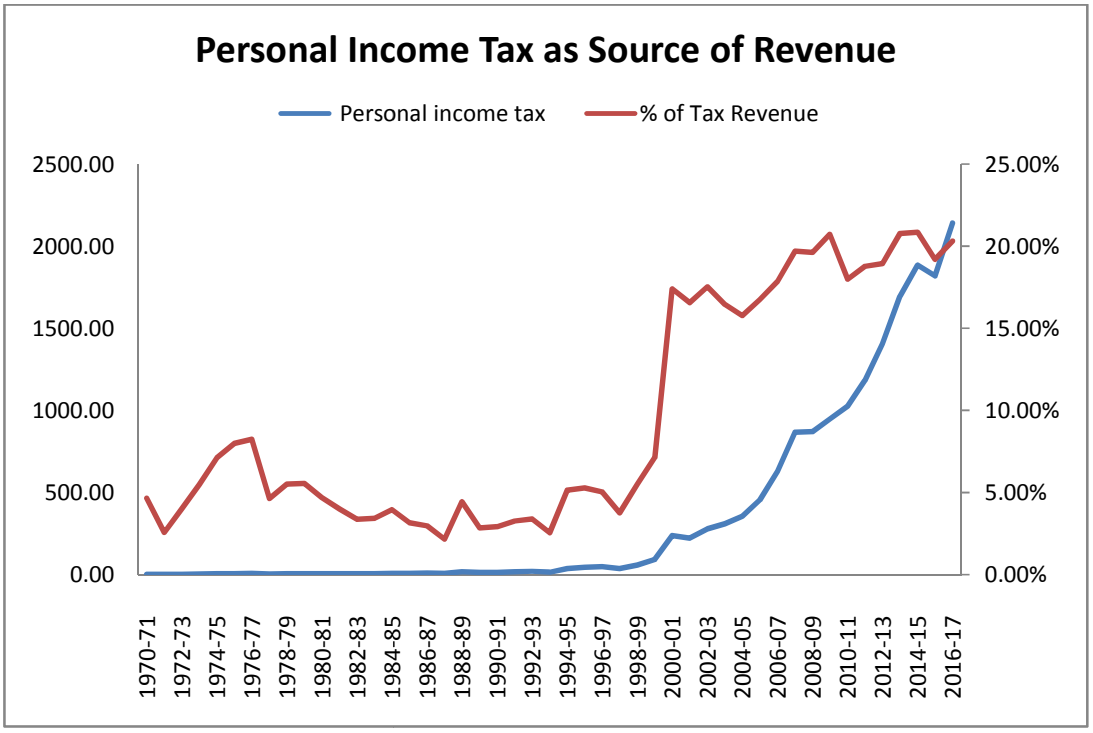
It is evident from the data that the share of during the year 1970-71 direct taxes contributed 74.43 percent of total revenue receipts of the central government while indirect taxes contributed 25.57 percent. The share of both direct and indirect taxes in total revenue receipts of the central government has been fluctuating in very narrow range. The period 2011-12 to 2014-15 are worth mentioning as the share of direct taxes in total revenue receipts has reached record level of more than 80 percent where as the share of indirect taxes has reached record lower level of less than 20 percent.

During the year 2012-13 direct taxes contributed 84.38 percent total revenue receipts of the central government whereas indirect taxes contributed 15.62 percent. Further it is worth mentioning that the difference between the share of direct taxes and indirect taxes to total revenue receipts has been widening since 2000-01.

Income tax

Income tax is one of the major sources of revenue for the central government. Income tax is part of direct tax and is levied on the income of an individual and HUF. The detail analysis of personal income tax as a source of revenue of the central government and its share in total tax revenue is presented in table and graph below.

Personal Income Tax As Share Of Total Tax Revenue					
Year	**Personal income tax (Billion Rs)**	**% of Tax Revenue**	**Year**	**Personal income tax (Billion Rs)**	**% of Tax Revenue**
1970-71	1.14	4.65%	1994-95	34.68	5.14%
1971-72	0.75	2.56%	1995-96	43.18	5.27%
1972-73	1.37	3.98%	1996-97	47.15	5.03%
1973-74	2.13	5.46%	1997-98	35.89	3.75%
1974-75	3.62	7.10%	1998-99	57.60	5.50%
1975-76	4.80	7.99%	1999-00	91.31	7.12%
1976-77	5.42	8.24%	2000-01	237.66	17.39%
1977-78	3.27	4.63%	2001-02	221.06	16.55%
1978-79	4.71	5.50%	2002-03	277.79	17.52%
1979-80	4.75	5.54%	2003-04	307.65	16.45%
1980-81	4.38	4.68%	2004-05	354.43	15.77%
1981-82	4.59	3.98%	2005-06	452.38	16.74%
1982-83	4.38	3.36%	2006-07	627.07	17.86%
1983-84	5.27	3.41%	2007-08	865.63	19.69%
1984-85	6.97	3.95%	2008-09	869.85	19.62%
1985-86	6.65	3.15%	2009-10	945.32	20.71%
1986-87	7.19	2.96%	2010-11	1024.41	17.98%
1987-88	6.03	2.15%	2011-12	1182.24	18.77%
1988-89	14.92	4.42%	2012-13	1404.38	18.93%
1989-90	10.88	2.84%	2013-14	1694.08	20.76%
1990-91	12.50	2.91%	2014-15	1883.36	20.84%
1991-92	16.27	3.25%	2015-16	1818.35	19.19%
1992-93	18.31	3.39%	2016-17	2140.33	20.30%
1993-94	13.55	2.54%			
https://dbie.rbi.org.in					



CAGR: Personal Income Tax	
Period	**CAGR**
1970-80	17.18%
1980-90	10.64%
1990-2000	24.73%
2000-2010	16.58%
2010-2017	13.07%

It can be seen from the data that during the year 1970-71 total Rs 1.14 billion were collected by central government as personal income tax which constitute 4.65 percent of total tax revenue of the central government. The total amount collected by way of personal income tax rose to Rs 91.31 billion which constituted 7.12 percent of total tax revenue during the year 1999-2000. The collection of personal income tax has recorded steady increases during the year 2000-01. Personal income tax revenue of the central government has reached to Rs 237.66 billion during 2000-01 which was 17.39 percent of total tax revenue. Since then personal income tax revenue of the central government has been increasing continuously reaching Rs 2140.33 billion during 2016-17 constituting 20.30 percent of total tax revenue of the central government.

The data about decadal CAGR for personal income tax as presented in table above shows that central government revenue from personal income tax has increased by 17.18 percent during 1970-80 which increased to 24.73 percent during 1990-2000 but declined thereafter to 16.58 percent during 2000-10 reaching 13.07 percent during recent period i.e. 2010-2017.

Conclusion:

Since 1970-71 the structure of tax and non tax revenue of the central government has undergone a change. The amount of tax revenue has increased but the growth rate in tax revenue has actually declined. During pre liberalization ear, direct tax was contributing nearly 20 percent to total tax revenue while 80 percent was contributed by indirect tax. But scenario change after new economic policies. Post liberalization ear, the share of direct tax to total tax revenue has registered a sharp increase while that of indirect tax stated declining till 2006-07 where their contribution turns equal and the share of direct tax have remained more than that of indirect tax after 2006-07. The contribution of income tax to total tax revenue of the central government which was less than 5 percent during 1970-71 has increased to more than 20 percent currently.

References:

1. www.rbi.org
2. Economic Survey, Ministry of Finance, Government of India
3. www.indiabudget.nic.in
4. www.finmin.nic.in/
5. https://dbie.rbi.org.in
6. Handbook of Statistics on Indian Economy, Reserve Bank of India