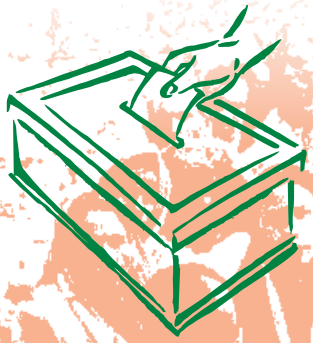
JOURNAL OF GOVERNANCE & PUBLIC POLICY

Volume 7, No 2, July-December 2017

ISSN 2231-0924



Indexed in:

- UGC list of Journals
- Ebsco Database
- Ulrichsweb
- Proquest

INSTITUTE OF PUBLIC ENTERPRISE

Aims and Scope

Journal of Governance & Public Policy is a bi-annual refereed journal published by the Institute of Public Enterprise to provide a forum for discussion and exchange of ideas on Governance (local to global) and Public Policy (including foreign policy and international relations) by policy makers, practitioners and academicians.

Published by: Satyam N Kandula on behalf of Institute of Public Enterprise

Owned by: Institute of Public Enterprise

Printed by: Satyam N Kandula on behalf of Institute of Public Enterprise

Printed at: Wide Reach Advertising Pvt Ltd, 21, Surya Enclave, Trimulgherry, Hyderabad - 500015.

Place of Publication: Institute of Public Enterprise, OU Campus, Hyderabad - 500007.

We thank Indian Council of Social Science Research (ICSSR) for Financial Assistance for Publication of the Journal.

INSTITUTE OF PUBLIC ENTERPRISE

EDITORIAL BOARD

INSTITUTE OF PUBLIC ENTERPRISE

Guidelines for Authors

The article should be in English language, British style. For spelling, grammar and syntax, the Oxford Dictionary and HW Fowler's Dictionary of Modern English Usage are to be followed. The suggested length is 5,000 to 8,000 words. The article should be typed in double space on only one side of A-4 size paper and sent in hard copy and also by email in MS Word format.

An abstract, not exceeding 300 words, typed on a separate sheet should accompany the article.

Three / four Keywords should also be given to facilitate Internet access. These should be placed immediately below the abstract.

Please include a resume of the author(s) in about 10 lines for inclusion in the section entitled 'About the Authors'. This should include the latest designation, a bit about the academic and professional experience relevant to the article, complete postal address and email. The Telephone number(s) may also be furnished.

Articles sent for publication are processed through a blind referral system by experts in the subject areas.

Levels of Headings

The title of the article should be in capitals, bold letters, and placed in the centre of the page, as indicated below:

GLOBALISATION AND LOCAL GOVERNMENT

The article should be divided into Sections and Subsections as may be appropriate. Section headings should be in capitals, smaller font, bold letters, and placed in the centre of the page, as indicated below:

IMPACT OF GLOBALISATION

Subsection headings should be in regular alphabet, smaller font, bold letters, and placed in line with the text on the left side margin, as indicated below:

Implications for India

If there is need to have further division of the subsection, the heading should be in regular alphabet, same size font, bold letters, and placed at the beginning of the first paragraph of the subsection concerned, as indicated below:

Challenges Involved Text of the article to be continued normally.

Do not use 1.2, 4.3 style of shoulder headings

References

References should be embedded in the text as follows: (Laski 1960:19). If more than one reference is to be given, they should be first in alphabetical and then in chronological order, as follows: (Babu 2006:51; Rosenau 2006:29; Wagner 1960:34).

Footnotes should be used only for explanation or relevant comment; and should be kept to the minimum; placed at the bottom on the corresponding page; and numbered sequentially.

A consolidated list of all books, articles, theses, monographs, documents and all other materials referred to should be typed in double space and placed at the end of the article. They should be listed in alphabetical order by the author's last name followed by the first name or initials, etc., as used by the author. If, there are two or more references to the same author, they should be placed in chronological order with the latest first and so on.

The detailed style of referencing is as follows:

For books

Laski, Harold J. 1960 Grammar of Politics, London: Allen and Unwin

For articles in periodicals

Laski, Harold J. 1954. "Political Parties in England," Political Studies, Vol. 56, no.4, pp: 29-44

For chapters in an edited book

Rosenau, James N. 1988. "New Dimensions of Security: Turbulence in International Politics," in George Ross, ed. Security in a Globalising World, New York: Macmillan

For article in a newspaper

Subramanyam, K. 2008. "India Has No Nuclear Strategy," Times of India, September 6, p.11

Tables and diagrams

All tables, diagrams and other graphics must give the source(s) in full (as in footnotes) immediately below the concerned table/diagram.

Articles should be sent to:
The Editor
Journal of Governance & Public Policy
Institute of Public Enterprise
OU Campus, Hyderabad - 500007, Telangana, India. Ph: +91-40-27098145/9378/9379, Fax: +91-40-27095183
E-mail: editorgpp@ipeindia.org, Website: www.ipeindia.org

CONTENTS

Call for Articles

Journal of Governance & Public Policy welcomes original, theoretical and empirical research articles and case studies, etc.

Our areas of interest include issues like policy formulation and implementation, governance challenges and reforms, transparency, accountability, issues of service delivery, public-private partnership, and New Public Management, corruption, digital governance and information technology.

Book Reviews are also an important constituent of the Journal.

Dialogue / Debate

The Journal invites readers to raise issues, offer comments and criticism, and suggest ways and means of enhancing implementation and performance at all levels of governance. Please send your responses to the particular article(s) in not more than 1000 words, which will be published in the next issue of the Journal along with the author's rejoinder(s), as per the usual editorial discretion.

For further details please write to the Editor at editorgpp@ipeindia.org or check the IPE website www.ipeindia.org

The Editor

Journal of Governance & Public Policy
Institute of Public Enterprise
OU Campus, Hyderabad - 500007

JGPP Journal of Governance & Public Policy
ISSN 2231-0924 Volume 7, No 2, July-December 2017 pp.1-7

A Web-Based E-Tool for Monitoring Urban Water Supply System

Ramakrishna Nallathiga* and **Maadhavi Sriram****

Water supply is an important function of urban local governments in cities. The cities organize and collect water supply information so that they can check whether the water supply service is as planned and as assured of delivery. However, monitoring water supply across the cities in a State is difficult task as they are far from each other as well as district and state headquarters. It takes several days and weeks by the time the information reaches headquarters. This can at times result in a difficulty in water supply planning, especially sourcing schedule of water during summer, as well as exercise controls in the outbreak of water borne diseases. A web-based system can reduce the shortfalls of such manual monitoring and can give quick but cheap data to the users at headquarters for appropriate decision making. This paper show cases the features of one such web-based monitoring system for water supply designed for Andhra Pradesh that can be used to generate the MIS for the headquarters for the decisions on water resource planning, reservoir/storage outflow scheduling and control of water quality (physical and bacteriological). It can be observed that the e-tool of web-based monitoring system gives information useful to planners, decision makers, researchers and operations personnel. This potential of such e-tool can be tapped when it is made fully functional and used regularly by the concerned departments for the routine as well as non-routine decisions and planning.

Keywords

Urban Water Supply, MIS, Water Supply Service, E-Tool and Monitoring System

Introduction

Water supply in cities an important function of urban local governments in India. The organization of urban water supply service is different among different Indian states. This differential system of water supply service operates such that the bulk water supply infrastructure e.g., treatment plants, reservoirs, storage tankers, large pipelines etc, are laid down by the Public Health Engineering (PHE) departments of the State governments. The PHE departments have engineering manpower and machinery to be able to undertake these jobs. The management – operation and maintenance – of water supply system is taken care by the Urban Local Bodies (ULBs), which run the cities. Therefore, the cities are first points of service that organize and collect water supply information so that they can check whether the water supply service is as planned and as assured of delivery.

However, monitoring water supply across the cities in a State is difficult task as the data is mostly stored in paper files, copies of which are sent to concerned officers that the ULB reports. Monitoring is also difficult because the ULBs are far from each other as well as district and state headquarters. It takes several days and weeks by the time the information reaches headquarters. This can at times result in

* Associate Professor, National Institute of Construction Management and Research, Pune and can be reached at: nramakrishna@nicmar.ac.in

** e-Project Manager, e-Development Cell, Centre for Good Governance, Hyderabad and can be reached at:

a difficulty in water supply planning, especially sourcing schedule of water during summer, as well as exercise controls in the outbreak of water borne diseases. Further, the headquarters can also plan the development of infrastructure in various parts of the State only when the information on gaps available.

With the advent of internet, web-based systems are providing solution to such gap in monitoring operations and data at remote end. A web-based system can reduce the shortfalls of such manual monitoring and can give quick but cheap data to the users at headquarters for appropriate decision making. This paper show cases the features of one such web-based monitoring system for water supply designed for Andhra Pradesh that can be used to generate the MIS for the headquarters for the decisions on water resource planning, reservoir/storage outflow scheduling and control of water quality (physical and bacteriological). It can be observed that the e-tool of web-based monitoring system gives information useful to planners, decision makers, researchers and operations personnel. This potential of such e-tool can be tapped when it is made fully functional and used regularly by the concerned departments for the routine as well as non-routine decisions and planning.

Need of UWSIS

Urban Water Supply Information System (UWSIS) is a monitoring tool to track the Water Supply positions across the municipalities in the State of Andhra Pradesh. This application is an MIS (Management Information System) application that was created so as to facilitate monitoring of all water supply in all urban local bodies (ULBs) in the State. Currently, there are 110 Municipalities and 12 Municipal Corporations in the state. This e-tool was primarily developed for the use of the Public Health Engineering (PHE) department officials of the Government of Andhra Pradesh. The Public Health Engineering department is currently doing the monitoring in a way that is not useful to planning and preventive action, for which more of real time data is required.

The PHE department would use this application extensively and reports generated from this application, so that they are used for planning, budgeting, and monitoring the daily water supply in the ULBs. The need for this has arisen in the wake of delays in data collection from various ULBs to the headquarters of PHE after channeling through various offices. The delays in data compilation at headquarters result in an appropriate action or response planning from the headquarters to be implemented by ULBs. For timely action of water supply planning, real time data is very much required. The major application of such real time data in water supply planning in ULBs is in knowing the major problems of water supply in any ULB and identifying appropriate solution for addressing the problem e.g.,

- Water supply reservoir operations / supply
- Water storage and treatment operations
- Water distribution system issues such that of service reservoirs, pipelines etc
- Alternate Water supply arrangements e.g., tankers
- Water quality control
- Water works at various points
- Appropriate action at the times of diseases / droughts / epidemics

The scope of this paper is to explain the features of Urban Water Supply Information System developed for monitoring the daily water supply in all the 110 Municipalities and 12 Municipal Corporations of the state of Andhra Pradesh. The major stakeholders of this application are:

- Engineer-in-Chief(ENC)
- Chief Engineer (CE-PH)
- Deputy Chief Engineer (DCE-PH)
- Superintending Engineer (SE-PH)
- Executive Engineer (EE-PH)
- Urban Local Bodies (ULBs)

Hardware, Software and Data Generation

Hardware & Software Requirements

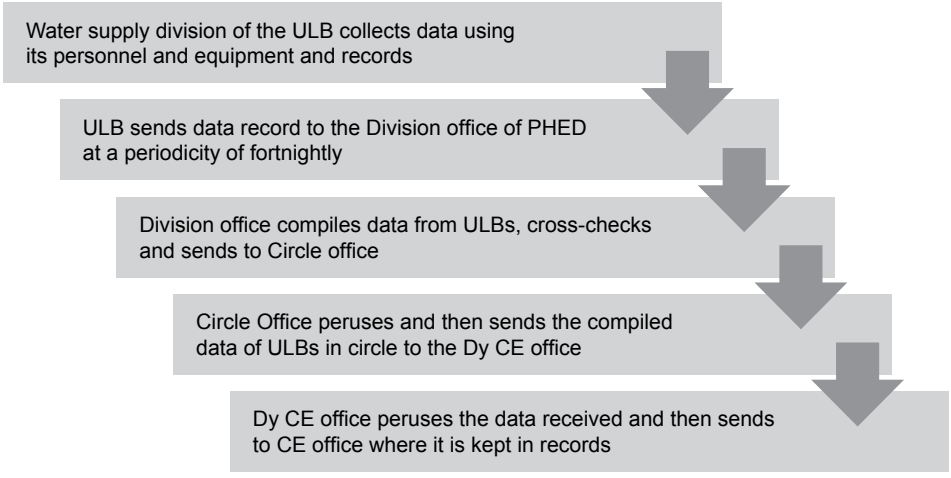
The system works through a network of computers and software application developed. Desktop PC systems are required with an internet facility in LAN/ individual connection environment. Browsers like Internet Explorer, Mozilla Firefox etc are required to be installed so that the application can be run online and access is made to the data base. They also need to be loaded with appropriate operating system and other support software so that the web applications can be run without any problem.

In order to access the application, type the URL Address of the UWSIS application – http://uwsis.cgg.gov.in – in the address bar of an internet browser. The application system appears on screen with an option of entering it. One needs to type the Username and password to access the application.

Data Generation and Transfer Process

The ULBs are the first points of data generation, which they do on regular basis with the help of personnel and equipment deployed fro the same. The periodicity of reporting of data depends upon the specific parameter of water supply system. The data recorded at the ULB level is transferred to the headquarters on a fortnightly basis. Figure 1 shows the data generation and transmission process of water supply from a ULB to the headquarters.

Figure 1: Data Generation and Transfer Process of Water Supply



The data base comprises of daily Status of:

- Water Supply
- Bore Wells
- Summer Storage Tanks
- Water Tankers
- Pipe Lines
- Quality Testing
- Power Failures
- Water borne Diseases

Work Flow of the Application

Based on the data generation process and key stakeholders involved, the classification of the stake holder/user roles are assumed as given in the following table.

Table 1: User Roles and Privileges in Urban Water supply information system

Figure 2: Login Screen of application

User/Role	***Activities/Privileges***
Engineer-in-Chief(PH)	User can view the consolidated summary reports. **Reports:** 1) Status of Drinking Water Supply (Main Report) 2) Status of Daily Water Supply (Surface) 3) Status of Daily Water Supply (Bore wells) 4) Status of Bore wells 5) Status of Pipelines 6) Frequency of Supply 7) Transportation of Water 8) Status of Quality Testing 9) Status of Water Borne Diseases 10) Period of Sustainability 11) Daily Data Entry Status 12) Abstract Report on Drinking Water Supply Status 13) Canal Systems Report 14) List Of Users
Deputy Chief Engineer(PH)	User can view the consolidated summary reports.
Circle (SE-PH)	Circle Level User can review the reports and update Daily Water supply status of all ULB's under the particular circle
Division	Division Level User can review reports and update Daily Water supply status of all ULBs under the particular Division
Urban Local Body	ULB level user can enter all required Masters and Daily Water Supply Status information **Masters:** 1) Basic Data Details 2) Summer Storage Tanks Details 3) Bore well Details 4) Pumping Stations Details **Daily Status Transaction:** 1) Water Supply Daily Status 2) Bore Well Daily Status 3) SS Tanks Daily Status 4) Tankers Daily Status 5) Pipe Lines Daily Status 6) Quality Testing Daily Status 7) Power Failures Daily Status 8) Water Born Diseases Daily Status

Once the user inputs user name and password in the specific fields and then clicks on the "Login" button, the system first checks if the login id and password typed by the user are matched with the provided one, then the respective functionary form will be open or else it will display the error message

like “Invalid Username or Password.” For security reasons, the password entered by the user will displayed in terms of special characters like ‘*’. After entering the username and password, the user has to click on Login button, to access the services provided to the user. For example, for the Circle office user, the following screen will be displayed with welcome message (Figure 3).

Figure 3 Welcome screen of application

Different users will get an access to different levels of data and different access rights. Depending upon the User id and password the respective functionary’s window will be opened with the privileged services of the user. For the ULB, the screen that appears gives the complete details that can be input by it in corresponding field. A screen is divided into Menu, Sub Menu and Data Display Frame. The following figure 4 illustrates the same of a sample screen…

Figure 4: Data Screen of Application

The top panel of the screen is the "**Main Menu**". The items of the Main menu are Daily Status, Reports, Change Password and Logout.

Monitoring and Report Generation

Daily Status

User can review and update daily status details on every day against selected date. List of daily status screen are as follows…

A. Water Supply Daily Status
B. Bore wells Daily Status
C. SS Tanks Daily Status
D. Tankers Daily Status
E. Pipelines Daily Status
F. Quality Testing Daily Status
G. Power Failures
H. Water Borne Diseases

For example, to check the Water Supply Daily Status, click on the Water Supply Daily Status screen, user can view and update the status of the Water supply details.

Reports

User can view the consolidated summary reports of one ULB or some or all ULBs depending upon the requirement. For example, if the user wants a Daily Status Report, the system gives a Daily Status Report comprising of the following reports under it:

1. Status of Drinking Water Supply (Main Report)
2. Status of Daily Water Supply (Surface)
3. Status of Daily Water Supply (Bore wells)
4. Status of Bore wells
5. Status of Pipelines
6. Frequency of Supply
7. Transportation of Water
8. Status of Quality Testing
9. Status of Water Borne Diseases
10. Period of Sustainability
11. Daily Data Entry Status
12. Abstract Report on Drinking Water Supply Status

User can view above reports by selecting different dates, and click on the name of the report, as shown in the following figure 5.

Figure 5: Reports Screen of Application

Conclusion

The Urban Water Supply Information System (UWSIS) is a web-based monitoring system designed to aid the data monitoring and reports for the PHE department of GoAP. It has been installed and ULBs are inputting the data so that the monitoring and follow-up action is taken by the PHSE department e.g., planning, budgeting, course correction and right intervention. It is hoped that more such applications will enable the tasks of government and administration more easy and efficient.

Acknowledgments

This Paper was presented at National Conference on “Sustainable Water Resources Management (SWRM) 2013” organized by Centre for Advances in Water Resources Management, Birla Institute of Technology and Sciences (BITS), Hyderabad on April 5-6, 2013. The authors acknowledge useful feedback received from participants, especially of Prof A Wasan, BITS Hyderabad.

References

3i Network (2006). *India Infrastructure Report 2006*, New Delhi: Oxford University Press

CGG (2005). *e-Tools for Good Governance*, Centre for Good Governance, Hyderabad

JGPP Journal of Governance & Public Policy
ISSN 2231-0924 Volume 7, No 2, July-December 2017 pp.8-21

Demographic Dividend and Political Branding: The New-Age Amalgamation in Indian Politics

Amit Kumar* and **Somesh Dhamija****

Indian politics is going through a phase of major change. The combinations which have arose in the past few years, especially after the last general election, have made the psephologists take note of various trends, most noticeable among them being demographic in nature, which have shaped up hence. The Indian population is the youngest in the world (two-thirds of it is below 35 years of age) and have been at the helm of political choices. Apart from it, another phenomenon which has taken Indian political scene by storm is that of political branding which projects political parties and leaders on the lines of brands. This research paper is an attempt with regard to exploring the twin phenomena of demographic dividend and political branding in the Indian realms and how one leads to the other. This study would be of seminal importance to those who intend to view politics from a different angle.

Keywords

Demographic Dividend, Politics, Branding, Political Branding, Election

Introduction

The Indian demography has come to be associated with a lot of seminal changes in the past few years. Something which was seen as a liability (population explosion) in the past has turned into an asset for the country due to variety of reasons. India is home to the youngest population in the world. Not only this, two-third of it is below the age bracket of 35 years (The NY Times, April 17, 2014)*. Google analytics and other leading research firms focus on the age-group of 18-35 years for the reason that it is high on its aspiration value, upwardly mobile, trend-setter and possess characteristics which make it ideal for the demographic dividend aspect. Additionally, almost half of the population of the country of 1.3 billion is less than 25 years of age (The NY Times, April 17, 2014)*. The youth belonging to this age bracket of 18-25 years is of prime focus when one talks about reaping the demographic dividend, especially in the context of a political exercise like a General Election where the first-time voters, as well as those who are active on social networks, have a huge influence on the outcome, traits which characterize this age-bracket.

In the present global scenario when such developed nations like Japan and most of the European nations are witnessing ageing as well as decline of their respective population, the above-mentioned population characteristics have added much credence to the claim of India of being one of the few promising countries in the near future as far as this aspect of demographic is concerned thanks to the youth phenomenon which has come to be associated with more than half of her population.

* Assistant Professor, Institute of Business Management, GLA University, Mathura, UP and can be reached at: amit.kumar@gla.ac.in
** Head-Management (UG), Institute of Business Management, GLA University, Mathura, UP, and can be reached at: somesh.dhamija@gla.ac.in

To be labeled as one of the fastest growing economies in the world, amidst either decelerating or stagnating/near-zero growth reports in majority of the nations is a big feat achieved by India. When one talks about the economic growth as witnessed by the world, the once-shining examples of the BRICS fairytale: Brazil, Russia and S Africa, lie in a shambles. Even developed nations across the world, Japan, USA, Germany, UK, Australia, South Korea don't paint a very reassuring picture either. India, along with China (6.9%, the weakest since 1990), remain the few promising big nations which essentially drove the economic growth. India is poised to grow at around 7.6% p.a. in the current fiscal year. It grew by 7.8% in 2015. This is in sharp contrast to times when Chinese economy was zooming by clocking double-digit growth rates for a number of years whereas India economy trailed her. Not anymore. Along with the economic growth, the tag of being the 'youngest' nation in the world (approximately half of India's 1.2 billion people are under the age of 26, and by 2020, it is forecast to be the youngest country in the world, with a median age of 29, as per a report published by Thomson Reuters dated July 7, 2016) with the largest work-ready pool (how much employable this pool is another aspect and is beyond the scope of the present work) is something which makes for a compelling case for India, a really promising prospect to be hailed as the next force to reckon with as per a report published in The Hindu dated September 7, 2013, in the leading months to the General Election, India's working age population (15-64 years) stood at 63.4% of the total, as against just short of 60% in 2001. The numbers also showed that the 'dependency ratio' – the ratio of children (0-14) and the elderly (65-100) to those in the working age – shrunk further to 0.55. These numbers highlight the fact that amidst an ageing world, the Indian population is quite young and raring to go. "250 million people are set to join India's workforce by 2030. As a big chunk of the population shifts into the working age group, the offshoot of that is an increase in disposable incomes and conspicuous consumption. This is the most exciting aspect of India's demographic dividend," – observation of Sunil Devmurari, country manager for India at Euromonitor. This further proves the point that the Indian demographic dividend is about to get better with time and as mentioned elsewhere in the paper, would keep on adding value to the overall workforce of the country.

**The reason for using age-related data of 2014 here and elsewhere in the paper is that in the present study the authors would be focusing on the last General Election which took place in 2014.*

Last General Election and the Present Study: The Rationale

The last General Election which took place in 2014, to elect the Fifteenth Prime Minister and Sixteenth Lok Sabha, saw the formation of many trends which were historic for all the right reasons. These were unprecedented and deserve mentioning for the reason that they redefined the way in which politics had been viewed in the country. The rise of individual-driven politics (on the lines of the USA), as against the party-driven model which had been the norm until then, was a major characteristic of the last General Election. There have been instances in past in the Indian political scenario when a state or local-level election had been fought and won riding on individual charisma but it was for the first time in a while that the 'candidate' took precedence over the 'party' at the national-level so much so that it transcended successfully as much over inner-party differences as it did with outer resistance. All this was done methodically, in a planned manner and not in the spur of the moment, the characteristics of a successful brand.

Many psephologists and experts observed that the campaign style of brand Modi resembled, to a great extent, to that of brand Obama, which in its own regard was huge success first in 2008 and then again in 2012. It relied heavily on the usage of social media to develop an 'instant' connect with the net-savvy Indian populace. This has much to do with the second-largest internet-using population, only behind China (in 2014, it was the third-largest trailing China and USA) and the 'always-on', 'great leveler' aspect of internet which have brought the politicians closer to the voters than ever before. While

brand Modi was able to harness it smartly, the rival brands failed to do so. In fact, Narendra Modi is the second-most popular politician in the world trailing only Donald Trump, a feat which he achieved, and since then has maintained, during the lead-up to the General Election of 2014.

The authors have focused on this election exercise although it being more than three years since it happened for the simple reason that it was the biggest political exercise in the history of mankind which brought forth many trends and acted as the stepping stone for all the contending parties with regard to devising their future course of action. The emergence of the branded politician was much talked about and debated across platforms, questioning and responding to the various aspects of political branding and how it influenced the whole electoral exercise, specifically during the campaigning. The subsequent elections which took place for various state assemblies be it Haryana, Jammu & Kashmir and Jharkhand in 2014; Delhi and Bihar in 2015; Assam, Tamil Nadu, Kerala and West Bengal in 2016, Uttar Pradesh in 2017 as well as the upcoming elections in the key state of Gujarat in 2017 have been/ would be largely influenced by the outcome of the last General Election as it has acted as the reference point for the subsequent elections which have taken place since. The might of brand Modi was once again evident in the outcome of the Uttar Pradesh assembly election where BJP won a historic mandate riding on his charisma despite not naming a CM face and in the aftermath of the mammoth exercise of Demonetisation which his detractors believed dented his image in the state. Far from it, it strengthened and reinforced the same as was evident from the result.

**The authors would like to point out that only those assembly elections have been mentioned above which were influenced by the phenomenon of political branding (with brand Modi being at the helm of affairs) after the General Election of 2014 thereby highlighting its significance in the overall scheme of things.*

When one considers the statistics as related to the last General Election they were unprecedented and phenomenal. Some of them were: The largest-ever eligible electorate (834.1 million) and the highest-ever turnout (stood at almost 67% of the eligible electorate roughly translating into 550+ million voters, again an all-time high). This assumes even more significance when one considers that out of the 714 million eligible electorate in the 2009 General Election, only 57.6% turned up for voting. Hence the rise in voting percentage as recorded in the last General Election was almost 10% as compared to its predecessor (2009 election). When one considers the change in the vote share of BJP during these two elections, it stood at almost 12 percent more (from 19% to 31%), a figure commensurate with the rise in voting percentage. On the other hand, INC suffered a major blow as its voter share shrunk from 29% to 19% during the same period of time. What is of further significance here is the fact that BJP broke fresh grounds and added to its vote share in such states as Tamil Nadu, Bihar, J&K and Assam, winning more seats in the process than ever before, which were not known to be BJP-friendly states. As per an astute report published by The Hindu dated May 18, 2014; BJP got 64.7 million more votes than the party that came closest at the all-India level, the incumbent Congress party. With 172 million votes, the BJP more than doubled the number of votes it received in 2009. The winning party needed on average just over 6 lakh votes to win a seat; while the Congress needed over 24 lakh votes to deliver it one seat. The winning party's gain since 2009 was almost exactly what the Congress' loss was. The BJP's wins were comprehensive right down to the seat level. The party won only two seats by less than 5,000 votes and won 195 seats by over 1 lakh votes. The average BJP candidate won by over 1.69 lakh votes, a good 1 lakh higher than the victory margin of the average Congress candidate.[1]

All this could not be coincidence for sure. Further, as per the records of Election Commission of India and the above discussion, almost 100 million new voters were added to the electoral rolls in the last five years. However, if one sees the difference in absolute terms between the voter turnout of 2009 and

1 How the BJP won this election - The Hindu

2014 General Elections, it is more than 140 million. This was 40 million more than the newly-added voters. They were the voters who didn't vote in 2009 but did so in 2014. The reasons for the same could be many, the rise and rise of brand Modi in the past five years is definitely one of them. History-defying voting patterns and record turnouts were testimony to the same. It also led to the formation of a single-party majority government at the center for the first time in 30 years (last time it happened in 1984 when Congress won 400+ seats riding on the sympathy wave due to assassination of the-then Prime Minister Late Indira Gandhi. BJP, incidentally, was reduced to 2 seats at that election, its worst performance since formation).

Irony of the matter is that the verdict of 2014 reduced Indian National Congress (henceforth INC) to double-digit performance, the first time since General Elections happened in 1952, a debacle which the party has found hard to overcome since despite repeated attempts. Such was the plight of it that it didn't qualify to be recognized as the Party of Opposition at the Lower House as it lacked the Quorum (minimum number required for the same which is 10% of the total seats) as it won only 45 seats whereas the Quorum is 55 as the number of seats in Lok Sabha is 543 and was left at the mercy of the Speaker of the House for the same.

Further, it was also for the first time that a non-Congress party had formed a majority government on its own at the center since the first General Election. The amazing numbers don't stop there. The first-time voters who participated in the Lok Sabha election of 2014 were a staggering 140+ million, the highest-ever in Indian electoral history, as highlighted before. 23 million voters belonged to the 18-19 age-group bracket and 43,000+ of electorate in each of the 543 constituencies were registered from this age bracket, again an unprecedented number. To understand the significance of this number, one needs to know that percentage-wise it roughly translates into approx. fourteen percent of the eligible electorate, a number significant enough not to be overlooked by any party. In about 226 of the seats which went into polls, out of the 543 seats during the 2009 election, the victory difference was lesser than it (The Indian Express, Feb 26, 2014). Hence, any party or leader who understood well the fact that it is the first-time voters (as those in the age-group 18-19 were not eligible to vote in 2009) who will play the deciding role in almost 40% of the seats would have done well. As the results showed, it was brand Modi which harnessed this demographic dividend in the best possible manner than any other political brand. About one-fifth of the eligible electorate was in the 18-25 age bracket. Record number of female voters (260+ million, an all-time high) turned up for voting during the nine-phase election (more than 22 states recorded the highest-ever female voting rate). These are some of the numbers which made the last General Election worth observing in many ways. *All the above data have been taken from the archives of the Election Commission of India (otherwise stated if taken from somewhere else), the foremost authority for conducting elections in India. Election Commission of India. (2014) Archive of General Election 2014 Highlights.*

This research paper delves into such trends formed during the last General Election, in detail, along with putting up a case for political branding, a phenomenon explaining these trends (to a great extent). Political branding would also be explained during the course of this research paper as to how it has found place of prominence in the schematics of political parties and leaders. At the same time, it is to be exhorted that political branding is not a new thing as some might perceive. The western democracies such as USA, UK and Canada as well as Australia, New Zealand and Japan have been characterized by the successful usage of it by leaders as well as parties for the past few decades. The paper would further underline the aspect as to how political branding has come to be associated with the Indian political scenario, especially in the past few years and most prominently during the last General Election with the rise of brand Modi which negated the impact of all the rival brands.

Along with the above-mentioned traits of political branding, the research paper would also emphasize upon the concept of demographic dividend as to what it denotes and how a nation stands benefitted if

she harnesses it judiciously. Demographic dividend means many things to many people. In the context of this research paper, the age, income, dwelling (urban or rural) and gender aspects of it would be the highlight and more importantly how they have come to reshape the strategies of political parties in the recent past, most noticeably in the last General Election.

The concept of political branding has come to assume significance in the wake of technological advances being made and the prevalence of mobile telephony. One feature of such a development has been the presence of social networking, incessant and uninterrupted, which has brought the electorate closer to the leader and party than ever before. At the same time, the phenomenon of political branding has gained lot of credence thanks to the reinforcing effect which results from social networking. *The inter-connectedness between political branding and demographic dividend is at the core of this research paper.*

The Power of the Youth – A Formidable Vote Bank

The prominence of the youth segment with regard to deciding the next ruling party/combination was never as high as it was during the last General Election. As per a report published in The Nation dated October 19, 2014; as many as 90,000 voters of age 22 were not eligible to vote in the 2009 General Election in each of the 543 constituencies. This is no small number by any means and was well noticed by the two major parties BJP and INC. However, as was evident from the result of the General Election, only one of them was able to harness it to its liking.

When it comes to the major states of the country having a formidable youth base, ten of the largest states of the country (Bihar, Chhattisgarh, Uttar Pradesh, Assam, Jharkhand, Delhi, Rajasthan, Madhya Pradesh and Andhra Pradesh), with West Bengal being the only notable exception, saw its youth brigade giving its nod to the saffron party (namely BJP) or its allies which together formed the National Democratic Alliance (henceforth, NDA). The states which were home to an increased base of first-time voters were the states which saw an upswing in the vote share of BJP in 2014 as compared to its performance in 2009 thereby highlighting the ability of the BJP in terms of connecting with the first-time voters in a better way than any other political outfit. Further, brand Modi resonated in a much better way with the youth (and as an extension with the first-time voters) thanks to its tech-savvy image and the agenda of development, growth and employment opportunities which was a welcome change over rhetoric and empty promises in the past (to what extent these promises were fulfilled is another aspect and beyond the scope of the present work). On the other hand, the ageing states of Tamil Nadu and Kerala were successful in warding off the effect of Modi wave, as reported by The Hindu, the formidable South-based newspaper thereby giving a distinct impression about the core supporter base of brand Modi and those who were not much impressed by it.

To further gauge the significance of the youth brigade, one needs not look beyond the most-populous state of India, Uttar Pradesh, which also sends the highest number of MPs (80) to the Lok Sabha. In the General Election of 2014, 73 of the 80 seats (a whopping 90%) in the state were grabbed by BJP and its allies. Bahujan Samajwadi Party, the party with the third-largest vote-share (4.19%) in the country after BJP (31%) and INC (20%), failed to win even a single seat giving a fair idea of the impact of brand Modi which prevented the BSP-candidates to win even a single seat despite putting up above-average performances (33 of its candidates finished second in the 80 seats). Five seats were won by Samajwadi Party, all of them being strongholds of the party, sending one or the other member of the extended family of party supremo Mulayam Singh Yadav to the Lok Sabha, a fact which saddened party supremo so much that he openly proclaimed, 'With whom I am going to seat in the Lok Sabha?'. Two seats were won INC, one by the party Supremo and Leader of the United Progressive Alliance (henceforth UPA), Sonia Gandhi and the other by Rahul Gandhi, the party vice-president. The same got repeated during the state assembly election of 2017 when BJP got 325 seats out of 403 seats, much

more than the 202 needed for a simple majority and a massive change from its tally of 47 which it got in 2012. The incumbent Samajwadi Party had to content itself with a mere 54 seats, a far cry from 224 seats it got in 2012.

Now coming to the youth angle of the electorate of the state which stood at 12.9 crores in its entirety out of which 2.3 crore (or 17.6%) were of 18 years of age when the election happened, a significant number indeed. To understand the magnitude of loss suffered by the rivals of BJP, BSP was reduced to zero from its tally of 21 seats in the 2009 election. (rediff.com, May 17, 2014). To understand the drastic change in the fortune of BJP in the state, it came fourth in the 2009 General Election (having won only 10 of the 80 seats), trailing even INC (firstpost.com, May 16, 2014). It does take a miracle to go from 10 to 73 within a short span of 5 years in one of the most caste and community-driven states of India and it came in the form of galvanizing force of brand Modi. The same got repeated in the assembly election of 2017. *All these data have been taken from the archives of the Election Commission of India (otherwise stated if taken from somewhere else), the foremost authority for conducting elections in India. Election Commission of India. (2014) Archive of General Election 2014 Highlights.*

150+ million eligible electorate were first-time voters, aged between 18-23 years. To understand how big that number was, none of the contesting alliances were able to muster a vote share of this magnitude in the General Election of 2009 (livemint.com, Jan 30, 2014). This proves the tectonic shift which occurred due to the participation of the youth in an unprecedented manner during the last General Election.

What makes this even more significant is the fact that in such countries like USA, which have been the flag-bearers of democracies, the youth have shown a downward trend with regard to the political exercises like elections and the Presidential Election of 2016 was no exception to the same. When asked about their disinterest in this regard, they have highlighted that the choice of nominees on part of both the principal parties, namely the Republicans which fielded the eccentric billionaire Donald J. Trump, who eventually went on to become the next President, more famous for his ranting than his policies, and the Democrats who went forward with Hillary R. Clinton, who was in the news far more for such things as the e-mail scandal and her deteriorating health than her agenda, failed to cut ice with them.

The election of 2014 might have seen the peak in terms of first-time voters influencing the final outcome. This has much do with the changes which are happening in India demography-wise. The fertility rates are not what they used to be, especially in the southern states (as highlighted earlier in the paper, the states of Tamil Nadu and Kerala are the 'ageing' ones). The first-time voters, who made 10% of the electors, resulted in a demographic dividend which India might not witness anytime soon. As fertility falls faster in urban areas, rural India is younger than urban India; while 51.73% of rural Indians are under the age of 24, 45.9% of urban Indians are under 24. However urban India still has a higher proportion in the key 15-24 age group than rural India. India, as expected, is not getting any younger. India's median age has risen from around 22 years in 2001 to over 24 years in 2011, as per The Hindu's calculations. Overall, India has 472 million people under the age of 18, and 49.91% of its population is under the age of 24.

It is in this regard that the last General Election assumes significance because apparently it was the unanimous choice of Narendra Modi by the principal ally of NDA, namely BJP, for the post of PM and his timely and popular projection that led to the landslide victory for the party and alliance. The detractors might argue that it was more of an anti-incumbency effect rather than the Modi wave which ultimately led to the undoing of the INC-led UPA regime, the demographic data and the political branding aspect of the last General Election do make for a compelling reason for the effectiveness of brand Modi over and above its rival brands. Also, there is this very pertinent observation made by Mr Sanjay Kumar, Director of the Centre for the Study of Developing Societies (CSDS), who has

observed as follows - “I don’t know how this idea that high turnout is associated with anti-incumbency has persisted from generation to generation,” he says. “This relationship has never existed.” To prove his point, he puts forth his observation in which he mentions the case of the last 30 state-level elections, 24 of which witnessed better turnouts. What’s interesting here is the fact that 12 of these states sent the incumbents again to the office whereas an equal number (12) brought new party in office. Hence, there is no conclusive finding which supports the statement that it was anti-incumbency, more than anything else, which brought BJP to power.

Other Demographic Indicators and the 2014 General Election

As per a report published by the Newstatesman dated November 17, 2011 concerning the urban versus rural divide, another important demographic indicator with regard to the population of a country; those living in the countryside of India stood at an all-time low of 69.9% as in 2010 against a high of 82.1% of 1960. This highlights the continuous shift of rural population towards the cities. Simultaneously, the urban population has undergone drastic change during the same time period from a low of 17.9% to an all-time high of 30.1%. This is by no means an insignificant development and certainly played a role in the General Election of 2014. It was observed that the BJP-led NDA did better than its rivals in the urban constituencies and the rise of social media played an important role in the same. Also, city-dwellers are better connected on internet than their rural counterparts. As per a report published by the Internet and Mobile Association of India (IAMAI), dated October 4, 2013; based on a survey conducted along with a leading research agency IMRB in the lead up to the election of 2014, 4 out of 10 urban voters were active on social media. The report further stated that as many as 30% of the total seats in the 2014 Lok Sabha election could have been influenced by the social networking phenomenon. Though the effectiveness of the same was questioned by the naysayers who were not convinced by the impact facebook, twitter, etc. could have had on the outcome of an election, this was utilized by BJP better than any other party. Its PM-nominee Narendra Modi connected with the urban youth through facebook, twitter and youtube in a major way, in the process becoming the second-most followed and socially active political figure globally bettered only by brand Obama, the pioneer of using social networking towards building a political brand as done famously during the US Presidential elections of 2008 and then again 2012.

Another significant demographic factor which caught the attention of the political analysts with regard to its influence on the outcome of the General Election was the income factor, more specifically the middle class of the population. As per a report published by India’s largest-read English Daily The Times of India dated November 23, 2013; the Indian middle class, which was hardly paid any heed by the political outfits till recently, was suddenly at the center of attention for all the political parties and this was not without a reason. The Indian middle class (anyone earning in the range of Rs 10-100k a month) stood at a measly 25 million in 1996, an impressive 160 million in 2013 and 267 million in 2015. These are no small numbers, especially the 2013 figure as this was precisely the time when the political parties and leaders were gearing up for the General Election and these numbers gave them a reason to woo the middle class unlike the previous instances as it had reached a mass which was no longer to the ignored. Majority of this middle class was urban in dwelling thereby giving another upper hand to BJP-led NDA over its rivals.

Next the gender aspect of demography is to be considered as a part of this research paper which played a prominent role in the formation of the next government at the centre during the nine-phase election of 2014. More than 22 states witnessed an increased participation of women during the election. The striking feature about this election was that 140 million more voters turned up to vote as compared to the corresponding figures for the 2009 General Election as against the 100 million addition to the eligible electorate in the past five years. This additional 40 million were either youth or female or both.

As highlighted previously in the paper, 260+ million female electorate exercised their franchisee in 2014, again an all-time high.

Demographic Dividend: The Phenomenon

As per the United Nations Population Fund (UNFPA), demographic dividend is "the economic growth potential that can result from shifts in a population's age structure, mainly when the share of the working-age population (15 to 64) is larger than the non-working-age share of the population (14 and younger, and 65 and older)." In other words, it is "a boost in economic productivity that occurs when there are growing numbers of people in the workforce relative to the number of dependents." UNFPA states that, "A country with both increasing numbers of young people and declining fertility has the potential to reap a demographic dividend". (Wikipedia.org/wiki/demographic_dividend). The gap which exists between the old and young has the potential to skew the workforce balance. It is in this context that India stands 'gifted' over other nations. Here it would be pertinent to point out that as per the census of 2011 (the last time when census happened), 120 million youngsters, in the age bracket of 15-18 years, didn't make the cut to vote in 2009 as they were too young. However, they became eligible for exercising their franchisee in 2014 thus making almost 14.5% of the eligible electorate (which stood at 834 million). To understand the significance of it, one needs to consider that the voter turnout stood at approx. 66.6% (550+ million) and the vote share difference between that of BJP (31%) and INC (19.3%) was around 11% (60 million approx.) which was not more than half of the number of first time-voters. Hence it becomes obvious that the winning chances rested with that party which captured the imagination of the first-time electorates better than the rest and as the result proved, it was the BJP which ticked that box riding on the charisma of brand Modi. This fact mentioned above regarding first-time voters represents the high of India's demographic dividend because of the dip in fertility and ageing of population. As per a report published by UN, those Indians in the age-bracket 15-19 hit a high in 2015 and it has already started declining in commensurate with the overall population of the country.

Due to the divide between young and old, many argue that there is a great potential for economic gains, which has been termed the "demographic gift". In a report published by United Nations around the same time frame when the last General Election happened (November 18, 2014), it was mentioned that 10-24 year olds in the country are 356 million in number. The report further said that by 2020, about two-third of Indian population would classify as the working-age population. This in itself is an impressive number and could very well be a deciding factor in terms of countries being benchmarked with regard to working population. Another observation as made by Boston Consulting Group is about the attractiveness of Indian labour market owing to its cheapness. Chinese manufacturing labor costs nearly four times as much, at an average of US$3.52 an hour, as it does in India, at 92 cents an hour for a company contemplating to set up plant in either of the two. PwC further observes that the working-age population averages at 39 years whereas it is 42 years in China. More importantly, it comments that in a span of 15 years, Indian workforce will overtake China and, in the process, will stay younger.

A working paper published by the International Monetary Fund in the year 2011 attributed the growth of India since the 1980s to the changing age dynamics. More importantly, it pointed that in the coming two decades, the demographic dividend, arising out of a young population, would add up to 2% per annum to the per capita GDP growth of the country. This data is another testimony to the fact that if harnessed properly, demographic dividend could go a long way in ensuring the successful planning and implementation of plans for growth.

When one talks about the role played by the youth during the last General Election, they turned up in droves and made their presence felt not only with regard to casting their votes but more importantly with regard to creating online awareness about the various political parties and leaders in the fray thereby giving new dimension to the term 'political participation' which was no longer restricted to voting alone

but also included such online activities which have gained prominence in the past few years. The 'new' voters amounted for almost ten percent of the population thus showcasing the peak of demographic dividend. As per a report published in Economic Times dated May 14, 2014; India's demographic dividend would peak in 2030 with a youth population of 430 million aged between 15 and 34 (of a total population of 1.5 billion). The first voters from this dividend generation began to vote in 2014.

Understanding Political Branding

Coming to the other important concept dealt with in this paper, political branding is the manifestation of the principles of branding, the most popular and commonly-used concept related to the domain of marketing. Traditionally, branding as a phenomenon has been associated with products. However, western thinkers have explored the utilization of its time-tested tenets in the paradigm of politics and have came up with their own explanation for the coming together of the two concepts, namely politics and branding. On the other hand are the puritans, the political scientists, who are not much convinced with the role which branding could play in the political affairs thereby, questioning the concept of political branding altogether.

Thinkers Williams (2000) and Clifton (2009) have been quite comprehensive with regard to defining what a brand is. As per them, anything which comes with a distinct identity thereby making it apparent to the potential users about their existence could be classified as brands. In this regard, politicians are no exception. A national political brand like Narendra Modi is very much distinctive from a brand like Rahul Gandhi or for that matter a regional political brand like the Late J Jayalalitha is more distinctive and there effective than other regional brands or even the national political brands (this explains the phenomenal success of AIADMK in terms of grabbing 37 out of the 40 seats in the last General Election as well as storming to power back again in the state election held this year. Her demise has left the party in disarray ever since).

Jevons (2005) is of the similar view as highlighted above. He opines that branding as a concept is quite a broad one and apart from the regular commodities could well accommodate such phenomenon like politics where the consumer-citizen is out there in the supermarket (political exercises such as election), shopping for the best (at least as per their own perception) product (political party or leader), buys (votes for) it based on the promises (manifesto) made by a specific brand.

Emotions play a crucial role in the area of branding thus leading to the concept of emotional branding and the same finds place of prominence in the field of politics. This phenomenon has been well deliberated upon by Dean, Croft, & Pich (2014) who are of the opinion that marketing has much to offer with regard to bringing to the forth emotional aspect of the political parties.

Then there is the cultural and social aspect related to brands which is of much relevance in the case of politicians, especially in countries like India where societal norms and cultural backgrounds play a significant role in terms of shaping the voting tendencies of electorate. In this regard, Chandler & Owen (2002) are of the view that brands, be it a product or a political leader, need to stay relevant to the socio-cultural paradigm thereby leading to the formation of a strong emotional connect. Further they talked about a charismatic leader always appeals to the conscience of voters better than their contemporaries.

Smith and French (2011) talk about an interesting aspect of branding which could be found in politics and has come to make its significance felt. The trait of simplicity which is characteristic of every powerful brand is best suited in the political arena what with the myriad choices which the electorate has (particularly in a country like India where 1800+ parties contested the last General Election as per the record of the Election Commission of India). Political brands help the voters to choose in an easier

way. This become possible due to the mental short-cuts known as heuristics which help the consumer-citizens to avoid any new learning and stick to their tried and tested choices. This does explain the vote-bank politics which Indian politicians and parties have come to be identified with based on the strong affiliations which they develop with a certain section of the society whom they couldn't rile understanding it well that upsetting them would lead to electoral losses.

Scammell (2007) is of the view that a political outfit or leader having a credible name adds to the branding aspect of it thus becoming an essential aspect in terms of differentiating one political brand from the other. This is gaining significance in the light of various public relation strategies which are being formed so as to ensure that political leaders are treated as brands in the domain of public appearances. Carefully crafted images are circulated thereby adding to the charisma and aura of the political brand. Scammell (2015) further adds that branding as a concept is a powerful tool to understand the various aspects of politics and as such could be applied to the same thereby creating such a strong proposition which, if followed judiciously, could lead to better performance of political entities provided their fundamentals are strong.

Lees Marshment (2009), one of the foremost authorities on political branding, ironically is not much convinced by the effectiveness which others have accorded to its phenomenon. She is of the view that political branding does help to create a differentiation among the competing politicians or parties but this solely could not help in standing out. Also, the differentiation aspect, as highlighted by her, doesn't do full justice to the phenomenon of political branding.

Needham (2006) talks about how the incumbent seeking reelection is akin to repeat sales. This is so because a political brand which has been in power for the past term has to deliver on the promises made during the campaign, through its manifesto. If it doesn't live up to the expectations of the voters, there wouldn't be any repeat buy, that is, reelection.

Thus, it becomes evident that politicians could be branded on the same lines as commodities. Also, branding a leader is easier than a party because a leader, on the virtue of their affiliation, represent the political outfit automatically. Plus, the mobility and universality which define the political leader are very much on line with being a brand. Globally, there have been such brands as brand Obama (in USA), brand Blair (in UK), brand Trudeau (in Canada), brand Merkel (in Germany), brand Abe (in Japan), brand Abbott (in Australia) and the likes. Closer home, brand Modi made its presence felt first as a regional political brand during his tenure as one of the longest-serving chief ministers (2001-2014) being elected four times in the process, to being successfully projected as a national political brand and the PM-in-waiting during the campaign of BJP-led NDA which successfully contested the last General Election winning 282 seats on its own riding on the charisma, humility, relatedness, experience, connectivity, image of brand Modi which triumphed over all the rival brands, national or regional. So strong was the Modi wave, that the BJP managed huge victories in states where contesting without allies has been unthinkable with the rise of regional parties, picking up 22 seats in Bihar despite going without its major former ally, the JD(U), and a huge tally in Uttar Pradesh despite going nearly solo. The Congress lost 37 seats between Tamil Nadu (brand Amma effect) and Andhra Pradesh (brand Modi and brand Chandrababu effect) alone, two states that it had done well in 2009. At the same time, there were such powerful regional political brands such as the Late J Jayalalitha in TamilNadu, Mamata Banerjee in West Bengal and Naveen Patnaik in Odisha who, despite the Modi juggernaut, held on their own and won majority of the Lok Sabha seats during the 2014 election. KC Rao of TRS (11) and Y S Jagan Reddy of YSR-Congress (9) too shared 20 seats between them without taking sides with either NDA or UPA.

Bringing Demographic Dividend and Political Branding Together

Based on the discussion above, explanations pertaining to demographic dividend and political branding and more importantly highlighting certain elements of the last General Election, it is not hard to understand the role played by the two phenomena in the rise of one political brand (brand Modi) over its rival brands.

Throughout the course of the research paper, the authors have brought to the fore the salient features as associated with demographic dividend and political branding and how thinkers, think-tanks and world organizations like IMF, UN have defined, explained and highlighted the various aspects related to the two core concepts.

What found prominence in this research paper is the fact that branding as a phenomenon has transcended in the arena of politics for quite some time now in the western democracies where it has been practiced by politicians for decades. However, the efficacy of the same in the Indian democratic perspective was felt during the last General Election in which brand Modi emerged victorious over others and that too handsomely.

The various demographic indicators, demographic dividend being most prominent among them, as discussed during the course of the paper were seen to have played a significant role during the last General Election. This research paper threw light on the various trends as formed during the nine-phase election and how they were linked, to a great extent, with the phenomenon of political branding. In this regard, the authors took up the instance of the upcoming USA Presidential election to highlight the listlessness among the voters in the absence of a strong political brand with whom they could relate with. Hence, they have largely abstained themselves from the various nomination conventions and expressed their unwillingness to turn up for voting in the oldest democracy of the world.

Contrasting this with the unprecedented turnout during the last General Election, the authors took into consideration the various facts which contributed towards the same, with specific focus being on demographic dividend and political branding. They talked about how the last General Election was unique and one-of-its-kind since the first General Election took place more than 60 years ago in 1952. The various trends, as summarized from the archives of the Election Commission of India related to this election, were more than enough to highlight how this election broke various precedents (one of it being the era of coalition politics which had been a regular feature in the past 20 years or so) and established some noticeable trends.

When talking about the phenomenon of political branding and the rise of brand Modi, the authors brought to the fore two significant aspects related to the outcome – first, the formation of a single-party majority government for the first time in the past 30 years and second, the more distinct of the two, formation of a majority non-Congress government at the centre for the first time since 1952. Thus, the role played by brand Modi could not be understated even by its detractors. To what extent brand Modi has been successful in terms of living up to the pre-poll hype and expectations of the electorate are beyond the scope of this research paper.

At the same time, it would be pertinent to highlight the findings of a recent survey conducted by Zee News on the completion of two years of governance of Modi Government in which more than 70% of those surveyed wanted him to be the PM till 2024 and more importantly almost two-third (64%) were happy with his way of working. His foreign junkets, which have come under criticism by the opposition, were mostly praised by the respondents as they believed that such meets have lifted the image of the country and brought foreign investments.

Another survey conducted by Pew Research Centre, one of the foremost authorities in conducting

research especially related to election-like political exercises (unlike majority of the experts, they rightly predicted a landslide victory for Modi in 2014. They have been accurately predicting the outcome of the US Presidential Election for the past two decades), and subsequently published on September 19, 2016; brand Modi has not lost its sheen in the past 2 years. An overwhelming 81% of Indians still hold a favourable view of Modi, including 57% who have a very favourable opinion of him. Just 16% of those surveyed aired negative views about him. Thus, one of the parameters of being a good brand, consistent performance, is very much visible in the case of brand Modi. Trust, which is the hallmark of every winning brand, is something which Indians still repose on brand Modi and expect it to deliver big time in the coming years. More importantly, he is seen very favourably across demographic groups (the point of discussion in the present paper) what with the following approval ratings among various demographic groups: men (61%), women (53%), age-group 18-34 (60%), 35-49 (58%), 50+ (53%), primary school or less (54%), secondary school (64%), some college or more (70%), urban (57%), rural (57%), BJP supporters (82%), INC supporters (24%). *The above mentioned ratings are of those who had a very favourable view about PM Modi.* As expected, he is seen favourably by 94% of BJP followers. What is surprising is the fact that even 61% of INC supporters have a favourable view about him. Notably, despite the Congress party's traditional strength in rural areas, Indians in cities and the countryside have a similarly positive assessment of the prime minister.

Thus, the charisma of brand Modi is still intact and the trust which the voters of this country have on it there as of now. At the same time, the recent controversies which have surrounded his government on various issues have raised question marks over his control on the day-to-day conduct of affairs by his ministers and workers. The recent cabinet reshuffling and his response on various issues have done damage control a bit but the next three years would be crucial and act as a litmus test for brand Modi. The upcoming state assembly elections in the most significant state of Uttar Pradesh (politically), which has given the highest number of Prime Ministers to the country including the current one (Narendra Modi is sitting MP from Varanasi after he gave up his Vadodara seat) and his home state of Gujarat in 2017 would pave the way for his 2019 bid for re-election which is akin to repurchase by the consumer-citizens in the wake of the past-performance of the political brand.

Concluding Remarks

To conclude, this research paper would be of value for those who intend to understand the concept of demographic dividend and how it is altering the way forward for countries like India where the youth factor is playing a crucial role in the overall scheme of things and would act as the differentiating factor between India and other countries as far as the working age-group is concerned in the terms to come.

Also, this research paper would be of significance in terms of understanding other demographic factors which influence a political exercise like election. This has been done in the present work by citing the various trends which formed during the last General Election of the country. The reader would understand how, when taken together, these demographic indicators could result in synergy affect thereby reinforcing the impact of each other and making the political parties and leaders understand the significance of each of them.

Further, the reader would gain insights into the phenomenon of political branding which would help them in terms of understanding politics from a different perspective and more importantly how it could be used for ensuring better performance by political parties and leaders if used judiciously. The various thought processes, as propounded over period of time, in this regard would enable the reader to comprehend how politics can be viewed as a branding-driven phenomenon. Also, the reader would come across how the phenomenon has been practiced in the Indian context along with such concepts as a national political brand versus a regional political brand and how the voters distinguish between them depending upon the electoral exercise (central election or state election).

Lastly, the research paper brought together the two phenomena of demographic dividend and political branding thereby underlining the monumental role played by youth during the last General Election and how brand Modi was most effective among the competing political brands in terms of developing a rapport with them resulting in the landslide victory for his party and alliance. Such was the magnitude of this victory that the Grand Old Party of India, namely Congress, was decimated to a two-digit number, its worst performance since the first General Election took place in 1952.

The research paper highlighted how the judicious use of such demographic indicators as age, gender, income and dwelling played crucial roles during the election and how, along with them, social networking emerged as a great influencer. Towards the end, the research paper highlighted the relevance of brand Modi even after completing two years at the office and how the electorate still trusts it over others. The future course of action and the appeal of brand Modi, in terms of staying on course of losing its sheen, would emanate from the results of the 2017 state assembly elections due in the home state of PM Modi, Gujarat as well as in the most populous and politically most significant state of India, Uttar Pradesh (Mr Modi is an MP from Varanasi, so are various ministers from various seats of this state), Punjab, Goa, Himachal Pradesh, Manipur and Uttarakhand which, in turn, would pave the way for the Lok Sabha election of 2019.

References

Chandler, J. & Owen, M. (2002). Introduction: The Nature of Brands 2-24, *Developing Brandswith Qualitative Market Research.* Thousand Oaks, California.

Clifton, R. *et al*. (2009). *Brands and Branding*. New York: Bloomberg Press.

Dean, D., Croft, R. & Pich, C. (2015). Toward a Conceptual Framework of Emotional Relationship Marketing: An Examination of Two UK Political Parties, *Journal of Political Marketing*, 14(1-2), PP:19-34.

Jevons, C. (2005). Names, Brands, Branding: Beyond the Signs, Symbols, Products and Services, *Journal of Product & Brand Management*, 14(2), pp:117-118

Lees-Marshment, J. (2009). Political Marketing: Principles and Applications. New York: Routledge.

Needham, C. (2006). Brands and Political Loyalty, *Journal of Brand Management*, 13(3), pp:178-187.

Scammell, M. (2007). Political Brands and Consumer Citizens: The Rebranding of Tony Blair, *The ANNALS of the American Academy of Political and Social Science,* 611 (1), pp:176-192.

Scammell, M. (2015). Politics and Image : The Conceptual Value of Branding Politics and Image : The Conceptual Value of Branding, *Journal of Political Marketing*, Vol.14, April, pp:7–18.

Smith, G. & French, A. (2011). The Political Brand: A Consumer Perspective. In: P.R. Baines (Ed.), *Political Marketing*,Vol. 1-3, pp: 1-18, London: SAGE.

Williams, G. (2000). *Branded?*, London: V&A Publications.

Websites

http://articles.economictimes.indiatimes.com/2014-05-14/news/49846727_1_exit-poll-2014-election-16th-lok-sabha-election [Accessed June 13, 2014]

https://blogs.thomsonreuters.com/answerson/indias-demographic-dividend/. [Accessed September 30, 2016]

Election Commission of India. (2014). *Archive of General Election 2014 Highlights.* [Available at: http://www.eci.nic.in/eci_main/archiveofge2014/2%20-%20HIGHLIGHTS_04122014.pdf] [Accessed April 5, 2015]

http://economictimes.indiatimes.com/news/economy/finance/indias-gdp-projected-to-grow-at-7-6-in-fy16/articleshow/50905066.cms [Accessed October 2, 2016]

https://en.wikipedia.org/wiki/List_of_countries_by_real_GDP_growth_rate [Accessed October 1, 2016]

http://www.firstpost.com/politics/results-2014-bsps-numbers-may-spring-rude-surprise-for-modi-1526311.html [Accessed May 20, 2014]

http://www.iamai.in/media/details/1293 [Accessed October 13, 2014]

http://www.indianexpress.com/article/india/politics/90000-per-seat-young-india-could-swing-elections-2014/ [Accessed April 4, 2014]

http://www.indiatimes.timesofindia.com/indias-middle-class-awakes.html [Accessed May 10, 2014]

http://www.livemint.com/Opinion/Xw5t2GLJiR3NDhuM6nRLDI/2014-general-election-150-million-voters.html [Accessed November 14, 2014]

http://www.newstatesman.com/percentage-total-population-either-living-rural-or-urban-areas [Accessed October 7, 2014]

http://www.nytimes.com/2014/04/18/opinion/indias-youth-challenge.html [Accessed October 13, 2014]

http://www.pewglobal.org/2016/09/19/2-how-is-modi-doing/ [Accessed October 3, 2016]

http://www.rediff.com/news/report/vote-share-ls-election-bjp-gets-31-pc-3rd-largest-bsp-gets-no-seat/20140517.htm [Accessed October 8, 2014]

http://www.thehindu.com/news/national/2014-lok-sabha-polls-will-see-most-firsttime-voters/article5710633.ece [Accessed April 14, 2014]

http://www.thehindu.com/news/national/demographic-dividend-at-its-peak/article5102093.ece [Accessed April 2, 2014]

http://www.thehindu.com/news/national/how-the-bjp-won-this-election/article6020712.ece [Accessed May 20, 2014]

http://www.thehindu.com/news/national/india-is-set-to-become-the-youngest-country-by-2020/article4624347.ece [Accessed February 16, 2015]

http://www.wikipedia.org/wiki/demographic_dividend [Accessed March 14, 2016]

http://www.zeenews.india.com/news/india/70-want-pm-narendra-modi-to-return-to-power-after-5-years-survey_1881172.html [Accessed July 16, 2016]

JGPP Journal of Governance & Public Policy
ISSN 2231-0924 Volume 7, No 2, July-December 2017 pp.22-26

Digital India – The Way Forward

Ramya Emandi*

The Digital India programme is one of the most ambitious programmes of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy by 2019. When introduced, the programme was highly criticized by experts and general public. It was told that the country is not ready for the same, rather it is not possible in the country like India where more than 68% population belongs to rural part with very limited infrastructure support, 26% population is illiterate, 68% transactions are in cash and about 80% population does not have access to internet facilities. But as the time is passing by, the reality of Digital India is catching up. The recent demonetisation has completely given a new outlook to Indian citizens with Digital Payments. What could be the way forward for Digitalisation in an Indian Scenario?

Keywords
Digitalisation, Public Policy, India, Digital India

Introduction

The Digital India programme is one of the most ambitious programmes of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy by 2019. When introduced, the programme was highly criticized by experts and general public. It was told that the country is not ready for the same, rather it is not possible in the country like India where more than 68% population belongs to rural part with very limited infrastructure support, 26% population is illiterate, 68% transactions are in cash and about 80% population does not have access to internet facilities. But as the time is passing by, the reality of Digital India is catching up. The recent demonetisation has completely given a new outlook to Indian citizens with Digital Payments.

A 2013 survey and report by IAMAI found that 69% of Indian survey respondents cited a lack of awareness of the Internet as a reason they weren't online. In India, there are One Billion offline users, out of which 27% are urban population, 46% are young and 57% are literate. Such demographic profiles of offline users can be readily converted into online users. However, Digital Literacy is the need of the hour. "The need for digital literacy in a country as populous and diverse as India is critical. With a constant tug-of-war between resources and requirements, technology is the only way to scale up solutions and bridge the gaps between them." said Debjani Ghosh, Managing Director, - Intel Corporation for South Asia. Awareness and engagement is picking up. For example, in 2014, political parties in India used Facebook and Twitter extensively for campaigning and to gather donations. In 2015, social media played a great role during Chennai city floods, in communicating safe areas and in providing food and amenities to stranded citizens. A survey of Internet users in India held in 2013 found

* Assistant Manager (Sustainable Development), Indian Oil Corporation Limited, Mumbai and can be reached at: ramya.emandi@gmail.com

that 89% of the urban online population uses internet for online messaging and communication. While, a 75% of them use internet for social networking.

An analytical report by Mckinsey and Facebook, titled 'Offline and Falling Behind: Barriers to Internet Adoption' has come up with an Index – 'Internet Barrier Index' assessing the obstacles to Internet access in 25 countries. India finishes 20th on that list. It had grouped India under 'Medium to High Barriers', the greatest challenges being infrastructure, user incapability and no incentives to enter this field. However, the percentage of new users adopting internet via mobile, instead of PCs and fixed-line broadband are large and growing. India is amongst the top 5 countries that showed high increase in internet users since 2004. It showed 22% year on year growth since 2012 and CAGR of 27% between 2004 to 2013. This is the highest growth among the top 5 countries. However, the penetration is only 15%, the lowest among the five. The trends that have fuelled the growth in the online population are urbanization, expansion of mobile network coverage and increasing mobile Internet adoption, shrinking device and data plan prices, increasing utility of the Internet, and the a growing middle class.

Government aimed to provide thrust to the nine pillars of growth areas through Digital India. They are Broadband Highways, Public Internet Access Programme, Universal Access to Mobile Connectivity, e-Kranti – Electronic Delivery of Services, e-Governance – reforming government through technology, Electronics Manufacturing, IT for Jobs, Information for All, and Early Harvest Programmes. Each of these areas is a complex programme in itself and cuts across multiple Departments and Ministries. Digital India is to be implemented by complete Government with overall coordination done by the Department of Electronics and Information Technology (DeitY). Therefore, it envisions facilitating an umbrella program across all the sectors. The programme has three basic vision:

1. Digital infrastructure as a basic utility to every citizen – this will enable the citizens with high speed internet through cutting edge digital infrastructure
2. Governance and services on demand – enabling citizens with all services like financial transactions, vices, etc at hand by the usage of cloud services
3. Digital empowerment – digital resources like documents etc, to access information faster and easier, empowering the citizens

One of the nine pillars and the programme's basic prerequisite is quality broadband highway with extensive coverage in urban as well as rural areas. As part of the initiative, connectivity has to be provided and improved to all villages in India in order to achieve complete administrative implementation. The construction of that network will help leaders provide a wide range of government services electronically to its citizens and make high-speed Internet service available. With this view, Government of India had laid down the Broadband Policy, 2004 in order to realize the potential of broadband services. It had aimed at enhancing the quality of life by implementation of tele-medicine, tele-education, e-governance, entertainment, web-based communication and also to generate employment. Further, government approved an aggressive expansion project for National Optical Fiber Network in 2011 for providing broadband connectivity to all 2.5 lakh Gram Panchayats (local governments). The plan is to extend the existing optical fiber network to the Panchayats. The network will provide a highway for transmission of voice, data and video in rural areas. It will enable the broadband connectivity up to 2 Mbps, capable of providing various services like e-health, e-education, e-commerce, e-governance, e-entertainment, etc. to citizens and businesses. Citizens especially, from rural areas, students, entrepreneurs and various Government departments providing services under e-governance will be benefited. Government has also programmed 100 "Smart Cities" to handle rapid urbanization in India. One of the key features of this program is to use technology extensively to manage complexity, reduce expenses, increase efficiency, and improve overall quality of life. The goal is to use "information and digital infrastructure to construct green buildings and intelligent transport networks to minimize congestion.

Many good programmes have been started by Government, but they need to be executed with actionable initiatives. With this view, following initiatives were planned to expand the reach of Digital India, considering the limitation of availability of high speed broadband connectivity.

(a) Common Services Centres (CSC) are being setup at all 2.5 Lakh Gram Panchayats. These centres will provide internet connectivity to offer electronic services closer to home in rural areas. Approximately two Lakh CSCs are made operational in 2016. Each local government caters to about 3 villages. In nutshell, about 3 villages have one service centre.

(b) Aadhaar Card enrolment (Universal Identification linked to biometrics all over the country) of all residents above the age of 18 years, which is being linked with major databases of social programmes like Liquefied Petroleum Gas (LPG), Indira Awaas Yojana (IAY), Electoral Cards, National Rural Employment Guarantee Act (NREGA), Pradhan Mantri Jan Dhan Yojana (PMJDY), Public Distribution System (PDS), National Social Assistance Programme (NSAP), etc. This will help to eliminate ghost beneficiaries from government databases and will provide real time online authentication. This will enable facilitating direct benefit transfer to bank accounts reducing leakages of tax money and leading to enhanced convenience for beneficiaries.

(c) One of the major barriers to Digitalisation in India is language as only about 100 Million citizens speak English. There are 22 different official languages in 11 scripts. A programme for providing access to e-Gov applications in Indian languages has been drawn up for priority implementation. Crowd sourcing model is being used to convert Government websites and portals into 22 Indian languages by sharing these resources and using an open data.

(d) With growing mobile internet users, mobile apps are also being developed for selective services to improve the ease of access. It is also envisaged to support multiple Indian languages phones to be manufactured in our country.

(e) With the rollout of demonetization, ePayments are being promoted rigorously. It is planned to make all government payments cashless over the next year. Government departments are being provided with technical support and facilitating use of Pay Gov-India platform for electronic payments and receipts.

How Digitalisation can help, especially for a country like India. There can be many positive applications of Digital India reaching the grassroots.

(a) Case 1 – How Digital India can help farmers?

The Government plans to make a common electronic platform that will allow farmers to sell their produce to buyers, all across the country. In the recent budget, the Centre has set aside Rs. 200 Crore for the creation of an online trading portal – National Agriculture Market. The platform will tackle the problem of distress selling. It aims to connect 585 mandis (agri-markets) in the country, which will also pitch for more startups in agriculture. Eventually, this may be a solution for reduction in suicides in farmers.

(b) Case 2 – How Digital India can help people in emergency situations?

An app/ phone call/ tweet can help reach the word of the distressed people to the right authorities. For an example, a girl was eve-teased in a train. She tweeted for help to Railway Protection Force, and they reached for her help in the very next station. Similarly, when trains are running with no water in the tanks for washrooms, passengers tweet their problems and by the time the train stops at next station, the water tanks are refilled.

(c) Case 3 – How Digital India can transform education?

In education, there is growing interest in massive online open courses, mobile learning and

personalized education, which will enhance India's poorly resourced education infrastructure. Technology represents a bridge to overcome rural/urban disparities and connect content-rich resources to deprived areas.

(d) Case 4 – How can Digital India help in health?

Even in the health care area, mobile applications have empowered health workers in delivering care to patients at remote locations around the world. There are applications which record vital signs of the patients through remote monitoring devices and electronically transmit them to physicians.

Solutions like digital locker, e-hospital, e-sign, and MyGov have proved their usefulness but their spread and reach needs to be rapidly ramped up. There are innumerable applications and benefits to digitalisation platform. The basic element to proceed forward is Infrastructure. Firstly, one of the easiest solutions is to leverage BSNL & MTNL (Govt. Telecommunication Companies) infrastructure of 33Mn fixed copper lines across the country by partnering with Cable TV, Internet Service Provider or other service providers. This will earn revenue in 70:30 ratio without incurring any capex by Government i.e. BSNL & MTNL. This idle infra sharing model by BSNL will enable Voice, Data and Video/ TV to reach every house on the same Telephone line. Secondly, the 110 Mn Cable TV connections can offer the Voice, Data and Video/ TV using proper Modems and Set Top Boxes (STB) through Local Cable Operators and Multi Service Operators (by obtaining Virtual Network Operator licence) who can reach the remote places is the country. Third, for the wireless 800 Million connectivity, the spectrum price is the key. A low cost of spectrum will lead to high demand and elasticity for the data, voice and video services and specifically in the 700, 800 and 900 MHz spectrum band which are the best bandwidth that enables high speed connectivity. The present Reserve Price/ MHz are on the higher side which will make the service costly and affordability will be an issue for the rural and sub-urban citizens. Hence, low cost spectrum, modems and STB's are need of the hour. This will

- Lead to the formation of e-value chain (consisting of electronic components, modules and systems) and creation of e-infrastructure for Corporates.
- Lead to cheaper e-services to all the citizens connecting My Digital India seamlessly through rural and urban India
- Lead to high growth of digital internet penetration across India enhancing e-gov, e-business and e-commerce leading to high economic growth across India
- Lead to minimization of migration of citizens from rural areas to urban areas enhancing the welfare of farmers and GDP by concentrating on the agriculture sector.

Although, India has some good holistic policies (National Telecom Policy 2012, Information Technology 2012, Electronics 2012, Cable TV, Special Economic Zones, Make in India, etc) in place, the crux is to execute them without overlapping. Convergence of these policies will speed up the digital capital formation and reach the benefits to the Citizens. Indian IT services & manufacturing sector has given good brand value to the Indian growing digital economy by producing good quality services and value for money. In late 80's, the first CMM Level 5 Company in the World was from India and today more than half of the CMM Level 5 companies in the World are from India. This speaks of quality standards of Indian companies. What can hold back India from exploiting the full potential of a digital age?

As per the World Bank report, a 10% increase in mobile and broadband penetration increases the per capita GDP by 0.81% and 1.38% respectively in developing countries. Google announced its partnership in Digital India by promising to offer free Wi-Fi of high-speed internet service over two phases in 500 railways stations in the country. Google CEO Sundar Pichai believes that a smart phone less than $30, along with connectivity in rural areas, ability to use the internet in local languages and bringing women folk on board are the key requirements for digitalisation. Facebook along with Samsung, Ericsson,

MediaTek, Opera Software, Nokia and Qualcomm also wanted to enter Indian digital markets through Internet.org. India is a huge market for business which can be leveraged. A win-win situation for the Global and Indian investors in Indian Digital Infrastructure will form strong bonding for IT, Communications & Entertainment and provide value to all the Stakeholders and contribute to GDP.

References

Government of India's Digital India, *www.digitalindia.gov.in*

Internet and Mobile Association of India (IAMAI) and IMRB International (2013). *Internet in India 2013*.

McKinsey & Company (2014). *Offline & falling Behind: Barriers to Internet Adoption*.

JGPP Journal of Governance & Public Policy
ISSN 2231-0924 Volume 7, No 2, July-December 2017 pp.27-38

Human Development in Bihar and Impact of Liquor Prohibition Policy: An Analysis

Debabrata Samanta* and **Shivani Narayan****

Though Bihar is one of the poorest states in India, but, in last one decade it has grown very fast and is considered to be one of the fastest growing states in India. However, there exist high amount of inequality among districts in different aspects of human development. The human development attainment is very low and inequality is argued to be one of the main reasons for it. The present study attempts to explore condition of human development in districts and identify high inequality in human development components and argues how inequality affects growth negatively. The liquor prohibition policy, though criticised for its impact on exchequer, is argued to enhance human development situation in Bihar. The present study attempts an Ex-ante analysis of the liquor prohibition policy. The policy is supposed to give impetus to sustained growth of Bihar through the route of human development, as the prohibition expected to empower the women and cause more disposable income in their hand to be spent on human development inputs. The policy requires to be complemented with special emphasis on women empowerment. The outcome of the policy can be measured through increase demand for education and health services from the marginal community hitherto stay away.

Keywords
Bihar, Human Development, Liquor Prohibition

Introduction

Bihar is India's one of the poorest state in India, characterised by low literacy rate, high gender gap in literacy rate, low sex ratio and low level of per capita income as well low Human Development Index (HDI) value as per India Human Development Report, 2011. However, there has been a remarkable change in last few years in the economy of Bihar. As reported in the Bihar Economic Survey, the per capita GSDP at factor cost (at constant price) has increased from Rs. 8773 to Rs. 25074 during 2004-05 to 2012-13. The economy of Bihar has grown at the rate of 12% during 2006-2013 compared to 5.7% during 1999 to 2006 and this growth rate is one of the highest in the country (Government of Bihar, 2014). The income distribution pattern, however, is highly unequal across districts. In Bihar, more than 89% of the population live in rural areas (Census India, 2011) with agriculture being a key economic activity. However, the share of primary sector in state GSDP has shown a decline in last few years and it came down to 22.4 percent for the triennium ending 2012-13; whereas, share of income from service sector has increased substantially. Given this situation, the challenge is to sustain

* Assistant Professor,Chandragupt Institute of Management,Patna, Bihar and can be reached at: debabrata_samanta@yahoo.co.in and debabrata@cimp.ac.in
** Ex-student, Chandragupt Institute of Management, Patna, Bihar and can be reached at:nshivani1993@gmail.com

the growth of the state. As in one hand, economic growth provides resources to permit sustained improvements in human development, on the other hand equitable income distribution, resource allocation, expansion of improvements in the quality of the labour force are important contributors to economic growth and the economic growth itself will not be sustained unless preceded or accompanied by improvements in human development (Ranis, Stewart, & Ramirez, 2000). The human development (HD) paradigm takes the view that growth is not end of economic development, rather argues to fully exploit the opportunities for improved well-being that the growth offers by emphasising on investment on the education, health and skills of the people (Haq, 2009). So channelizing benefits of growth in terms of capability enhancement appears to be a challenge for the state to sustain the economic growth. Another risk is that, high growth and low HD situation may lead to a vicious cycle and push the economy back into tits original position (Ranis, Stewart, & Ramirez, 2000).

In this situation, the newly elected government under Mr Nitish Kumar, has brought out a milestone policy change in 2016 in the form of complete prohibition of liquor in the state, as promised before the election. There are mix reactions on this policy change. Though the new policy is being criticised for its stringency, loss of exchequer, however, there are expected social benefits out of this policy adoption. The present paper attempts to analyse the current situation of human development in Bihar and how the new policy paradigm impact on human development. The present paper has two main sections, in the first the concept and measurement issues have been explored and district wise human development index calculated to compare. In the second part, the policy paradigm of liquor prohibition has been discussed along with its expected impact on human development in Bihar.

Human Development: Concept and Measurement

The traditional approach of viewing economic growth as economic development had been criticised heavily as the approach miss evolution of other factors, such as inequality, poverty or social well-being and presume that the benefit of growth of the economy shall benefit the whole of society, either by market-driven 'trickle down' effect or by state-driven social policy (Fukuda-Parr, 2003). It is argued that the human development approach contains two central theses about people and development, which identified by Amartya Sen as 'evaluative aspect' and the 'agency aspect'. While the evaluative aspects talk about improvement of human lives as an explicit development objectives and use human achievements as key indicators of progress, the agency aspect sees human being an agent who acts and brings improvement through policy and political changes. However, the human development approach is mostly based on the evaluative aspect (Fukuda-Parr, 2003). The basis of human development is dealt with acquiring knowledge, accessing better standard of living and leading healthy and long life which could be then used in additional choices or productive purpose. The growth, as argued, need to be translated into improvement in people's lives. Human development constitute of four elements; productivity, equity, sustainability and empowerment (Nayak, 2008). The initiative of calculation of human development index (HDI) was taken by the UNDP, as a step towards greater human well-being. It established both availability of measurements and comparison tools which provides an alternative of evaluation of performance other than per capita income. The HDI calculation centres on the Amartya Sen's capabilities approach. Human development finds its theoretical foundation in Sen's 'capability' approach. Capability is defined as various combinations of functioning that a person can achieve. It argues about reflecting the person's freedom to lead a life, choose from possible livings. It is argues that development should be viewed as the process for improving quality of lives of the people through enhancing capabilities of the people (Sen, 1989). This approach appeared as an instrument in shifting the analysis of development, by broadening the horizon and taking expansion of human capabilities as overriding objective of development rather than economic growth. Sen's capability approach, in one hand, talks about income, commodity and happiness, on the other, put emphasis on freedom. UNDP (United Nation Development Programme, 1990) defines Human development as a process of

enlarging people's choices and identified that to live a long and healthy life, to be educated and to have access to resources for a decent standard of living are most critical among the wide range of choices. The additional choices include political freedom, guaranteed human rights and personal self-respect. It viewed the process of development to create a conducive environment for people, individually and collectively, to develop their full potential and to have a reasonable chance of leading productive and creative lives in according with their needs and interests. UNDP defines Human Development Approach is about expanding the richness of human life, rather than simply the richness of the economy in which human beings live. It is an approach that is focused on people and their opportunities and choices. UNDP calculates the Human Development Index, which is a composite index of three dimensions of human well-being, namely, a long and healthy life, education, and a decent standard of living. In the question of rationale behind selecting these three dimensions it is argued that as it is obvious that the human development has many facets, so the index of human progress should incorporate a range of indicators to capture this complexity, but having too many indicators in the index would blur its focus and make it difficult to interpret and use. The HDI has conceptualised to balance the virtues of broad scope with those of retaining sensitivity to critical aspects. Lack of data has also been identified as a limiting factor and it is also argued that too many indicators may produce a perplexing picture, perhaps distracting policy makers from its thrust.

There has been a change in methodology of calculation of HDI since 2010. The calculation of HDI involves three dimensions – health (h), education (e), and the ability to achieve a decent standard of living, represented by income (y). The performances of each country in these three dimensions are normalized such that $0 \leq h,e,y \leq 1$, and then aggregated to get the composite HDI. Prior to 2010, linear averaging across three dimensions was used as an aggregation method or linear averaging method to obtain HDI, $(h+e+y)/3$. In 2010, this aggregation method was changed to the geometric mean (GM), $(h \times e \times y)^{1/3}$. It is argued that, while the linear averaging method satisfied the axioms of monotonicty, anonymity and normalization, the geometric mean method, in addition to these three axioms, also satisfied the axiom of uniformity; as well as the geometric mean method address the criticism of perfect substitutability of linear averaging method (Mishra & Nathan, 2013).

Calculating Human Development Index in the Context of Bihar

With respect to Human Development, Bihar ranks 21st out of 23 states in India (United Nation Development Programme, 2011). One of the most important reason, as identified in the report, that there is huge loss of human development due to inequality. There is high gender gap in literacy and there is high inequality among the districts in different human development components. The present study tried to calculate district wise human development index with the available data. One thing to be noted here that, there is paucity of data, especially district wise disaggregated data relevant to calculation of human development index in public domain. The study attempts to calculate the District wise Human Development Index with the available data. The methodology of calculation of District wise Human Development Index (DHDI) is defined in the following section.

Human Development Index is a statistical method to find the composite of education, health and economical index. For calculation of HDI, data was gathered from different sources and database. This is to be noted that the present study attempted to analyse district wise situation of human development in Bihar as comprehensive as possible with the help of available data. The situation as found is indicative, might not be very exhaustive, but gives a broad overview of condition of district. The HDI calculation includes computation of three dimensions namely education, health and income. For calculating education dimension, literacy rate(LR) (Elementary Education in India, District Report Cards 2014-15 Volume 1, National University of Education, Planning and Administration) and gross enrolment ratio (GER) (U-DISE, for the year 2014-15)for primary education considering class 1-5, is taken as

indicators to measure educational attainment. For calculating health index, infant mortality ratio (IMR) has been considered and this data have been taken from Annual Health Survey Bulletin 2011-12, Bihar. For calculating income index, district wise per capita income (PCI) has been considered. The data of PCI for the year 2011-12 has been taken from Economic Survey, 2015-16 by Finance Department, Government of Bihar (Government of Bihar, 2016). After collecting district wise data, the next step was to normalise, as the data is measured in different unit and thus would lead to improper result. On the other hand, normalizing renders data in one unit and transforms it to normal distribution. The study has used the range equalization process for of normalization of data presented below:

$$Di = \frac{\text{Value of component of the ith District - minimum value}}{\text{(Highest value- Lowest value) of districts}}$$

Where, Di= LR, GER, IMR, PCI

After calculating value of each dimension, the DHDI is derived by assigning equal weightage to each dimension.

After normalizing each component, the next step is to calculate education index. Since there are two components in the education index, so after normalizing, education index is calculated for each district, using the formula, (sum of normalized literacy rate and normalized GER)/ 2, as both of the components, in this paper, are assumed to be having equal weightage. IMR indicates death of number of children of less than one year of age, per thousand live birth, which is a negative indicator, so in order to compute health index following formula is used, (1-IMR) for each district. For income index, the normalized value of per capita income represents the index. After computing the individual index, HDI was computed using the formula given below. This formula is the old UNDP formula that is linear averaging method. The rationale behind taking the linear averaging formula is that, as the value of each index normalised, which make the lowest value 0, which shall make the whole index value 0. To avoid this, the linear averaging formula has been adopted in the present study. Each of the index in this study is given equal weightage, and this gave the HDI index for each district.

The District Human Development Index described as

District Human Development Index= W1. Edu + W2.Health + W3.Income

Where $W_1=W_2=W_3 = 1/3$

Values of DHDI lie between 0 and 1. In the present study, the DHDI has been used to assess level of progress in human development by each district. A high value of HDI index for the district indicates better condition in terms of human development in the district.

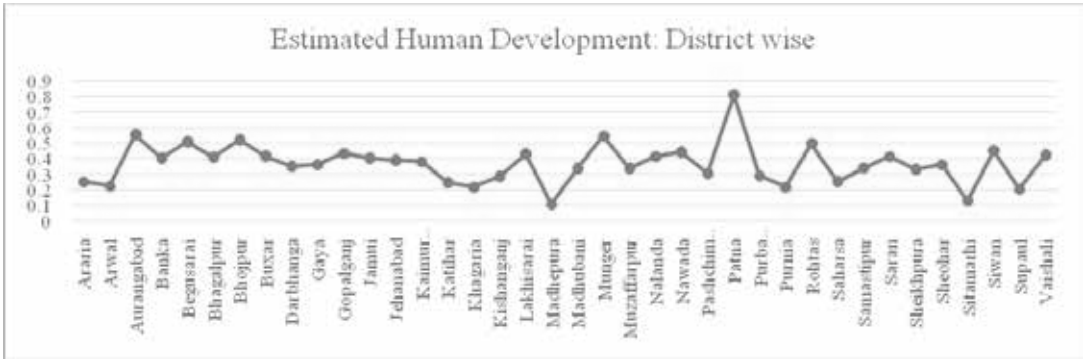
Result and Discussion

The present study found that there are high inequalities among the districts in all aspects of human development. In terms of education, there is high inequality among districts on both literacy arte and Gross Enrolment Ratio (GER). Whether in Rohtas, the district with high literacy rate, the value is 75.6% and in Purnia the literacy rate is 52.5%. To further elaborate the inequality, we have calculated standard deviation of literacy rate and it stands at 6.56 and it conveys the disparity between the districts. The standard deviation of GER is 6.445, which exhibits that the districts vary to each other to much extent. Similarly, when analysing for Heath index, the sole indicator used in the present paper is IMR. The estimated value of standard deviation among the districts regard to IMR is 6.4. For calculating economic index, per capita income is taken as the sole indicator. Whether, the district with the highest per capita income is Patna with per capita income of Rs. 63063, the second is Munger with per capita income Rs.

22051. The difference between the highest and second highest indicates high inequality. The standard deviation of per capita income stood at 8719.42 and it is undoubtedly indicating very high amount of disparity in terms of economic achievement. (See Table 1 in the annexure).

Calculating the DHDI following the above mentioned method also exhibit high inequality among the districts. The value of DHDI varies from 0.11 (for Madhepura district) to 0.81 (for Patna district). For detail see table 2. The standard deviation of DHDI estimated to be 0.13.

Chart 1: District wise Calculated Human Development Index



It is well argued that inequality and regional disparities affect economic growth. Galor & Zeira (1993) argued that inequality negatively affects the GDP per capita in the short run, furthermore, in the presence of indivisibilities in investment in human capital, these effects are carried to the long run as well. In the country wide study Brueckner & Lederman (2015)showed that income inequality has a significant negative effect on aggregate output for the average country in the sample. Halter, Oechslin, & Zweimüller (2014) found that though in short run inequality helps economic performance but in the long run higher inequality tends to reduce growth of GDP per capita. The high inequality among regions might have appeared as reason for persistent underdevelopment in Bihar.

However, there is change in the development story in the Bihar started a decade ago. In the context of Bihar, as reported in the Bihar Economic Survey, (Government of Bihar, 2014) the per capita GSDP at factor cost (at constant price) has increased from Rs. 8773 to Rs. 25074 during 2004-05 to 2012-12. The economy of Bihar has grown at the rate of 12% during 2006-2013 compared to 5.7% during 1999 to 2006. Sustaining the growth rate appears as challenge in the long run with a view of the prevailing inequality among districts. Ranis, Stewart, & Ramirez (2000) also advocated that failing to enhance adequate human development can create a vicious cycle, which may push the economy back to its original situation. In this context it is very necessary to invest in human development inputs to sustain the growth. In the following sections, the present study attempt to analyse the new policy paradigm of alcohol prohibition in the state and its impact on human development.

The Prohibition of Liquor Policy in Bihar: An Analysis

Background

Liquor which is known to be hazardous to human health, especially the country liquor, which is manufactured without any regulation, causes serious disease ranging from immediate illness to death. Chief Minister Nitish Kumar promised to the people of Bihar, during his election campaign, to implement prohibition on liquor in Bihar. It was also argued that the rationale behind the policy is that alcohol

consumption is the primary reason for violence against women (Kumar & Prakash, 2015). With the approval of the cabinet, initially on 1st April, 2016 the prohibition of country made spiced liquor had been made prohibited and the Excise and Prohibition department issued notification to implement the decision of prohibition of country made spiced liquor in rural areas. However, on 5th April, 2016, a blanket ban was initiated and both the liquor, namely Indian Made Foreign Liquor (IMFL) and country liquor were completely prohibited for manufacture, sale transport and consumption, with immediate effect. Several steps have been taken to make Bihar completely liquor free. Checkpoints at different places around the state and issuing instruction to police to be more vigilant are some of them. Furthermore, the state government has requested the Union Ministry of Civil Aviation to check smuggling of liquor into Bihar. The government is willing to install baggage x-ray screening machines at airports to scan luggage and baggage of all the passengers at Patna and Gaya airports, to keep a check upon smuggling of liquor into the state.

The Policy Paradigm

The Government of Bihar on 1st April, 2016 initiated prohibition on country made and spiced liquor following which on 5th April, 2016 both Indian made foreign liquor and country liquor both were completely prohibited in state, initiating a blanket ban. But the passed act criticized for its stringency, following which the Bihar Prohibition and Excise Act 2016 was again passed on 2nd October, 2016. The Act replaced the earlier Bihar Excise (Amendment) Act, 2016 and came into force from 2nd October, 2016. The Bihar Prohibition and Excise Act 2016 prohibits sale, purchase or consumption of liquor in the state.

Salient Points

The Bihar Prohibition and Excise Act, 2016 marks Prohibition on sale, purchase or consumption of liquor or intoxicants. Manufacturing of any kind of liquor or intoxicants gets prohibited and any breweries or distillery cannot be established.

If government requires any such establishments, it would be set up after obtaining proper license, further a hologram would be attached to the products after consultation with the excise commissioner.

The act has proposed to appoint Excise Commissioner, Excise Officers for performing the functions of the act. The collector is proposed to facilitate the prohibition drive as well as ensuring administration of the act in his area of jurisdiction.

The Government has to establish de-addiction centres for those people engaged or about to engage in consuming liquor. The centres would offer medical treatment or counselling or both under the supervision of medical expert.

Provision for imposition of strict penalty proposed on people who unlawfully import, export, transport, manufacture, possession, sale, consume or even establish any manufacturing, distillery, be it a company or any individual,as both are liable to bear the penalty. Even if any person alters any denatured spirit with an intention to make it fit for human consumption, mixes noxious substance with liquor, he would also be penalised.

Provision of imposition of collective fine by the Collector, if a particular village or town or any locality within a village or town or any community is found to be a habitual offender or are obstructing the administration of the provisions of the act.

Prohibition Policy in Bihar: An Ex-Ante Analysis

The present prohibition policy, is of the nature of 'Regulative Public Policy'. Regulatory policy is about

achieving government's objectives through the use of regulations, laws, and other instruments to deliver better economic and social outcomes and thus enhance the life of citizens and business (Organisation for Economic Co-operation and Development, 2012). It also suggested to adopt an integrated approach, which considers policies, institutions and tools as a whole, at all levels of government and across sectors, including the role of the legislature in ensuring the quality of laws; to make the policy a success.

Of late, the evaluation approaches for public policy intervention has grown considerably in last two decades. As public policy interventions intend to bring changes and designed to reach certain goals, it is imperative to analyse effectiveness of the policy intervention. Impact Assessment is a tool that examines and measures the likely benefits, costs and effects of new or changed regulations and policies. The basic idea is to provide policy makers empirical data and comprehensive framework to assess consequences of the policy. Ex-Ante Analysis is a special method of evaluating impact of any policy intervention. An ex-ante impact evaluation attempts to measure the intended impacts of future programmes and policies, given a potentially targeted area's current situation (Khandker, Koolwal, & Samad, 2010). The ex-ante assessment is important as it provides evidence on what range of impacts to expect after the program is implemented. Ex ante evaluation can be both qualitative or quantitative based on economic modelling to predict programme impact (Khandker, Koolwal, & Samad, 2010) as well use behaviour modelling to predict impacts of social sector programme (Todd & Wolpin, 2005).

For simplicity, we assume a two dimension space where household/individual's preferences presented as a utility function U, which is assumed to be dependent consumption of Food & other (F) and consumption of alcohol (A). Here we assumed that a typical household spend on food and other items and alcohol. Other items include expenditure on education, health, nutrition, leisure, entertainment etc. The utility function can be represented as U = U (F, A). The household/the individual's problem is to maximize utility subject to budget constraint $M \leq P_F.F + P_A.A$. Where P_F and P_A are market prices of Food & other and Alcohol respectively. The solution of this problem is identify optimal choices of F* and A*. Estimating the model requires data on F, A, M, P_F and P_A across household/individuals. Now, due to the change in policy paradigm, which prohibits alcohol in the state make the household/individuals are unable to make a trade off which leads to 'corner solution' of this optimization problem. This implies, with complete ban on alcohol, the household/individuals spend only on food & other items only, which shall leads to enhance their utility level. In this modelling approach, one also could assume that utility U of a household/individual dependent on exogenous socio economic characteristics X too. Which leads to make the utility function U=U(F, A, X). Estimating this type of model is argued to be not straightforward (Khandker, Koolwal, & Samad, 2010). However, in the simple economic modelling analysis it is evident that with complete prohibition of alcohol consumption of food and non-food items of any typical family increases and the family moves to higher utility level.

On qualitative point of view of ex-ante analysis the present study taken hint from the framework provided by Crissman, Abernethy, Delaporte, & Timmers (2013). The framework provide guideline for ex-ante analysis with different modules of questions. Where the Module-1 ask 'Key questions to validate intervention logic', the Module 2 enquire about 'Development and environment setting'; Module 3 ask for 'Stakeholder analysis', Module 4 requires 'Institutional and organizational analysis' and Module 5 enquires about 'Transmission channel'. In the analysis of key question it can be argued that a section of people demanded ban of alcohol for safe and better society ((Government of Bihar, 2016). The policy intervention is the resultant of the voice of the people. The development and environment setting agenda analysis exhibit that with the high level of poverty and inequality, a high proportion of income is spent on alcohol. If the per capita expenditure on alcohol is seen as a proportion of the per capita income, in this respect Bihar is placed at the 12th position out of the 29 states and Delhi (Kaushal & Mishra, 2015). Whether the key stakeholders of this policy intervention is mostly the poor drinker, however success of the policy depends upon different secondary stakeholders at different level. One of

the most important stakeholder of this policy intervention is the women member of the household and society. Ex-post analysis of the policy intervention calls emphasizing the impact of the policy paradigm on women member. Role of government institution is very much critical in successful intervention of this policy. The act has created provision and responsibilities for different institutions and their respective roles in implementation. To assess benefit of the policy, it is important to assess the impact of the policy on poverty level and women empowerment. A successful implementation expected to enhance demand of food and other items in the rural area. The outcome of the policy might be more private education and health centre at villages.

Though the Prohibition expected to have high social benefits, however following are certain criticisms raised about the regulation.

- It is argued that alcohol is consumed voluntarily and in moderate quantity by almost 30% of India's population; a blanket paternalistic prohibition will lead to a welfare loss by reducing the well-being of this consumer group (Kumar & Prakash, 2015)
- The estimated loss of revenue is about Rs. 4000 crore, which argued to be a huge hit to a 'resource-starved state' like Bihar (Kumar & Prakash, 2015)
- The sale, purchase or consumption of liquor has led to loss of employment of those who were employed in number of manufacturing units in the state (Daniyal, 2016)
- Since the licenses of breweries or distilleries would not be renewed and this would lead to discouraging the industries and loss of investment as well as employment opportunities (Mishra S., 2017).
- The provision of imposing collective fine on villages and communities, arrest without warrant by the police and excise officials, has invited several criticisms in grounds of stringency of the law (Tewary & Raman, 2016)

Expected Impact of Prohibition on Human Development

Though there is high growth rate of per capita income in Bihar in recent years, but the per capita income of Bihar is the lowest in India (Government of India, 2015). As argued, the connections between economic growth (EG) and human development (HD) form two chains. It is well defined that EG and HD can be emerged as mutually reinforcing into upward spiral, where high level of HD shall lead to high growth and promote high HD ultimately. But on the other hand a weak HD may result in lowering growth and as a consequence, shall bring down the growth of the economy (Ranis, Stewart, & Ramirez, 2000). As discussed, Bihar has been experiencing a high growth of per capita income in last decade. To continue the growth of per capita income in a sustainable manner it is important to boost up the HD components. Otherwise, there is risk of fall back. Given this situation, the decision of alcohol prohibition can play a role in developing HD in the state. Though the decision shall bring down the revenue to the state exchequer, however, the policy shall empower the household, especially women with more saving to spend on Human Development inputs. The state government has launched big push programmes of Women Empowerment, along with this prohibition, to complement the policy decision. Women development corporation, Bihar is one such initiative that focuses on development of women, through different programmes sponsored by state government, central government and through different NGOs. To empower women and to make them self-reliant, state has started the *MukhyamantriNari Shakti Yojana* (Chief Minister Women Empowerment Scheme). To encourage girl child to study further, and to reduce the school dropout amongst girls, the *Mukhyamantri Balika Cycle Yojana* (Chief Minister Girls' Cycle Scheme) is launched by the state government. The *Betibachaobetipadhao*, a central sponsored scheme encourages education of girl child. Since the sex ratio of Biharis 918 per 1000 male (Census, 2011), which is below the national average and further to improve the sex ratio and stop female

foeticide, state sponsored *Mukhyamantri Kanya Suraksha Yojna* (Chief Minister Girl Security Scheme) has been adopted. A *One Stop Centre* has been launched to provide support the women, who are victim of domestic violence. The centre provides medical, psychological, legal and counselling support.

It is well argued fact that where women control cash income the expenditure pattern, are geared relatively more toward human development inputs like food, education, nutrition. It is found that with larger control of women over cash, spending on alcohol and cigarette decreases and household's calorie consumption increases (Von Braun, 1988; Ranis, Stewart, & Ramirez, 2000). The prohibition expected to increase disposable income of households, to be spend on Human Development inputs. This prohibition of alcohol expected to increase the demand for nutrition, education and health care in the state, as these goods are of normal good in nature. The prohibition policy shall complement the human development component to for a sustainable growth of per capita income in future. The outcome of the policy can be measured through increase demand for education and health services from the marginal community hitherto stay away from demanding these inputs.

Conclusion

Keeping the current scenario of Bihar in mind and to sustain the growth and to move towards HD from EG, liquor prohibition is an imperative step which would indirectly cause saving in the household, and that saving could be better invested into HD inputs, such as availing better education facilities, health facilities, consuming protein and vitamin rich food and also towards some other luxury expenditures. The present paper presents the HDI for all the districts of Bihar(refer to Table 2) and argues there is high inequality among districts, especially in case of per capita income. The study argues that emphasising more on human development components and spending more on HD inputs can reduce the inequality. It is also argued that to sustain growth of per capita income in Bihar, enhancing human development also plays a critical role, otherwise there is a chance for revert back. In this scenario, the prohibition on liquor, though criticised for creating pressure on exchequer, has not only increased disposable income of households to be spend more on human development inputs, it also empowers women socially to take strong decisions. The Bihar government has complemented the liquor prohibition initiative by boosting up different women empowerment programme and launching new programmes. The present paper argues for more efficient implementation of the prohibition and empowerment of women which in turn shall enhance human development situation in Bihar and shall be instrumental for sustainable growth of Bihar which may be captured through increase in demand for better education and health service in rural areas.

References

Brueckner, M. & Lederman, D. (2015). *Effects of Income Inequality on Aggregate Output.* The World Bank.

Crissman, C. C. *et al*. (2013). *A Practical Guide for Ex-Ante Impact Evaluation in Fisheries and Aquaculture.* Penang, Malaysia: WorldFish.

Daniyal, S. (2016). *This Law has Ruined us: How Nitish Kumar's Prohibition Policy Risks Alienating Mahadalits*. [Available at: https://scroll.in/article/815757/this-law-has-ruined-us-how-nitish-kumars-prohibition-policy-risks-alienating-mahadalits]

Fukuda-Parr, S. (2003). The Human Development Paradigm: Operationalizing Sen's Ideas on Capabilities, *Feminist Economics,* 9(2-3), pp:301-307.

Galor, O. & Zeira, J. (1993). Income Distribution and Macroeconomics, *The Review of Economic Studies,* 60(1), pp:35-52.

Government of Bihar. (2014). *Economic Survey 2013-14.* Patna: Finance Department, Government of Bihar.

Government of Bihar. (2016). *Democratic Participatory Agenda Setting in Bihar: An Assessment.*

Government of Bihar. (2016). *Economic Survey.* Government of Bihar.

Government of India. (2015). *Per Capita National Income* . New Delhi: Ministry of Statistics & Programme Implementation.

Halter, D., Oechslin, M. & Zweimüller, J. (2014). Inequality and Growth: The Neglected Time Dimension, *Journal of Economic Growth,* 19(1), pp:81–104.

Haq,M. (2009). The Human Development Paradigm. In: S. Fukuda-Parr, & A. K. Shiva Kumar, *Handbook of Human Development.* Oxford University Press.

Kaushal, A. & Mishra , S. (2015). *Bihar's Liquor Ban is Good Politics, Bad Economics.* The Business Standard. [Available at:http://www.business-standard.com/article/politics/bihar-s-liquor-ban-is-good-politics-bad-economics-115120500786_1.html]

Khandker, S. R., Koolwal, G. B. & Samad, H. A. (2010). *Handbook on Impact Evalution: Quantitative Methods and Practices.* Washington DC: The World Bank.

Kumar, S. & Prakash, N. (2015, December). *Bihar's Alcohol Ban: Prudent Policy or Tail-Chasing*. Retrieved from Ideas for India.

Mishra, S. (2017). *Why Prohibition has Left Bihar Staring at Bleak Times*. [Available at: http://www.business-standard.com/article/politics/why-prohibition-has-left-bihar-staring-at-bleak-times-117020400773_1.html]

Mishra, S. & Nathan, H. S. (2013). *Measuring Human Development Index: The Old, The New and The Elegant.* Mumbai: Indira Gandhi Institute of Development Research.

Nayak, P. (2008). Human Development: Conceptual and Measurement. In: P. Nayak, *Growth and Human Development in North East India,* pp: 3-18. New Delhi: Oxford University Press.

Organisation for Economic Co-operation and Development. (2012). *Recommendation of the Council on Regulatory Policy and Governance.* OECD.

Ranis, G., Stewart, F., & Ramirez, A. (2000). Economic Growth and Human Development, *World Development, 28*(2), pp:197-219.

Sen, A. (1989). Development as Capability Expansion, *Journal of Development Planning,* 19, pp:41-58.

Stanton, E. A. (2007). The Human Development Index: A History, *Political Economy Research Institute*.

Tewary, A. & Raman, A. (2016). *After Ban, in a State of Low Spirits*. [Available at: http://www.thehindu.com/news/national/After-ban-in-a-state-of-low-spirits/article14568181.ece]

The Indian Express. (2015). In Class, Bihar does Improve but Remains Way Behind Rest of Country.

Todd, P. E. & Wolpin, K. I. (2005). *Ex Ante Evaluation of Social Programs.* Active Labor Market conference, Nuremberg.

United Nation Development Programme. (1990). *Human Development Report.* New York: Oxford University Press.

United Nation Development Programme. (2011). *Bihar: Economic and Human Development Indicators.*

Von Braun, J. (1988). Effects of Technological Change in Agriculture on Food Consumption and Nutrition: Rice in West African Setting, *Economic Development and Cultural Change,* 37.

Annexures

Table 1: Literacy rate, GER, IMR, Per Capita Income of all the districts

	Literacy Rate	GER	IMR	Per Capita Income
Araria	55.1	101.3	55	8776
Arwal	69.5	103.3		9125
Aurangabad	72.8	111.9	44	11012
Banka	60.1	102.8	45	9269
Begusarai	66.2	100.5	43	17587
Bhagalpur	65	100.1	51	17324
Bhojpur	72.8	102.3	44	12459
Buxar	71.8	103.9	53	11289
Darbhanga	58.3	99.2	48	10932
Gaya	66.4	96.4	52	11897
Gopalganj	67	102.2	48	12129
Jamui	62.2	121.3	54	10166
Jehanabad	68.3	98.3	51	11182
Kaimur (Bhabua)	71	98.3	53	10412
Katihar	53.6	99.9	55	11278
Khagaria	60.9	100.7	63	11515
Kishanganj	57	113.1	58	9928
Lakhisarai	65	108.2	50	13073
Madhepura	53.8	103.5	68	8609
Madhubani	60.9	104.3	52	9241
Munger	73.3	103.5	48	22051
Muzaffarpur	65.7	100	57	15402
Nalanda	66.4	100.4	49	12561
Nawada	61.6	114.4	47	9560
Pashchim Champaran	58.1	102.6	53	9971
Patna	72.5	81.7	37	63063
PurbaChamparan	58.3	97.5	53	10735
Purnia	52.5	104	58	10099
Rohtas	75.6	102.5	49	13909
Saharsa	54.6	108.7	59	12197
Samastipur	63.8	97.6	52	10762
Saran	68.6	104.3	51	10615
Sheikhpura	66	103.6	56	9687
Sheohar	56	108.4	47	7092

	Literacy Rate	GER	IMR	Per Capita Income
Sitamarhi	53.5	97.6	64	9538
Siwan	71.6	95.4	46	10685
Supaul	59.7	98.1	61	8492
Vaishali	68.6	93.9	47	12490

Sources: (1) National University of Education, Planning and Administration,2014-15; (2) U-DISE, for the year 2014-15; (3) Annual Health Survey Bulletin, Bihar, 2011-12; (4) Bihar Economic Survey, Department of Finance, Govt. of Bihar, 2016.

Table 2: HDI of all districts of Bihar

	Education index	Health Index	Income index	HDI
Araria	0.304	0.419	0.030	0.251
Arwal	0.641	0.000	0.036	0.226
Aurangabad	0.821	0.774	0.070	0.555
Banka	0.431	0.742	0.039	0.404
Begusarai	0.534	0.806	0.188	0.509
Bhagalpur	0.503	0.548	0.183	0.411
Bhojpur	0.699	0.774	0.096	0.523
Buxar	0.698	0.484	0.075	0.419
Darbhanga	0.347	0.645	0.069	0.353
Gaya	0.486	0.516	0.086	0.363
Gopalganj	0.573	0.645	0.090	0.436
Jamui	0.710	0.452	0.055	0.405
Jehanabad	0.552	0.548	0.073	0.391
Kaimur (Bhabua)	0.610	0.484	0.059	0.384
Katihar	0.254	0.419	0.075	0.249
Khagaria	0.422	0.161	0.079	0.221
Kishanganj	0.494	0.323	0.051	0.289
Lakhisarai	0.605	0.581	0.107	0.431
Madhepura	0.303	0.000	0.027	0.110
Madhubani	0.467	0.516	0.038	0.341
Munger	0.725	0.645	0.267	0.546
Muzaffarpur	0.517	0.355	0.148	0.340
Nalanda	0.537	0.613	0.098	0.416
Nawada	0.610	0.677	0.044	0.444
PashchimChamparan	0.385	0.484	0.051	0.307
Patna	0.433	1.000	1.000	0.811
PurbaChamparan	0.325	0.484	0.065	0.291
Purnia	0.282	0.323	0.054	0.219
Rohtas	0.763	0.613	0.122	0.499
Saharsa	0.386	0.290	0.091	0.256
Samastipur	0.445	0.516	0.066	0.342
Saran	0.634	0.548	0.063	0.415
Sheikhpura	0.569	0.387	0.046	0.334
Sheohar	0.413	0.677	0.000	0.363
Sitamarhi	0.222	0.129	0.044	0.132
Siwan	0.586	0.710	0.064	0.453
Supaul	0.363	0.226	0.025	0.205
Vaishali	0.503	0.677	0.096	0.425

Source: Calculated by authors

JGPP Journal of Governance & Public Policy
ISSN 2231-0924 Volume 7, No 2, July-December 2017 pp.39-59

Industrial Development Induced Climate Change and its Impact on Various Segment of Rural Society: A Case of Hajira Village of South Gujarat, India

Ankit Patel*

By taking the case of a South Gujarat village, namely Hajira, the present article tries to explore some of the issues related to the climate change more specifically in terms of environmental degradation due to process of modernisation. The article identified four major issues in terms of environmental/ pollution, health livelihood, and of gender. The article also assess the working of the state, panchayat, Gujarat Pollution Control Board (GPCB), industry, civil society organisation, local leaders, etc. It is to be noted that in spite of presence of policies, rules, regulations, legislatures, provisions of various types, the problems; especially marginal section of the society remained unattended and they pushed into 'marginalisation' and 'impoverishment' condition, that has culminated in arousing anger towards the whole affair of development model. The article re-emphasised the needs of understanding the complexity of the rural society in a sociological perspective while planning and designing for tackling the wider and important issues of development.

Keywords
Industrialisation, Marginalisation, Impoverishment, Climate Change

Introduction

Background of the Study

The Rio declaration of united nation framework convention on climate change emphasised that human beings are at the centre of concerns for sustainable development and are entitled to a healthy and productive life in harmony with nature. This principle affirms that considerations of human well being should guide policy making for sustainable development and that conservation of natural entities must be reckoned as part of such well being. (Gosh Prodipto, 2013).

Unfortunately, these points are not fully granted in the case of development induced environmental problems[1]. Of course, during the past several decades, there has been an increasing concern over environmental problems throughout the world involving depletion of Ozone layer, acid rain, green house effect, soil erosion, deforestation, water pollution, air pollution, etc.

At the same time numbers of environmental movements[2] have emerged in India demanding restoration of balance between development and environment and asking for a greater role for the state agencies in the protection of the environment[3]. On the issue of the climate change various agitations protests, resistances; particularly on the issues of environmental degradation took place throughout India. Although, the social scientists have yet to study this phenomenon exclusively and hence they are

* Assistant Professor, Shri Saraswati College of Social Work, Moriyana, Bharuch, Gujarat and can be reached at: appatelankicug@gmail.com

unable to answer many questions raised out of intervention of the developmental program. It has been observed that the studies[4] of the displaced people by change of climate are very few. To evolve the comprehensive policy and program more and more empirical studies at the micro level are welcomed. In this background the present exercise is undertaken.

Coverage / Method of Study

The purpose of the present article is to explore the micro impact of industrial development induced climate change[5] by eliciting the views of the local people which are by and large overlooked[6] in the planning process of climate change and development paradigm. An attempt is made in this article to know the perceptions of the people, particularly, marginal sections of the society having diversified socio-economic background such as; agriculturists, animal husbandry, fishermen, etc. It tries to examine what kinds of difficulties/problems faced by the common people in redefining their way of life in the changed circumstances.

It also commented on the working of the State, its apparatus, corporate sector, civil society organisation, and local elected panchayat bodies towards the resilience of adverse environmental situation. The data was largely drawn from authors' Master of Philosophy (MPhil.) dissertation carried out in the year 2012. Total 59 i.e. 14 percent sample families (SFs)[7] were selected from village Hajira by using systematic sampling method.

Modernisation Activities in Gujarat with Special Reference to Hajira

Following the economic reforms in 1991, India has adopted the structural adjustment package (SAP) designed by the International Monetary Fund and the World Bank to move towards a deregulated open economy to get integrated with the global economy as a solution to its basic problems of low growth and structural mass poverty. Development policies including industrial policy in India in the post reform period have been formulated in accordance with this paradigm. (Hirway I., 1998).

After introduction of the new economic policy (NEP) in 1980s, more and more emphasis has been given to the industries, particularly the massive one. Gujarat can be said as one of the leading states throughout the country. Gujarat itself is experiencing phenomenal increase in investments both from mega- industrial sectors within the country and also from multi-national abroad. The coastal belt of Gujarat experience rapid growth in terms of massive industrialisation, infrastructure development and urbanisation in post liberalisation, privatisation and globalisation (LPG) era.

The Government of Gujarat (GoG) plan out total 55 SEZs in Gujarat (Table 1). It requires total area of approximately 27,125 hectares of land. GoG has initiated various incentives to boost the process of industrialisation in the State. Total 12 special investment region (SIR)s 8 are already declared under the SEZ Act.

Table 1: Information about the SEZs in Gujarat: An Overview

Types of SEZs	No	Covering Land (hector)
Operational	3	506
Notified and operational	7	9810
Notified	15	6114
Approved	22	7702
In principles approved	8	2993
Total	55	27,125

Source: Industries Commissionerate, Office of the Industries Commissionerate, GoG.

Industrialisation in Hajira

The investment pattern shows that it has mainly concentrated in and around existing or potential port sites. Hajira, Dahej, Dholera, Jamnager, Mundra, etc. have emerged as the major industrial pockets in the costal belt of Gujarat.

Hajira, witnessed phenomenal growth in terms of industrial activities, resulting in mammoth investment in very strategic areas. It is estimated that total capital investment of Rs.350, 000 million will be made in Hajira Development Authority (HADA)[9] area (2003). This is expected to rise to over Rs.500,000 million of investment in the near future -2025. Two SEZs are proposed in the HADA region. Hajira and Magdalla ports in the district provide logistic support to industrial operations in the state. Table 2 shows the prominent industries in HADA area.

Large scale industrialisation has taken away major portion of land in and around Hajira village. The lands were taken by applying various techniques such as; acquisition, purchase, grabbing, encroachment, etc. for various purposes including erection of plants, construction of roads, railway, warehouses, townships, ancillary units and other logistic purposes. Socio- economic profile of HADA area suggests that majority of the affected population belongs to the socially, educationally backward caste (SEBC)s[10] and relatively of low educational background. They do not have much say in the state politics. (Patel A., 1994; Archrya, A. 2000; Mahdeveia D. 2012).

Table 2: Spatial Spread of Industries in the HADA Area

Name of Village	Industries
Mora	NTPC, L&T, Reliance, ONGC
Damka	Kakrapar Irrigation Canal, Reliance
Bhatlai	Diamond Cutting Units (12 Nos.)
Suvali	L&T, Pipeline
Vansva	Gujarat Industrial Development Corporation (GIDC)
Icchapor	GIDC
Magdalla	ONGC/Roads/IOC/CRPF
Bhatpor	CIDC/LPG Plant-Gas Terminal
Kawas	GIDC/KRIBHCO/ONGC/NTPC
Hajira INA	KRIBHCO/LNG Terminal/EASSAR[11] Steel/EASSAR Power
Magama	GIDC
Asarma	GIDC
Palanpor	GAIL
Pal	GIDC
Bhata	GIDC

Source: Lobo Lancy and Shashikant (2009).

Emerging Issues of Industrialisation in Hajira

In all, the study has identified four types of issues that have emerged due to the displacement through the industrialisation in Hajira. They are: 1) emergence of environment risks (pollution and health risk), issue of livelihood (landlessness, impact on animal rears, share croppers, joblessness, landless laborers, 2) issues of fishermen, employment in industry, fishermen, 3) issues of migrant laborers), 4) issues of gender, issue of food insecurity and impoverishment / marginalisation.

Emergence of Environment Risks

In this sub section two aspects of environment[12] are discussed; one pollution and another is of health. In Hajira, air pollution is one of the major problems.

Pollution Risk

Pollution is the unavoidable consequences of industrialisation. In the words of one of the respondent of Hajira, 'the pollution in the village is so much that once upon a time the Hajira was famous for the fresh air[13] and longevity of the life but now a day it has turned to reverse'. Another respondent told in his interview that `if one wants to die early, he should stay at Hajira'. Hajira is polluted so much that many people have left the village and settled in nearby Surat city. The general feeling among the villagers is that one or the other day people have to vacate this village.

Types of Pollution

Table 3 describes the type of pollution the SFs experienced in Hajira. Majority (more than 90 percent) SFs in Hajira are experiencing effects related to air, noise, water and land has increased. Acharya A. (2000) noted in his study of HADA area that villagers say, 'Sometimes the surrounding plants create a tremendous amount of noise. We cannot even talk at home. Moreover, the irritating smell of gas suffocates us.'

Table 3: Opinions of SFs of Hajira about Pollution

Particulars of Pollution	Increased	Decreased	Remained as it was	N
Air	59 (100.0)	0	0	59
Noise	59 (100.0)	0	0	59
Water	54 (91.5)	0	5 (8.5)	59
Land	58 (98.3)	0	1 (1.7)	59
Food/ vegetables	59 (100.0)	0	0	59

Source: Survey data from sample village, 2012.

Note: Figures in parentheses represent values in percentage.

Extent of Pollution

The roofs as well as the floors of the houses are fully contaminated with the coal dust. The air is also polluted. The particulate presence in the air near was so high that one could feel the dust while breathing[14]. Land also turned into uncultivated. Similar is the case with water. Because of the ships, the river Tapi got polluted[15].

Migrant Labor added Dirtiness In the Village

Due to industrialisation in and around Hajira village in-migration[16] took place in a big way. Thousands of workers especially unskilled workers from various states of the country have also immigrated in Hajira. They usually stay in a make shift houses and form the slum[17]. The migrants generally live in a high density. Due to the arrival of the migrant labourers the dirtiness has increased in the village. It has given berthing ground to grow mosquitoes, flies and other insects. It has raised health problem too.

Health Risk

In Hajira, many SFs suffered from different diseases due to the pollution. (Table 4). The cancer cases are also very much on rise in Hajira. The local people breathing small iron particles daily.

Table 4: Perception of the SFs of Hajira about the Status of Illness/Disease After the Arrival of Industries

Illness/ diseases	After Industrialisation			N
	Increased	Decreased	Remained as it was before	
Cough	56 (94.9)	0	3 (5.1)	59
Cold	57 (96.6)	0	2 (3.4)	59
Fever	52 (88.1)	0	7 (11.9)	59
Bronchitis	43 (72.9)	0	16 (27.1)	59
Burning in eyes	58 (98.2)	0	1 (1.8)	59
Hearing problem	39 (66.1)	0	20 (33.9)	59
Skin problem	51 (86.4)	0	8 (13.6)	59
Weakness in the body	51 (86.4)	0	8 (13.6)	59
Body pain	51 (86.4)	0	8 (13.6)	59
Miscarriages	8 (13.6)	0	51 (86.4)	59
Cancer	58 (98.2)	0	1 (1.8)	59
T.B.	47 (79.7)	0	12 (20.3)	59

Source: Survey data from sample village, 2012.

Note: Figures in parentheses represent values in percentage.

All the respondents revealed that the illness/ diseases either it has increased or `remained as it was earlier, i.e.; prior to industrialisation'. (Table 4). Majority of them told that the illness like burning of eyes, hearing problem, cough, cold, bronchitis, fever, skin problem, weakness in the body, cancer, etc. have increased. The skin and the lung/bronchial related problems are found in big numbers[20].

Table 5: Illness / Diseases in Last One Year in the SFs in Hajira

Particulars	Response	Frequency	Percentage
Sickness in last one year	Yes	42	71.1
	No	17	28.8
	N	59	100
Place of treatment	Government Clinic /Hospital	2	3.4
	Government Clinic	0	0
	Clinic of Industry	17	28.8
	Hospital of Industry	1	1.7
	Private Hospital	27	45.7
	Private Clinic	12	20.4
	N	59	100
Person in the family died in last one year	Yes	15	25.4
	No	44	74.6
	N	59	100

Source: Survey data from sample village, 2012.

Note: Figures in parentheses represent values in percentage.

Table 5 shows that, 70 percent SFs witnessed illness such as; cancer, skin disease, Human immunodeficiency virus infection and acquired immune deficiency syndrome (HIV/AIDS), heart attack, blood pressure, malaria, fever, chest pain, eye problem, throat problem, dengue, swine flu, chickengunia, death at earlier age, problems related to ear, lungs, kidney, stone, asthma, jaundice, etc. after industrialisation.

A retired teacher of Hajira told in his interview that `after the arrival of industry, the incidents of diseases have increased'. Many people of Hajira area are now suffering from dangerous diseases like cancer, dengu, HIV and other diseases. 'Earlier we did not find disease like Tuberculosis (TB), diabetes, and blood pressure but now we find this type of patient in many houses'. Another respondent said, "people of Hajira are living in Danger Zone[18]'. Citing the reason[19]s of the spreading of the cancer disease he stated that the industrial production is primarily based on coal it constantly emits carbon monoxide, fly ash, silicon etc. Constant iron particles are also released in to the air also causes many health related problems. The SFs also alleged that the problem of health and hygiene have aggravated due to the influx of migrant population. The pollution had adversely impacted on the economic earning of the SFs. (Table 6).

Table 6: Opinion of the SFs of Hajira Regarding the Impact of Pollution by the Industrialisation

Particulars	Category	Frequency	Percent
Perception regarding the impact of pollution	Loss of agricultural crop	58	32.4
	Loss of animal husbandry activity	19	10.5
	Loss of fishing activity	53	29.4
	Reduction in the days of employment	50	27.7
	*Multiple Reponses (N=59)	180	100

Source: Survey data from sample village, 2012.
Note: Figures in parentheses represent values in percentage.

Impact on Livelihood Pattern

The process of industrialisation and urbanisation has forced the people of HADA to change their livelihood pattern drastically. They are force to shift from farming activity to Non- farming activity. Prior to industrialisation the people of Hajira were earning their livelihood mainly through farming, fishing, agriculture labor work, animal husbandry, etc. but all these have reduce significantly due to industrialisation in Hajira.

Table 7 indicates that more than 90 percent SFs who are agriculturists and agricultural labourers have stopped their traditional occupations due to the arrival of industries. In case of animal husbandry and fishing, it has reduced to 68 and 33 percent respectively.

Table 7: Change in the Economic Activities of the SFs in Hajira

Occupation of the members of the SFs	Before Industrialisation	N	After Industrialisation	N	Difference
Agriculture	43	59	1	59	-42 (-97.7)
Animal Husbandry	33	59	11	59	-22 (-66.7)
Agricultural labor	43	59	4	59	-39 (-90.7)
Fishing	21	59	15	59	-7 (-33.3)
Government Job	1	59	1	59	0
Jobs in Industry	0	59	33	59	+33 (+100)
Contract work	0	59	1	59	+1 (+100)
Scrap collection work	0	59	22	59	+22 (+100)
Rental income	0	59	1	59	+1 (+100)
Unemployed	0	59	1	59	+1 (+100)
Other*	6	59	15	59	+9 (+60)

Source: Survey data from sample village, 2012.
Note: Figures in parentheses represent values in percentage.

* It includes services in Indian merchant navy, job in power loom, pension. Jobs n Choriyasi dairy, driver, shop, lari-galla, house maid, vegetable selling, and insurance agent.

** Multiple responses, the HoHs engaged in multiple economic activities.

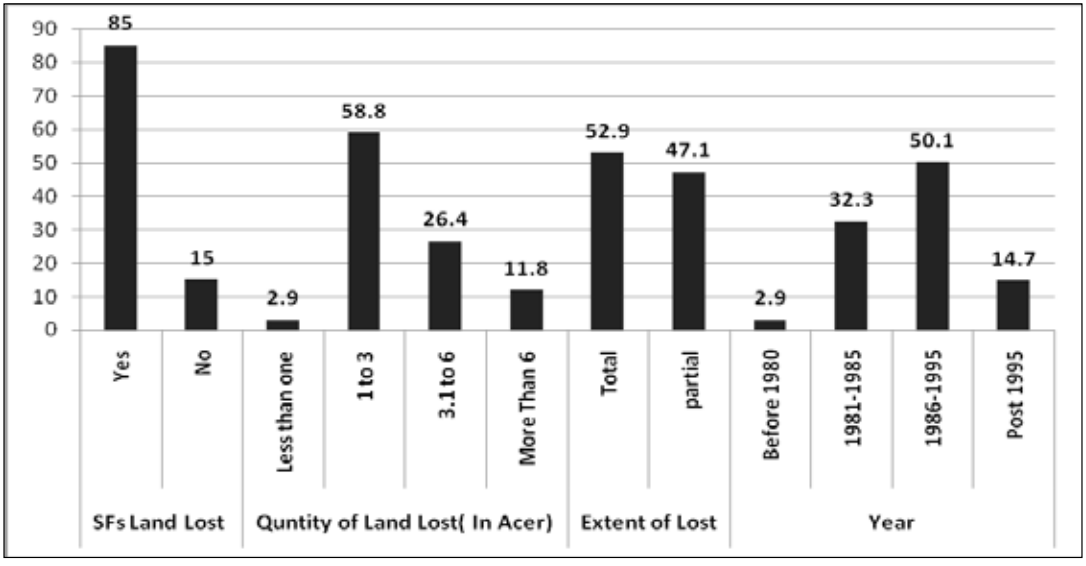
The people have shifted to the temporary job in industry, working as a contractor, drivers, peon, watchman / security man, running tea-stall / shop / dhaba, income from renting house, scrap collection work, housekeeping work, working as maid servant, vegetable vendors, working as a insurance agent, etc. Of course they are facing many difficulties in adjusting[20] with the new occupation.

Landlessness

As per the HADA plan total 5,267 hectares of land of 18 villages covered under industries and its allied activities. The land acquired[21] for different purposes such as for erection of plants, construction of roads, railway, warehouses, townships, ancillary units, etc. (Lobo L., Shahikant K., 2009). About 80 percent of the private and government land of village Hajira has been acquired[22] for development of industries and its allied activities. It has changed the livelihood pattern drastically.

Prior to industrialisation majority of the families of Hajira were emerged in agriculture but due to the coming of industries. 85 percent of them lost land. Out of SFs, lost the land, 53 percent of them have become completely landless, whereas 47 percent have either turned to small or the marginal farmers as they have lost `partial' land. Majority of the farmers have lost land between 1 to 6 acres (Chart 1).

Chart 1. Land Lost to Industries by SFs of Hajira



Usually, the cash compensation paid only to those families who have directly lost their land. The families who dependent on such land, indirectly are not paid any compensation. It has aggravated their difficulties. Besides, the farmers are less habituated with handling of the cash have spent cash compensation towards unproductive manner[23]. (Table, 8). Hardly few families have purchased land. This has happened in other projects too (Patel A., 1994; Hirway, I., 1998).

Table 8: Use of Compensation Money by the SFs of Hajira

Compensation	Particulars	Numbers	Percentage
Use of Compensation	Purchased land in another area	3	
	Built new house	16	
	Fulfillment of Social ceremony such as marriage, death, child birth, etc	18	
	Started new business	1	9.4
	Purchased Two/three/ Four wheeler	4	50.0
	Repayment of debt	3	56.2
	Any other**	12	37.5
	N* = 32		

Source: Survey data from sample village, 2012.
Note: Figures in parentheses represent values in percentage.

* Total 32 SFs have received compensation but they have used it more than one purpose. Hence, Multiple Reponses.

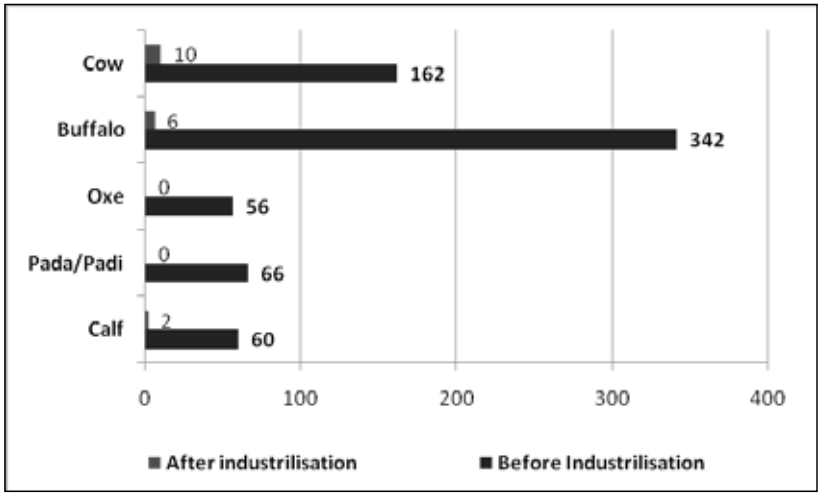
** Other includes Consumption, Sickness expenses, domestic expenses, purchase of house, etc.

Impact on Animal Rears, Share Croppers, Landless Laborers

Due to the acquisition of the land not only the farmers but the inter-connected groups such as share-croppers[24], landless laborers, animal husbandry, fishermen, etc. also have lost their sources of livelihood direct and indirect manner. For instance due to the acquisition of land the farmers are unable to maintain the subsidiary occupation of animal husbandry as they are not in a position to access of the grass, which abundantly available prior to industrialisation in this area.

Chart 2 indicates that there is a drastic reduction in the number of livestock and the household (HH) s owning the livestock among SFs in Hajira. The numbers of SFs reporting rearing the live-stock have reduced considerably.

Chart 2. Reduction (before and after the land lost) of Cattle wealth by SFs in in Hajira.



Many of the villages of HADA villages sold their common land to the industries were left with much reduced land for grasing than what is required as per the norms. This has also created repercussion on the job situation in Hajira.

Impact on Fishermen

As mentioned earlier, the industries as well as three Ports in Hajira have acquired most of the vacate seacoast land where the fishermen belong to Machhis, Halpatis and Kolis used to catch fish through the *Paghdia*[25] method. This has drastically changed the fishing activities. Few fishermen were paid cash compensation and they are forced to do written agreement stating no right over the sea coast for fishing. Their licenses allowing them for fish-catch were also taken by the industries. Like in the case of farmers, the fishermen have also spent the cash compensation in unproductive manner[26]. The Halpatis, locally called Dubala, remained deprived of any compensation, in spite the fact that they have been engaged in fishing since many generations[27].

Nearly 58 percent out of total fishermen families have abandoned fishing occupation after the industrialisation in Hajira. (Table 9).

Table 9: Fishing Activities Among the SFs of Hajira

Fishing Activity	Response	Frequency	Percentage
SFs engaged with fishing before industrialisation	Yes	26	44.0
	No	33	56.0
	N	59	100
SFs Abandon fishing	Yes	15	57.7
	No	11	42.3
	N	26	100

Source: Survey data from sample village, 2012.
Note: Figures in parentheses represent values in percentage.

All, the fishermen who told that the quantity of the fish catch has reduced (Table 10). It was happened mainly due to the pollution by the chemicals, dragging/ filling activities and noise pollution in the sea. Certain[28] type of fishes are not available, quantity of fishes have also reduced after the industrialisation.

Table 10: Impact on the Fish Production on the SFs of Hajira

Fishing Activity	Response	Frequency	Percentage
Reduction in the quantity of fish catch	Yes	26	100.0
	Reduce 25-50%	2	7.7
	Reduce more than 50%	24	92.3
	N	26	100
Reduction in income from fish sale	Yes	26	100.0
	Reduce 25-50%	2	7.7
	Reduce more than 50%	24	92.3
	N	26	100

Source: Survey data from sample village, 2012.
Note: Figures in parentheses represent values in percentage.

This has also reduced the job situation of the affected people of Hajira. (Table 11).

Table 11: Reduction In Work Days from Fish Catch

Fishing Activity	Response	Frequency	Percentage
Reduction in work days from fish catch	Yes	26	100.0
	Reduce 25-50%	2	7.7
	Reduce more than 50%	24	92.3
	N	26	100

Source: Survey data from sample village, 2012.
Note: Figures in parentheses represent values in percentage.

It has also impacted negatively to their earning and the numbers of work days. (Table 11). Nearly 87 percent fishermen told that their fishing instruments remained ideal.

Table 12: Changes Observed by the Agricultural Labor in Matter Related to their Work After Industrialisation in Hajira

Changes	Category	Response
Work days employment	Remained same	1 (2.9)
	Decreased	34 (97.1)
	N	35 (100)
Wages	Yes	35 (100)
	No	0
	N	35 (100)
Stop work as Agriculture labor	Yes	33 (94.3)
	No	2 (3.4)
	N	35 (100)
Members abandon the work	Less than 2	15 (45.4)
	3 to 6	13 (39.3)
	More than 6	5 (15.1)
	N	33 (100)

Source: Survey data from sample village, 2012.
Note: Figures in parentheses represent values in percentage.

Joblessness

As seen above, the cultivator has lost the land and it has impacted the job of the cultivators, animal rears, agricultural labors, etc. Likewise the dependency of the agriculture labourers has completely abandoned in Hajira due to the acquisition of land. (Table 7). All the farmers stopped calling agricultural laborer[29]. It is noticed that after arrival of industries in the village, the demand of labour has decreased by 97 percent across genders.

Economic Condition Worsened

In order to understand the impact of industrialisation on the SFs, the researcher had asked series of questions[30] were asked related to the economic condition of the family at the individual level and village as a whole. In other words, an attempt was made to know the impact of industrialisation through perception of SFs based on their own experiences.

Chart 3 shows more than 70 percent SFs reported that their economic condition of the family has either worsened or 'remained as it was before in the pre-industrialisation period'. Chart 4 indicates that nearly three-fourth SFs perceived that the condition of the village as a whole has worsened after the industrialisation. It is observed that the inequality[31] get sharpened due to the coming of the industries in Hajira.

Issue of Food Insecurity

The loss of land has also created the problem of food security. It is observed that these farmers who used to sell the grains and vegetables prior to before industrialisation have started buying these items from the open market now. It has so happened that due to the arrival of the industries in Hajira the animal breeders who used to sell milk to the village milk co-operative society.

Citing the example of the Halpati laborers, a SF stated, that earlier, when they were engaged in agricultural labor work they not only got wages but also other items like; vegetables, milk, curd, butter milk etc. at free of cost. Prior to industrialisation of this area, the Halpatis were also felt secured as they had protection from the farmers. Today the farmers themselves are in trouble and so they cannot give assurance of protection to the others

The fishermen also lost security cover that they were getting from the traders. It has also added to their misery.

Chart 3: Opinion of SFs of Hajira Regarding the Changes in the Economic Condition of Family

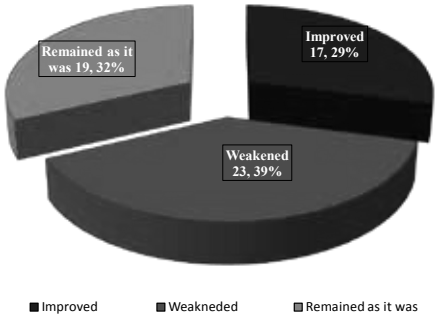
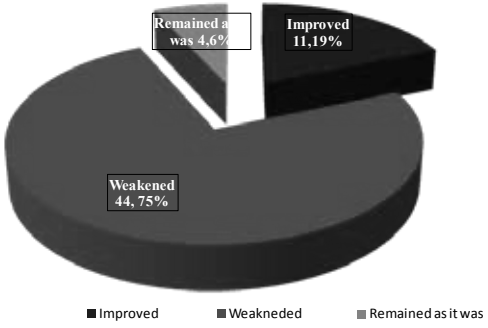


Chart 4: Opinion of SFs of Hajira Regarding the Changes in the Economic Condition of Village



Issue of Gender

One of the most striking adverse consequences of the industrialisation in Hajira is that the burden on women has intensified significantly. Apart from their domestic[32] responsibilities, women are performing, a range of economic activities to support their families. These activities are of five types; growing and selling vegetables, animal husbandry and sale of milk, farm work, fishing, and working as maids in industrial townships.

Women are also found running tea stalls near the industrial plants as well as retail shops selling cigarettes, bidis, biscuits, gut-kha, bengals, combs, etc. Most have taken on loans from friends and relatives in order to set up these shops. As they are on heavy traffic routes, they usually get a good number of customers but cannot make much profit out of these activities[33].

If one go in the village one will finds that the youth generally found ideal and playing card at the village common place. In absence of appropriate work the men are sitting ideal and many of the have indulge with the habit of consuming alcoholism. The numbers of widow is quite high in the villages of HADA area.

Issues of Migrant Laborers

People of Hajira felt that their problems have increased due to the arrival of the migrant labourers in their village.

Programs Initiated for Resilience of Risks

Generally the programs initiated under the Corporate social responsibility (CSR) are mainly revolved around the development of the infrastructure related to civic amenities at the village level. Infrastructure is necessary for the development of local people but it is not their priority. Instead they have different type of priority, of course at individual level but the industries do not pay attention to it.

State efforts with reference to working of the Gujarat pollution control board (GPCB)**.** Table 11 shows that all the SFs dissatisfied with working of GPCB. SFs alleged that the GPCB is totally inactive as they have close connivance with the industrialist lobby. The officials didn't bother much about the project affected people as many of them are corrupt. It is to be added that as per the Coastal region protected zone (CRPZ) regulation; industries should located itself at the distance of 20 kms far from the human habitat. Despite of all rules regulation, industries are located itself in Hajira village. The issue of violation of provision made under CRPZ Act was time and again raised before the district and state administration but in vain. The people strongly felt that the massive flood occurred in the year 2006 in Surat, incurred loss of billions of rupees for which the illegal activities of filling up the river and the sea coast near Hajira is largely responsible.

The SFs of Hajira registered their complaint to the collector / GPCB / sarpanch etc. but no one is responding positively. People are very much annoyed with attitude of the local officials and the industrialists. 'Our water, land, houses, air, noise all have contaminated through industrial pollution but who will bother? All the works done through bribe', one respondent told in his interview. The local people wonder that 'How such most dangerous plants like ESSAR are given permission? One can see the heaps of coal at the very entrance of village Hajira, How such permission can be given?'.

Table 13 shows that majority, 95 percent SFs are unaware about the steps taken for the prevention of the pollution. Those few SFs were aware about the same unsatisfied with the steps taken. The respondents revealed the fact that industrialist never visit to the village at time when the dirty /rainy water enters in their home in monsoon season[34]. The officials don't take any action to prevent the pollution.

Role of Civil Society

In Hajira, two NGOs viz; Lok Vikas Sanstha, Icchapore (LVSI) and Parivartan Sanstha, Surat working for the betterment of the affected people of Hajira area. Both the NGOs are working in specific focus areas like education, health, general development etc. LVSI has also initiated vocational training to the SFs of Hajira, to upgrade the skill of people to prepare them for the new jobs in the industries and thereby earning the livelihood for their sustenance[35] of their family, some of the industries have initiated training program[36]s like tailoring, computer etc. for the village people but the data shows that the training has not yielded the desired result.

Table 13: Opinion of the SFs of Hajira Regarding the Impact of Pollution by the Industrialisation

Particulars	Category	Frequency	Percent
Knowledge regarding the steps taken by the industries for preventing the pollution	Yes	3	5.1
	No	56	94.9
	N	59	100
Type of Steps taken	Grown trees	3	100.0
	N	3	100
Satisfied with the steps taken by industries	No	3	100.0
	N	3	100
Satisfied with regards to the working of the GPCB	Yes	0	0
	No	57	96.6
	Don't know	2	3.4
	N	59	100
Reasons* for the dissatisfaction with the working of the GPCB	No one visiting for the Preventing the pollution	42	61.7
	In monsoon they reduced water level	2	2.9
	Corrupt officials	21	30.9
	Dust increased in the house	1	1.5
	Occasionally steps taken for preventing the pollution	2	2.9
	*Multiple Reponses (N=59)	68	100
Satisfied with step taken by the industries for preventing the pollution	Yes	0	0
	No	2	100
	N	2	100
Satisfied with the working of GPCB	Yes	0	0
	No	59	100.0
	N	59	100

Source: Survey data from sample village, 2012.
Note: Figures in parentheses represent values in percentage.

* Multiple responses

It was revealed by the SFs that this training program was an attempt from the industry to create a goodwill atmosphere among the villagers. LVSI also works on the issue of AIDS among the migrants. It has also initiated training on the use of the sewing machine, computer education, dance, etc. during the talk it was revealed by the SFs are not happy with the working of the NGOs.

Grievances / Peoples' Resistances

Lot of frustration of the local people prevails regarding the whole affairs going on at the village level. It is to be noted that the local people are not made the part of the developmental project. This attitude has created problem in general.

Non-Involvement from the Decision Making Process

It is revealed from the table 14 that the industries have not allowed the local community to participate in the decision making process with regard the civic amenities. The decisions such as what sorts of amenities are necessary for the village, where it should be located, the types of the amenities, the allotment of the contract work, supervision during the work, issues about maintenance etc.

Table 14: Opinion Regarding Participation in Decision Making at the Village Level of the SFs of Hajira

Amenities	Satisfied	Dissatisfied	Neither Satisfied nor dis-Satisfied	N
Participation at the level of Planning	5 (8.5)	53 (89.8)	1 (1.7)	59
Participation at the level of Implementation	5 (8.5)	52 (88.1)	2 (3.4)	59
Participation at the level of allotment of contract	2 (3.4)	56 (94.9)	1 (1.7)	59
Regarding the quality of work	6 (10.2)	50 (84.7)	3 (5.1)	59

Source: Survey data from sample village, 2012.
Note: Figures in parentheses represent values in percentage.

From planning to implementation the local community were not given due participatory powers in decision making, therefore people do not think that this work belong to their `own'.

People felt betrayed as they were kept in the abeyance[37] about the whole process of land acquisition. No one panchayat, Government, industrialists etc. had informed them about what is going to happen and about the details of the process. In such grave situation many people felt demoralised. In the word of the one villager he said, `the companies, the government, the industrialists and the leaders have cheated and looted us in the day light'.

Table: 15 Dissatisfaction Regarding the Issues of Displacement and Resettlement of SFs in Hajira

Particulars	Satisfied	Dissatisfied	Neither Satisfied nor dissatisfied	N
Awareness about the of land acquisition Act	2 (3.5)	54 (91.5)	3 (5.0)	59
Land Acquisition Process	0	57 (96.6)	2 (3.4)	59
Process of calculating compensation	0	58 (98.3)	1 (1.7)	59
Industrial job policy towards the local people	1 (1.7)	53 (89.8)	5 (8.5)	59
Quality of the Civic amenities provided by Industries	6 (10.1)	51 (86.4)	2 (3.4)	59
Program carried out by the industries as a part of social responsibility	5 (8.5)	53 (89.8)	1 (1.7)	59
Services provided by the Industries	5 (8.5)	51 (86.4)	3 (5.1)	59
Overall experiences of the Industries	2 (3.4)	49 (83.0)	8 (13.6)	59

Source: Survey data from sample village, 2012.
Note: Figures in parentheses represent values in percentage.

Dissatisfaction of the Village People

Data suggests that the SFs are very much dissatisfied with the whole process of displacement and resettlement[38]. Table 15 shows that more than 80 percent of the SFs expressed their dissatisfaction towards the displacement and resettlement process, which includes awareness about the land acquisition Act, land acquisition process, process of calculating compensation, industrial job policy towards the local people, quality of the civic amenities provided by industries. Program carried out by the industries as a part of social responsibility, services provided by the Industries and overall experiences of the industries.

Around 97 percent SFs are dissatisfied with the land acquisition process, as their land was not taken amicably[39] (Table 15).

Protests Initiated by the People HADA Area

HADA region has witnessed seven types of such resistance on the issue of land, environment, Illegal encroachment, flood, loss of fishing activities, etc. (Table 16).

Table 16: Protest in South Gujarat

Sr.No.	Protest Against	Issues of Protest	Location
1	Special-Investment Region	Land acquisition	19 village of Olpad- Choryashi, Surat
2	Coal Care Depot	Land-acquisition, Environment pollution	Jiyav- Budia village of Choryashi, Surat
3	Gujarat Environ Protection & Infrastructure Ltd. (GAPIL)	Environment pollution	Sachin, Choryashi, Surat
4	Freight Corridor – Six Lane Highways	Land acquisition	Villages of South Gujarat
5	Adani Railway	Land acquisition	Village of Olpad- Choryashi, Surat
6	Agitation against Industrialisation in HADA area	Employment, Illegal encroachment, flood, fishing	HADA villages Choryashi taluka
7	Protest against Jems and Jewelry (GIDC)	Land acquisition GIDC	Icchapor village of Choryashi taluka

Source: Based on various unpublished information.

Protests Against the Issue of the Environment

In and around Hajira, the affected people time and again fought against the injustice made to them on the question of displacement, environment[40] and other issues. Very recently, tens of hundreds of villagers participated in the rally, which started from Khajod village and culminated at the district collector's office at multi storied building at Nanpura, where the leaders of the Parivartan Trust submitted a memorandum to the district administration demanding permanent closure of Gujarat Enviro Protection and Infrastructure Ltd. (GEPIL) within a month's time. The villagers, carrying placard against GEPIL and its owner Girish Luthra, shouted slogans demanding immediate closure of the company responsible for threatening the ecology and atmosphere in the coastal villages.

It is to be noted that due to the strong opposition from these villagers the authority had to roll back to its original plan and stopped the idea of setting up the of land to Coal Care Infrastructure Private Limited to set up a coal zone in about 4 lakh meters. A year back in 2011, the Hajira Kantha Vikas Sahakari

Mandadi (HKVSM) and the village heads of 14 villages of HADA area have launched a big protest on the issue of unemployment. Such protests also happened at various parts of India[41].

Concluding Remarks

The present article argues that in absence of proper policy and packages regarding the climate change, particularly of environmental problem, the 'quality of life' of the local people has deteriorated notably after following the development process through industrialisation. It has impacted adversely on their socio-economic matters. This development process has not only change the culture but it also affect the composition of the family, relation with neighbor and among family member. After arrival of industry the unity among village member is also deteriorated. In absence of proper work the male folk have turned towards the alcoholism. In some families women have become the only bread winner by doing scrape collection work and working as "Home maid" in township. The State and the corporate industrialists have given least attention to the aspect of displacement. The traditional set pattern of the life of the people gets shattered. It has created strong resentment towards the State as well as industrialists. Environmental problem became worrisome. It has resulted in compounding health risk. Majority; especially the vulnerable groups perceive that they have become the 'victims of development', which often reflected in the form of frequent protests/agitation. On the whole people are very much dissatisfied and alienated with the present state of affair which calls for immediate attention of the policy maker and the concerned authorities for the 'sustainable development'.

(Endnotes)

1 The severity of these problem depends largely on the quest for development, technological advancement, industrialisation and urbanization which causes unprecedented demands on the regenerative capacity of ecosystems and jeopardizes conservation of the environment.(Sahu: 2007, quoted in http://shodhganga.inflibnet.ac.in/bitstream/10603/63583/12/12_chapter%206.pdf).

2 India has witnessed a wide range of environmental movements such as Silent Valley Movement in Kerala, Chipko Movement in Uttar Pradesh, Aapiko Movement in Karnataka, Narmada Bachano Andolan in Central India, Gandhamardhan Movement in Orissa etc., which aim at halting environmental degradation or bringing about environmental restoration or regeneration or sustainable use of natural resources.

3 Environmental movements in Western Countries have emerged out of the concern for the conservation and protection of natural resources whereas in India it emerged only when the immediate livelihoods of the people were affected or threatened.

4 For instances Vasudha et al.(2002), Reddy I.U.B (1994) and Ray and Sashi (2011) have given few references of such studies.

5 The issue of Climate change has become very crucial as the whole planet is under threat. According to IPCC predictions, sea level can rise between 8-88cm between 2000-2100 AD (IPCC, 2001). A 1m rise in sea level will have massive impact on land up to 10m above current MSL. Almost two-thirds of the world's large cities with more than 5 million inhabitants are at least partly within Low Elevation Coastal Zones (LECZ). Mostly the Low income and middle-income nations have a higher proportion of their urban population within this zone than higher income nations; estimated nearly twice the proportion of their urban population in this zone, compared to high-income nations. Both urban disasters and environmental hotspots are already located disproportionately in low-lying coastal areas.

6 By and large the issue of Climate change primarily remained the subject of the Physical and natural sciences. It is observed that the social sciences, of course with the exception of economics, have

been remarkably silent in these issues concerning worldwide (Anders Blok & Margareta Bertilsson (ed.): 3, n.d.).

7 The sample chosen on the proportionate basis from various strata such as farmers, animal rears, fishermen, agricultural laborers, gender etc. based on socio-economic characteristics. The sample was selected on the basis of using systematic random sampling method after enumeration of the Census data of entire village.

8 They are: Delhi Mumbai Industrial Corridor (DMIC), Palanpur-Sidhpur-Mehsana Industrial Area, Ahmedabad-Dholera Investment Region, Vadodara-Ankleshwar Industrial Area, Bharuch-Dahej Investment Region, Petroleum, Chemicals & Petrochemicals Investment Region (PCPIR), Kalgam-Maroli-Khatalwada Industrial Area, Valsad-Umbergaon Industrial Area, Santalpur Industrial Area, Halol-Savli Industrial Area, Aliya Bet and Hajira-Pinjarat Industrial Area.

9 It was constituted in 1985 under Gujarat Town Planning and Area Development Act of 1963 for planned industrial development of area under its jurisdiction. Nine villages Hajira, Sunvali, Rajgari, Mora, Bhatali, Dmaka, Vansva, Kavas and Limla spread over 86 sq. km. come under HADA's jurisdiction.

10 SEBC was appointed under the chairmanship of Baxi, to identified backward in terms of socially, economically and educational other than the SCs and STs. SEBC. It has identified 82 caste as SEBC caste in Gujarat. Thereafter some more castes added in the list.

11 ESSAR Global Fund Limited is an Indian conglomerate group based in Mumbai, India. Essar began as a construction company in 1969 and diversified into manufacturing, services and retail. Essar is managed by Shashi Ruia – Chairman, and Ravi Ruia – Vice Chairman. Today, the company has expanded its global footprint, focusing on markets in Asia, Africa, Europe and the Americas.

12 The concept of environment is used here in a literary form means the surroundings or conditions in which a person, animal or plant lives or operates.

13 Hajira was famous for greenery and fresh air as it was surrounded by the sea and river. The Parsis have built sanatorium. The Rich people form Mumbai often comes for fresh air. The GoG has also developed tourist bunglow.

14 This was mainly because of the suspended particle emissions from the coal stacks and from the coal-handling plants (crushing and carrying pulverized coal) of these two collieries. The SECL had arranged for spraying of water on the road at specified hours to reduce dust but when the sprayer's effect wore off, people had a hard time.

15 The vessels generally carry the oily products and the acidic chemicals often washed on the bank of the river Tapi.

16 These industries primarily employ three categories of employees: (a) technical and professional persons, (b) production workers under the Wage Board 13 and (c) "other workers" which includes quarry workers, sweepers, and other unskilled workers. The first category of workers which includes scientists, technicians, supervisors, managers, accountants etc are usually from outside the district or outside the state. They are casual workers or contract workers. They receive low wages without any social protection, not even health protection.

17 The basic amenities such as drinking water, dispensary, electricity, educational facilities, road, drainage, etc are found poor. The basic facilities latrine, bathroom, drinking water etc found absent in their hut. Industries also not treat them as part of the village.

18 The people of Hajira gave their opinion that industrialisation has given birth to diseases like Cancer and AIDS. One Koli respondent told in his interview that there are many such cases found in the

village. He has also given the names of 3-4 persons who have died and of 8-10 persons are suffering from it, at present.

19 One of the middle aged respondent told in his interview that before the arrival of industries in Hajira lots of trees of tad, mangroves, and other trees were there in Hajira village and the village looked beautiful and green. All have lost due to the arrival of the industries.

20 Few local have started a small shop/ larri-galla and a small grocery shop as an alternative source of earning but they are finding difficulties in it, as they are habituated with such activities.

21 Due to the industrialisation people of HADA have lost their land. They lost revenue (private) land, Village common land (Pasture, sea coast), forest land, etc. for industrial as well as its associated purposes.

22 The land was acquired through diverse methods; by acquisition, purchase, grabbing, encroachment, etc. The landlessness has increased due to loss of land.

23 Either they have built the houses or they have spent money in fulfilling their social obligations.

24 Various methods are in practice for share-cropping. Usually the person who holds the land but staying outside of the village for one or the other reason give his land to others for cultivation.

25 This was the traditional method of fish catch. In this method the fishermen go to catch the fish through the walk and not using the boat or any other mechanized vessels for fishing. The poor and the middle class fishermen who do not afford to purchase the fishing instrument are generally using this method.

26 Similar observation was made by Indira Hirway (1998)in her study o f the affected village of the Ambuja Cement in the Surashstra region. Likewise Arjun Patel (1994)also observed the similar trend in his study of the affected people of NTPC of the the HADA belt.

27 Fishing provides good sources of survival to many people living in the coast. Hundreds of families, who are socially, educationally and economically poor, were directly and indirectly dependent on these activities. Fishermen treated themselves as sea farmers. Though did not have any right over the sea legally but they were earning their livelihood since generations through these activities.

28 Among many fishes lost we have listed few. They are: Ramcha, Chiliya, Modar, Levta, Boi, Karachla, Bumla, Gingha, Dahangda, Palava, Poplet, Khut, Singada, Varkhla, Gal, etc.

29 Generally in Hajira area, the majority of the farmers are either small or marginal farmer. Much of the land lost in the industries and whatever little patch of land remained left un-acquired also become uncultivable due to the pollution by the industries and other development in the village.

30 The researcher was well aware that such direct question has many limitations even though it was asked to know their real life experiences on the basis he can make some kinds of statement about their condition.

31 Thus on one hand little section of the village people got benefited and changed their economic condition remarkably while at the same time sizable population of Hajira village deteriorated economically.

32 Women also have to take care of their domestic responsibilities which include arranging fuel for cooking and other needs. LPG cylinders, kerosene, and firewood are the principal fuels, though most women still rely on firewood. They cut wood from the nearby forest to last them for the whole year, although this is an illegal activity.

33 Other activities include selling knitted items, midwifery, teaching, or running a shop. Women who are involved in animal husbandry get up at 2.00 a.m. for milking because the dairy vehicle comes

early in the morning to collect the milk. They are paid Rs.12 per litre, and the milk is then sold at Rs.17 per litre in Surat. Some women sell vegetables both locally and in Surat.

34 People have complained that the industrialists have made their life hell. They cobranded the village from all the sides. Due to construction of the protection wall around the industries have stopped the natural flow of rain water that has created worrisome problem to the villagers.

35 It is to be noted that Shell Company has sponsored research work project to Centre for Social Studies, Surat to carry out the survey regarding the women's participation in income generation in Hajira area, in 2000. This study was carried out in four villages including Hajira, Mora, Suvali and Junagam. Out of total 400 selected SFs, 200 SFs were selected from village Hajira. 44 percent of SFs were not interested in any kind of training. 37 percent have given preference for tailoring work. 12 percent have shown interest in knitting or needlework and 3 percent have shown interest in computer training and 3 percent interested in papad and pickle business, remaining 1 percent in bamboo work.

36 Seven SFs have reported that a family member has received the training. This training was of tailoring work and it was given by LVSI funded by the Shell Industry in 2003-04. The duration of training was three to six months. The trainees were not given any stipend and they were not offered jobs.

37 They did not have much knowledge of land acquisition. They were not aware of the notifications issued by the collector and they did not know much about the public hearing. No one has informed them about all such procedures.

38 Another respondent from Hajira added that the award (of land acquisition) was totally false, it demarcated the land, which had not come under their preview'. The industries or the Government have directly given notices and started procedures for land acquisition by using the `eminent domain of which many of the local people were quite ignorant.

39 During filed work, it was revealed by the village people that in few cases, the industries have also used the force for taking away the land of the local people.

40 In December-2011, the GPCB had exposed two illegal pipelines from an Integrated Common Hazardous Waste Management Facility (ICHWMF) operated by GEPIL to dump untreated industrial waste into Unn rivulet. Following the expose, the GPCB had issued an immediate closure notice to GEPIL. The company is threat to ecology and atmosphere in the surrounding villages and the local people have fixed their goal to see that the company is closed permanently. It was said that due to the hazardous discharge of toxic waste material by GEPIL has led to the death of more than 200 buffaloes. In the mid- April this year 2012, large number of fish dead in KRIBHCO water body. Similarly, One of the farmers of the Gundardi Hamlet of Hajira told in his interview that he had lost 25 Cows because the animals consumed plastic. This had made the sea polluted and had affected marine life. It has also destroyed agriculture land too. On the same ground recently, the residents of coastal villages located from Sachin to Dumas, on the right bank of the river Tapi of Hajira village opposed the setting up of a coal depot on 4 lakh sq meters of land in Jiyav village in the area. The two main communities living in these villages, Koli Patels and Macchi, have come together to oppose any move to set up the depot which they feel will ruin their agriculture and cattle breeding activities, besides harming the environment. It will also cause huge dust pollution, leading to respiratory ailments.

41 EPW has published numbers of such protests from time to time. For instances in Singur and Nandigram, Polavaram Project, Dantewada, Tata Motors in Singur, TISCO Project, Mining `Development', and MNCs (see: Guha Abhijit, (2007), Rao Palla Trinadha (2006), Patnaik Prabhat(2007), Mishra Banikanta (2006),

References

Acharya, A.(2000). Women Participation in Income Generation in Hajira Area, *Mimeo*. Surat: Centre for Social Studies.

_____ (February 2003). Land acquisition, Employment Loss, and Women's Participation in Income Generation in the Coastal Belt of South Gujarat, *Development in Practice,* 13(1).

Bhaven, T. et al.(2011). *Urban Corridor Noise Pollution: A Case study of Surat City, India.* International Conference on Environment and Industrial Innovation, IPCBEE, (12), Singapore: IACSIT Press.

Das, V. (1995). Development or Destruction? New Mining Projects in Orissa, *Economic and Political Weekly*, 30(22), pp:1281-1282.

Gosh, P.(2013). Equity in Climate Change: a Suggested Approach, *Economic and Political Weekly,* 48(12).

Guha, A.(2007). Peasant Resistance in West Bengal a Decade Before Singur and Nandigram, *Economic and Political Weekly*, 42(37), pp:3706-3711.

Guha, R.(2007). Adivasis, Naxalites and Indian Democracy, *Economic and Political Weekly.* 42(32), pp:3305-3312.

Gupta, D.(1979). *Scarcity and Market Dependence in Damka: A Portrayal of Kisans in an Atypical Village, Mimeo.* Surat: Centre for Social Studies.

Hirway, I. & Dashni, M. (2004). *Gujarat Human Development Report*, Ahemadabad: Mahatma Gandhi Labour Institute.

_____ (2002). *Dynamics of Development in Gujarat*,

_____(1998). Paradigms of Development: Issues in Industrial Policy in India, *Working Paper No.* 22(1).

_____(1994). Environmental Movements in India, *Geographical Review,* 84(1).

_____(February 2003). Land Acquisition, Employment Loss, and Women's Participation in Income Generation in The Coastal Belt of South Gujarat, *Development in Practice,* 13(1).

IPCC TAR WG3 (2001), Metz, B.; Davidson, O.; Swart, R.; Pan, J., eds., Climate Change 2001: Mitigation, Contribution of Working Group III to the Third Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge University Press

J. Sathaye & Ravindranath (2006). Climate Change, Sustainable Development and India: Global and National Concerns, *Current Science,* 90(3).

Lobo, Lancy (2009). Development Induced Displacement in Gujarat. In L. Lancy and K. Shashikant (Eds), *Land Acquisition, Displacement and Resettlement in Gujarat* 1947-2004. New Delhi: Sage Publication India Pvt. Ltd.

Mahadeveia, D. & Hirway, I.(n.d.). [Available at: http://www.ncap.res.in/upload_files/workshop/ws5_article6.pdf.] [Accessed 15-4-2012].

Mishra B.(2006). People's Movement at Kalinga Nagar, *Economic and Political Weekly*, 41(7), pp:551-554.

Padel, F. & Das S. (2010). *Out of this Earth: East India Adivasis and Aluminum Cartel.* New Delhi: Orient Blackswan Pvt. Ltd.

_____, (2009). *Sacrificing People: Invasions of a Tribal Landscape*. New Delhi: Orient Blackswan Pvt. Ltd.

Patel, A. (1994). *Socio-Economic and Demographic Survey of PAFs of the NTPC Project at Kawas, Mimeo.* Surat: Centre for Social Studies.

Patnaik P.(2007). In the Aftermath of Nandigram, *Economic and Political* Weekly, 42(21), pp:1893-1895.

Punwani J.(2007). Traumas of Adivasi Women in Dantewada, *Economic and Political Weekly*, 42(4), pp: 276-278.

Rao, Palla Trinadha(2006). Nature of Opposition to the Polavaram Project, *Economic and Political Weekly*, 41(15), pp: 1437-1439.

Ray S., Saini S. (2011). Development and Displacement: The Case of an Opencaste Coal Mining Project in Orissa, *Sociological Bulletin*, 60 (1).

Reddy IUB. (1994). Industrial Development and Problems of the Uprooted, Jaipur: Rawat Publications

http://shodhganga.inflibnet.ac.in/bitstream/10603/63583/12/12_chapter%206.pdf

Sarangi Debaranjan (1996). People's Resistance to TISCO Project, *Economic and Political Weekly*, 31(13), pp: 809-810.

Sarangi Debaranjan(2004). Mining `Development' and MNCs', *Economic and Political Weekly*, 39(17), pp: 1648-1652.

United Nation's Development Programme. (1998). *Human Development Report.* New York: OUP.

Vasudha, D. & Verma (2002). *Industrial Development and Displacement: The People of Korba.* New Delhi: Sage Publication India Pvt. Ltd.

JGPP Journal of Governance & Public Policy
ISSN 2231-0924 Volume 7, No 2, July-December 2017 pp.60-68

Performance of Planning Boards in India: Evidence from Southern States

Deepa Kylasam Iyer*, Tanya Agrawal** and **Francis Kuriakose*****

Planning boards are autonomous institutions constituted at the sub-national level (called states) in India to aid and advise the government on preparing five year plans, annual plans and undertaking expert-based studies to examine the feasibility of plan projects at the local level. In addition to this, some planning boards are also entrusted with monitoring and evaluation of plan projects. Planning boards have an important part to play in formulating and implementing development plans. However, there is no uniform structure or functional mandate of planning boards in India. As a result, the actual mandate and performance of state planning boards are largely influenced by local contexts, government's priorities and the perception of bureaucrats about planning boards. This paper comparatively examines the ideas of structure and function of planning boards in the southern states of India through the perspective of bureaucrats about their functional mandate. The theoretical framework used is Lowe's theory of instrumental inference of planning institutions. Elite interview method is used to compare variables of performance. The paper argues that planning boards with well-defined functional mandate, autonomy from state government, presence of experts and involvement of local governments perform better than the others in development planning. Two distinct trajectories of development are evolving in the institutional context of planning boards - type I that resembles think tank mode of development and type II that looks for reforms within the traditional structures.

Keywords

Development Planning, Planning Board, Decentralisation, India

Introduction

There is a general sense of 'plan weariness' in many countries today. Economists of different doctrinal persuasions seem to agree that planning as experimented in several economies have not been a success (Friedman, 1962; Nozick, 1974). Economic planning requires structural changes that enable adjustment to changing external and internal factors. According to economists of neo-liberal persuasion, structural changes of the right magnitude and direction at the right time in the economy are not something state planning has succeeded in accomplishing (Friedman, 1962; Hayek, 1944; Munck, 2005). Therefore, state planning is thought of as an inefficient way of allocating stocks of productive factors among competitive users. The advent of opening the economy to global market forces has

* Deepa Kylasam Iyer is an MPhil Candidate at University of Cambridge, United Kingdom and can be reached at: deepakylasamiyer@gmail.com

** Tanya Agrawal is a public health professional with the Clinton Health Access Initiative (CHAI), New Delhi and can be reached at:Tanya.ag1290@gmail.com

*** Research fellow at International Institute of Social Studies, The Hague, The Netherlands and can be reached at: francis.kuriakose@gmail.com

instead brought in 'economic reforms' as the key idea in development studies, relegating state planning to a secondary status. In this context, it is relevant to examine development planning in the Indian context because India began its post independent decade on the promise of centralised state planning for development.

Historically, Indian planning was a carefully thought out exercise. After gaining independence from the British colonial rule in 1947, planning was viewed as a positive instrument that enabled three important objectives- (i) avoiding the unnecessary rigours of industrial transition that the rural masses of India was likely to experience, (ii) resolving conflict of resource distribution among sub national governments in India and (iii) initiating and managing structural changes that the economy demanded at the time to spur economic growth (Chakravarty, 1987). Specifically, India was deeply concerned with what was believed to be a principal constraint on its economic growth- the shortage of capital stock formation. The objective, targets and the implementation process of state planning, primarily led by the first Prime Minister Jawaharlal Nehru, was a lively product of this rationale. However, it is important to note that there were Indian thinkers who provided alternatives on planning in the Gandhian and liberal traditions in the early decades after independence (Nachane, 2014). Indian planning in its initial two decades (1950-1970) also benefitted from the rise of development economics as an academic discipline. This historical coincidence resulted in a rich two-way transaction- the emerging ideas of development economics influenced the Indian case and Indian planning experience also illuminated the theory of development planning.

Institutionally, India had recognised three levels of planning- the central level through the planning commission, the sub-national (hereafter state) level through autonomous planning boards and the district level through bureaucrats. At the central level, plans were formulated at the ministerial level with inputs from the departments attached to the ministries. The five-year plans and annual plans were part of this central level of planning. To resolve disputes at the inter-state level, there was a National Development Council that was headed by the Prime Minister. State-wise demands for budgetary allocation were presented to another institution called the planning commission that then recommended the allocation to the ministry of finance based on various prerogatives like backwardness, size of the state, regional balance of resource allocation and merits of the demand. There were a number of centrally sponsored schemes that were directly allotted under the central ministries in order to be implemented at the sub-national level. At the state level, the state planning boards were in charge of preparing annual plans, formulating plan priorities based on five year plans and setting development projects for the state. Here also, the allocation of resources was favoured based on regional parity and priority. These plan projects were then implemented by the district level bureaucrats.

Two important transformations have happened in the institutional structure of development planning in India both from the bottom and at the top levels since Nehru's times. One important transformation arrived with the 73rd amendment of the Indian constitution that devolved power to the local government called the Panchayat at a sub-district level. This amendment mandated that the sub-national governments take certain legislative measures to revitalize local governments through periodic election, representative reservation for women and people of the scheduled castes and tribes as well as devolution of government responsibilities. Today, development planning is as much influenced by the local demands as it is by centrally sponsored projects. Indeed, local democracy is seen as more egalitarian to direct participation from lower castes and genders, as a stepping stone toward greater democratic participation as well as an agent for social change (Drèze&Sen, 2012). However, at the Panchayat level, local administration has very low capacity to tax population and inadequate infrastructure to implement projects. The second transformation was the dismantling of the planning commission at the top. In 2015, the planning commission was replaced by the National Institute of Transforming India (NITI) Aayog. A historical analysis of the conditions that led to the replacement of

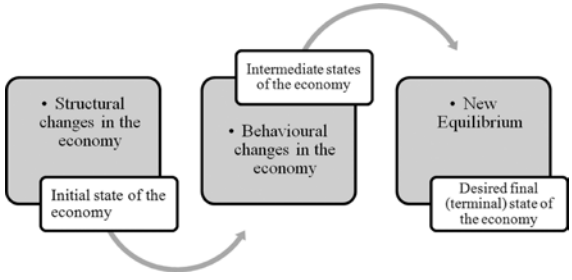
Planning Commission by NITI Aayog and its implications on decentralised planning has been examined (Sen, 2017). There have also been analytical studies on NITI Aayog as a strategic planning institution and on reorienting the plan process in a new direction (Mehrotra, 2014; Shah, 2014). Examining the role of state planning boards in relation to the changing national planning scenario is relevant in this context.

This paper examines the performance of planning boards of southern states of India by evaluating its functional parameters provided by bureaucrats who work with these institutions. The states examined in the study are Kerala, Tamil Nadu, Karnataka, Puducherry and undivided Andhra Pradesh (Telangana, a new state was carved out of Andhra Pradesh on 2 June 2014). Functional parameters of planning board performance are given by variables like degree of autonomy from state government, clear mandate of function, frequency of meetings, presence of external expert members and involvement of local government. Elite interviews with bureaucrats at the level of member secretary are used along with secondary data information about the planning boards. The paper argues that state planning boards with higher degree of autonomy and higher involvement of local governments are better placed to function well in development planning.

Development Planning and its Theoretical Evolution

Planning in a generic sense leads to the examination of alternative courses of action while making decisions. It takes into account the directional clarity of an organization, competing goals for limited resources, coping with unexpected shifts in environment and bringing together shared ideas of the future (Denhardt & Denhardt, 2009, p. 143). Analytically, the concept of development planning can be distinguished into two forms- as a form of 'instrumental inference' to attain the goals of development as set by the planner and as an alternative to market mechanism through 'command and fulfillment' (Chakravarty, 1987). The former is an active role that is usually backed by the state and the latter is a proxy role where the primary function of allocating resources is given to the markets. In the Indian case, for the first two decades, planning was viewed more in the former sense. Instrumental inference is a concept that is borrowed from institutional economics. In a study on instrumental inference in institutional economics, Lowe (1977) questions the demand-supply axiom of traditional economics, proposing an alternative paradigm of understanding the political processes that does not entirely rely on price mechanics. From this vantage point, he argues that instrumental inference of an institution brings to light the existence of desired states and a number of paths that lead to it. Planning consists of choosing of one or more pathways which can transform the initial states into desired terminal states (refer figure 1). This process is achieved in two broad stages- initially, by inducing structural adjustments in the institutional system and eventually by establishing behavioural patterns which will set the system on goal-adequate trajectories (Chakravarty, 1987, p. 42).

Figure 1: Lowe's model of Instrumental Inference



Source: Authors' compilation based on Lowe's Model

Analysing Indian planning processes through Lowe's model, a few inferences can be made. While Indian planning has been largely successful in setting a stable structure through structural adjustment, it has failed in fostering goal-adequate behavioural patterns. Why is this so? Chakravarty (1987) examines this question and conjectures three broad reasons-(i) the presence of rent maximizing behaviour in place of directly productive activities in the economy,(ii) the absence of learning effect, and (iii) the absence of sufficient information. All the three problems have been a result of either structural or behavioural factors. Kruger (1974) and Bardhan (1984) have examined the reasons for rent maximizing behaviour. Krueger's argument (Krueger, 1974) on rent maximising behaviour assumes that 'non-functional restrictions from a regulatory state' would systematically distort incentive structures. Bardhan (1984) has elucidated this point further by examining subsidies as a category of intervention and its effect on growth in India. The second problem, absence of learning effect, has also been seen in India. Learning effect, i.e., government intervention that encourages learning by doing has not been maximized in the Indian context. The third problem is that of asymmetric information. The information problem in the Indian economy creates persistent inability to assess the social value of a technological transfer. All the three problems can be rectified by using planning as a tool.

The discord between planning as a theoretical decision making exercise and a practical operating exercise has led to considerable friction between the objectives and strategies of planning itself as well as change and continuity from one plan to another. How does a plan model become a development plan? A development plan is an operating document that not only aims for a desired state of affairs and indicates directional changes as a plan model should theoretically; it also must pay attention to 'feasibility' on implementation. The problem of implementation is determined by the socio-economic landscape of the location and the informal constraints that planners face on the ground. From the perspective of the planning authorities, there are many implementation constraints-(i) inaccessibility to information or inefficiency in gathering data, (ii) time lag between plan design and implementation and (iii) inadequacy of capacity (manpower and motivation) to implement the project. Lipksy (1980) examines bureaucrats as decision makers functioning inside institutions. What emerges as agency in performance in institutions, Lipsky argues, is a result of two distinct circumstances. Bureaucrats have limited time and information while making public policy and implementing them. Therefore, beyond rules and regulations, what emerges as performance is the outcome of public policy devised as a result of essentially a political process by the institutions as well as individual improvisation at the bureaucratic level. The perception of bureaucrats is both part of the structure and functional aspect of any institution. This paper analyses planning board performance from this bureaucratic institutional perspective.

The traditional challenges of limited time and information faced by the planning authorities have been compounded by the increasing number and role of private players in formulating plans in India. The changing global environment that promoted globalization has advocated increasing openness of Indian economy to global interferences. The presence of international players and private entities has led to distinction between the way both function independently. For example, publicly owned agencies work on non-price signals like government orders and privately owned agencies work on profit-maximization models. Both public and private institutions also have different strategic and parametric behaviour patterns while planning.

In this context, decentralisation of development planning that includes local level representative institutions in the formulation and implementation of development plans is to be seen as a counter mechanism to the increasing role of extra-state players in planning (Oommen, 2006). Decentralisation is meant to facilitate greater efficiency of utilisation and equity in distribution of benefits from development. In the case of public institutions, decentralisation coupled with 'debureaucratisation' is advocated for autonomy of decision making and outcome-based performance. The process of decentralisation in this context is envisaged not to obviate the need for centralised planning but to strengthen the planning

process itself by relieving higher levels of planning from decision making and strengthening allocative decision making capabilities of lower level planning machinery (Rao, 1989). Since decentralised planning involves devolution of resources and responsibilities to sub-state level (district, block and panchayat), the politics of development planning becomes relevant. The way state planning board functions become crucial in this context because these are institutions that negotiate the interests of the locality to the pressures of centralising forces in planning, be it the state or the market. These two forces - external global players and decentralised local players - thus threaten the traditional role played by the bureaucrat. It is in this context, that this paper examines performance of planning boards.

Functional Mandate of Planning Institutions

Planning boards in each state in India is an autonomous body constituted to advise the state government in matters pertaining to planning and overall guidance in the formulation of annual and five year plans. The role of a planning board in a state was initially to channelize available resources in sector-specific and regionally equitable manner for maximum efficiency and productivity. The basic structure of the planning board consists of the state chief minister as the chair person, a deputy chairperson and a member secretary. There are official and non-official members of the board. The official members include the minister of planning, secretaries from inter related departments like finance, development and others as specified. This paper examines the planning boards in five states of southern India- Karnataka, Andhra Pradesh, Tamil Nadu, Kerala and Puducherry.

The understanding of the role and responsibilities of planning board has undergone changes since opening the Indian economy to global markets and state-induced structural adjustment. For instance, in Karnataka, the state planning board was established in 1993 to advise the government on matters relating to planning. Further objectives also included suggesting policies for optimum utilisation of natural and human resources, reducing regional imbalances, improving the investment climate, sponsoring research studies, recommending measures to improve decentralisation and reviewing implementation of plans. These traditional functions have undergone modification in recent times. Some of the new responsibilities envisaged include 'acting like a think tank charting out development process for the state, and integrating the entire gamut of activities from plan formulation, implementation, monitoring and evaluation'. The planning boards are also meant to have powers of overview on the schemes of other departments. This functional mandate requires infrastructural and institutional restructuring, including independence and autonomy of the planning board, inviting multidisciplinary specialists from various fields to head the departments and detaching the state planning board from the administrative control of state planning department.

Similarly,undivided Andhra Pradesh, the second state under study, has an interesting history on the evolution of its 'planning society'. As part of disaster management strategy, the state of Andhra Pradesh restructured its state disaster mitigation society as state development planning society after ten years of functioning to assist the planning department. As a development planning unit, this institution initiates expert-led studies, collects data from different departments, analyses inter-departmental and sector-wise planning activities, comes out with focus areas and assist in preparing action plans. Other objectives include generating alternative innovative strategies, conducting gap analysis, carrying out pilot projects, generating vulnerability mapping and building accurate disaster warning.

The third case is Kerala whose state planning board was established in 1967 to assist the state government in formulating a development plan based on scientific assessment of resources and a comprehensive economic review of the state every year. Eight divisions of the planning board are on plan coordination, agriculture, evaluation, social service, industry and infrastructure, decentralised planning, perspective planning and information and technology. In addition, there is a project financing cell to examine feasibility of outside funding including public-private participation of projects.

The fourth case study of Tamil Nadu state planning commission was set up in 1971 with functional mandate that included preparing five year and annual plans, undertaking mid-term review of five year plan, evaluating major plan schemes, monitoring development and undertaking special studies. The state planning commission also implements and monitors state balanced growth fund and coordinates the functions of the district planning cells. In the annual plans, state planning commission receives proposals from secretarial departments that prioritise development expenditure. There have been two major developments relating to state development planning. The first is the preparation of human development report focusing on the district as a unit of analysis, bringing to light intra-district disparity and challenges in human development attainment. This has also enabled the state to identify backward areas with respect to human development parameters like income, poverty, employment, health, education and gender. Special funds for focused intervention, preparation of perspective plan and annual action plan have been the priority. Resource institutions have been identified in each district to prepare perspective plans, annual plans and projects to address backwardness with the participation of district level officials and Panchayat representatives. Two specialised bodies like empowered committee to make suggestions and state level review committee to introduce monitoring including field visit to backward areas are present.

The fifth case study is that of Puducherry that has a special status as Union Territory. Union territories are administrative units in India that are under the direct supervision of the central government. Although union territories have governance structure with chief minister and lieutenant governor, in matters of development planning, they approach the ministry of home affairs and not the planning commission unlike their state counterparts. The budgetary allocation is made from the ministry of home affairs but the process of preparing documentation and implementing planning largely remains the same as states.

Analysis of Structural and Functional Perceptions

The study focussed on the five state planning boards in southern India with respect to the autonomy in their structure and function as experienced by the bureaucrats who worked with these institutions in a senior capacity (member secretary level). The method used to obtain information was through elite interviews. The interviews focussed on parameters that gave information on the variable 'effectiveness of structure' and that which gave information on the variable 'effectiveness of function'. The variable effectiveness of structure had parameters such as presence of technical members, perspective planning, perception of functional mandate, perception of independent evaluation and real-time monitoring. The variable effectiveness of function had parameters like method of appointment of its members, tenure security, frequencies of internal and annual meeting, freedom in setting agenda, perception of the government accepting its advice, perception of political interference as well as perception of ideas of reforming the institution.

The findings of the study indicate wide differences in the perception of effectiveness of structure and function of the respective planning institutions. On the structural front, defined boundaries of one's own function were significantly different. For instance, in Kerala, planning board was clear that it had no overlap of jurisdiction or dichotomous jurisdiction. Its functions as perceived by its bureaucrats included allocative function and developmental function. Allocative function was meant to convey distribution of resources and developmental function was defined as advisorial in policy forum. The planning board also had monitoring duties that it performed through monthly departmental orders sent to the various departments articulating how well plan objectives were met and informing the Chief Minister. In Tamil Nadu, its state planning commission specified functions that included plan related workshops, evaluation of reports, dissemination of information and implementation. On the other hand, some state planning boards experienced acute jurisdictional overlap with state planning department. In their

functional mandate, the bureaucrats described that in addition to preparing plan documents for five year and annual plan, they also formulated terms of reference for specific projects and preparation of result documents. One interesting outcome was that some bureaucrats perceived the planning boards as a 'think tank' of the chief minister. The idea of 'think tank' to generate ideas for good governance was commonly held in states which incidentally has greater investment by private players while others reflected their roles along traditional lines. The idea about long term plan called 'perspective plan' was understood and implemented only by Kerala state planning board. The perspective plan was for the period 2010-2030, with 15 crores allotted for fifteen development sector projects and 10 crores for information dissemination. All the other planning boards discussed vision document while discussing perspective plans.

On the presence of technical members, one state planning board had widely invited experts to head each of its departments. For instance, in Kerala for the discussion of a subject, the state planning board has invited two full-time and two part-time experts. This also facilitated greater acceptance rate of its advice by the government based on the criteria of expertise and impartiality. Tamil Nadu often invited experts to perform evaluation tasks. There were others who felt the absence of expert and technical advice. On monitoring and evaluation, some states had real-time monitoring of plan including digitised mapping of physical assets in addition to financial assets but had no external evaluation. Tamil Nadu and Andhra Pradesh invited external departments and agencies to perform evaluation process making it more robust. However their monitoring was only post-facto.

On the parameters that determined effectiveness of function, all the planning boards saw appointments and tenure as a matter of political will. While some boards felt that their advices were largely heeded by the political leadership on merits of expertise and impartiality, the other states admitted that the degree of proximity of political class to senior bureaucracy was instrumental in seeing a proposal through. Demands of greater allocation for popular programs and transfers were seen as routine affair with nearly all the board members using the term. Some degree of political interference, planning boards felt were inevitable, but they were with the political class if the proposal was taken in 'public interest'.

On the frequency of meeting, internal meetings were conducted nearly on daily basis in all the planning boards. Full board meeting that included the chief minister was held as frequent as once in two months in some states like Kerala and as few as once in a year in others like Karnataka.

Findings and Discussion

From the discussion of effectiveness of structures and functions of the planning boards in southern states of India, parameters for efficient performance that are both structural and functional emerge. In the structural aspect of planning board as institution, autonomy of function and availability and accessibility of expertise are important for 'depoliticisation'. For example, states that included technical members to head each of its departments and provided part-time as well as full-time members as subject experts experienced greater acceptance of its suggestions by the government.

One idea that emerged was viewing planning board as the think-tank of the government. This is a development that needs to be examined. States that depend on infrastructure and private investment have also begun thinking of government machinery in terms of corporate-like units that is efficient and professional. Restructuring public funded institutions along the line of firms is one of the options that is being actively pursued. The second idea of reform is to retain the current structure of the boards with increasing autonomy from the government. This would involve separating the boards from jurisdictional overlap with any government department and delegating evaluation function to an external agency (refer table 1). Both the models can be differentiated on five characteristic features- proximity to political class, bureaucratic discretion, involvement of local government, functional autonomy and structural

differentiation. Accordingly, there are two ways in which planning boards perceive their functions. The think-tank model of planning board envisages a higher proximity with political class with low levels of participation from other stakeholders like bureaucrats and local government officials. Structural differentiation of the institution that separates the role of politicians, bureaucrats, experts and the local government is very high. At the same time, functional autonomy and discretion of bureaucratic class is low. In the second model that is more traditional, planning board functions as a result of interaction between demands of politician, bureaucrat, expert and local government. Their functional structural differentiation is low and resolving conflict by negotiation is high. Table 1 summarises the characteristics of these two models.

Table 1: Emerging Models of Development of Planning Boards

Characteristics	Type I: Think-Tank Model	Type II: Traditional Model
Proximity to political class	High	Low
Bureaucratic discretion	Low	High
Involvement of local government	Low	High
Functional autonomy	Low	High
Structural differentiation	High	Low

Source: Authors' compilation

Clarity in the perception of its own functional mandate that included allocative and development functions helped in reducing conflicts with the political class. While all the planning boards acknowledged their appointment and tenure security as a matter of political decision, implementation of plan projects was better when development plan priority was not based on political interest focussing on electoral gains. Similarly, monitoring that included real-time monitoring with local participation and tabulating physical assets along with financial assets works comparatively better than post-facto monitoring. Planning boards that delegated the task of evaluation to an external agency seem to perform better in setting objectives in the next plan cycles. Intra departmental reporting of progress periodically as practised in some states ensured self evaluation real-time.

Planning boards that viewed their mandate in advisory capacity and felt less interference from the government in setting the agenda also fared better in performance. These were also the boards that felt they were more open to innovation and change. All the planning boards agreed to various degrees that they had scope to improve their performance, but the trajectory of reform showed two distinct pathways.

Conclusion

The area of planning especially development planning has undergone significant changes from the Nehruvian era to the opening of the economy to global forces. The rationale and objectives of planning, the role of the state and markets have taken pre-eminence. In the political framework of federalism of the Indian kind, a delicate balance between the centre and the states are mandatory to channelize resources taking into consideration regional disparity and local demands. Planning boards in this scenario needs to revitalize their roles to fulfil their functional mandate in development planning in the near future. The direction that these planning institutions might opt for remains to be of academic interest.

References

Bardhan, P. (1984). *The Political Economy of Development in India*. New Delhi: Oxford.

Chakravarty, S. (1987). *Development Planning: The Indian Experience*. New Delhi: Oxford.

Denhardt, R.B. & Denhardt, J.V. (2009). *Public Administration*. New Delhi: Cengage Learning.

Drèze, Jean & Sen, A. (2012). *India: Development and Participation*, New Delhi: Oxford.

Friedman, M. (1962). *Capitalism and Freedom*. Chicago: University of Chicago Press.

Hayek, F. A. (1944). *The Road to Serfdom*. London: Routledge.

Krueger, A.O. (1974). The Political Economy of Rent Seeking Activities, *American Economic Review,* 64(3), pp: 291-303.

Lipsky, M. (1980). *Street-level Bureaucracy: Dilemmas of the Individual in Public Services*. New York: Russell Sage Foundation.

Lowe, A. (1977). *On Economic Knowledge*. New York: M.E. Sharpe Inc.

Mehrotra, S. (2014). The Reformed 'Planning Commission': The Way Forward. *Economic & Political Weekly*, 49(37), pp: 18-20.

Munck, R. (2005). Neoliberalism and Politics, and the Politics of Neoliberalism. In A. Saad-Filho and D. Johnston (Eds), *Neoliberalism: A Critical Reader,* pp: 60-69. London: Pluto Press.

Nachane, D. M. (2014). Yojana Bhawan: Obiter Dictum, *Economic & Political Weekly*, 49(37), pp: 12-17.

Nozick, R. (1974). *Anarchy, State and Utopia*. Oxford: Blackwell.

Oommen, M.A. (2006). Fiscal Decentralisation to the Sub-State Level Governments, *Economic & Political Weekly*, 41(10), pp: 897-903.

Rao, C. H. Hanumantha. (1989). Decentralised Planning: An Overview of Experience and Prospects, *Economic & Political Weekly*, 24(8), pp: 411-416.

Sen, P. (2017). Plan, but Do Not Over-Plan: Lessons for NITI Aayog, *Economic & Political Weekly,* 52(18), pp: 41-48.

Shah, R.R. (2014). Reorienting the Plan Process and Revitalising the Planning Commission, *Economic & Political Weekly*, 49(37), pp: 20-23.

JGPP Journal of Governance & Public Policy
ISSN 2231-0924 Volume 7, No 2, July-December 2017 pp.69-78

Political Awareness of Dalit: Selected Villages in Karnataka

I. Maruthi* and **Pesala Peter*****

Political awareness is very important for the people in general and particularly in Dalit. Majority of the villagers are not aware about many issues and things in general and Dalit people in particular. Some of the Dalit people not awareness about president of Gram Panchyat (Sarpanch), ZP, TP, MLA and MP. Due to Lack of education, superstition, low caste, inferiority complex are the main factors are influenced the Dalit not contest the election. In villages few of Dalit are educated and they are poor in economically and unemployed due to these reasons their voice are not recognized. The main objective of the paper is to investigate the political awareness of Dalits households in rural Karnataka.

In the overall observation a majority of Dalits were not awareness about different kind of political leaders. In the same manner, half of the households were aware about their local MLA. Surprisingly half of the households were aware about the Chief Minister of Karnataka. Nearly half of the per cent of the households knows about that Prime Minister. Villagers are very much interested casting in their votes in elections in general and particularly in selected Dalit households. A few persons contested elections and in reserved seats and by self motivation contested the election.

Keywords

Political awareness, Dalit households

Introduction

Majority of the citizens are not aware about many issues like importance of health issues, water, and sanitation in general and political awareness in particularly. Most of the people are not aware about president of Gram Panchyat (Sarpanch) and his duties and role in development activities in the village. During election time cast their vote whoever offers more money or whoever provides drink or whoever says something they are willing to cast their vote. But few people without money they are casting their vote and whom they like. Due to lack of education, superstition, low caste, inferiority complex are the main factors are influenced the Dalit to cast their vote. Other Caste (OC) and Backward Caste (BC) people are casting Dalit disadvantages. In villages, few of Dalit are educated and they are poor in economically and unemployed, due to these reasons their voice are not recognized in the village elders. Beside that in villages, whoever having more land, economically sound and caste is OCs their voice is recognized. In the same manner, whoever contributed to Dalit then they are able to remembering their names, for example, Smt. Indira Gandhi, former Prime Minister of India, contributed and constructed housing program for Dalit people. This is a huge program and Dalit are still remembering her name. This paper covers the political awareness in Dalit in Karnataka. The main objective of the paper is to investigate the political awareness of Dalit in rural Karnataka.

* Associate Professor and Head, ADRTC, ISEC, Nagarabhavi, Bengaluru and can be reached at: maruthi@isec.ac.in
** Consultant in ADRTC, ISEC, Nagarabhavi, Bengaluru and can be reached at: drpesalapeter@gmail.com

Research Methodology and Data Collection of the Study

Karnataka was purposively selected as the study area. The study employed the rigorous field work methodology and collected the needed data for the analysis of both the qualitative and quantitative information. The study is based on the interdisciplinary approaches to understand the persisting of socio-economic conditions of the Dalit community. Secondary data was used to pertaining the background information regarding the Dalit community in Karnataka. The sample respondents were selected by using multistage random sampling technique and the simplest form of entire sampling procedure is presented in Table 1. In the first stage entire state was divided into three main regions namely; North, Central, and South Karnataka. In the second stage, according to 2011 census, the study area selected highest SC population in each region in two districts. The selected districts are Belagavi (Belgaum) and Kalaburagi (Gulbarga) in North Karnataka; Chitradurga and Davanagere in Central Karnataka; and Mysuru and Tumakuru in South Karnataka. In third stage, highest SC population two villages were selected in each district. The selected villages are: Harugeri (Population 5,846) and Mugalkhod (5,579) in Belagavi district; Srinivas Saradgi (4,374) and Ravoor (3,794) in Kalaburagi; Naikanahatti (2,759) and Adivala (2,692) in Chitradurga; Towdur (3,387) and Uchangidurga (2,823) in Davanagere; Sosale (5,084) and Muguru (2,995) in Mysuru; Madalur (1,951) and Kodigenahalli (1,764) in Tumakuru (Table 1). And final stage, in each village, 150 sample households were selected randomly. The total sample size is 1800 (Maruthi and Busenna, (2015a); Maruthi and Busenna (2015b); Maruthi and Busenna, (2016a); Maruthi and Peter, (2017) and Maruthi and Busenna (2017).

Table 1: Population Details of the Selected Villages (in Numbers)

Regions	Districts	Name of the Village	Population	SC Population	A*	B*
North Karnataka	Belagavi	Harugeri	28754	5846	20.3	1.30
		Mugalkhoda	25835	5579	21.6	1.24
	Kalaburagi	Srinivas saradagi	7523	4374	58.1	0.89
		Ravoor	12117	3794	31.3	0.77
Central Karnataka	Chitradurga	Naikanahatti	15545	2759	17.7	0.83
		Adivala	7550	2692	35.7	0.81
	Davanagere	Towdur	6113	3387	55.4	1.07
		Uchangidurga	9781	2823	28.9	0.89
South Karnataka	Mysuru	Sosale	7260	5084	70.0	1.34
		Muguru	8393	2995	35.7	0.79
	Tumakuru	Madalur	6518	1951	29.9	0.45
		Kodigenahalli	7075	1764	24.9	0.41

Source: Karnataka Census, 2011.
Note: A. Share of SC population in the total population; B. Share of village in the District's Population

Awareness about Local Political Leaders

A majority (in number 939) of Dalits were not aware about their village president due to lack of education, economically weak. The lack of awareness was very high in Mugalkhoda (122), followed by Ravoor (116) and Harugeri (108) (Table 2). Similarly, nearly 91(1629) per cent of the households were not aware about Taluk Panchyat member and it is as high in Madalur (147) followed by Sosale (146) and Adivala (145) (Table 2). Nearly 91(1634) per cent of the households were not aware about their Zilla Panchyat members and this is very high in Madalur (148) followed by Sosale (146) and Nayakanahatti (143) (Table 2). Interestingly and surprisingly this awareness level is better about knowing state level political leaders; nearly half of them knew about their MLA. The awareness is lowest in Srinivasa saradagi

followed by Ravoor and Uchangidurga (Table 3). In local MLA is involving in all kind of government development program due to this reason many Dalit knows about MLA. In the same manner day to day life his contribution of development of work may be visible to the public. In contrast that 77 (1387) per cent households were aware about their MPs and this is high in Kodigenahalli (144) village and followed by Madalur (137) and Sosale (123), and 23 per cent of knew about their MP (Table 3). Many development activities MP is usually not involved in addition to that he/she participate in central level program. In the same manner day to day life his development activities may not reveals to general public. Surprisingly half (887) of the households were aware about the Chief Minister of Karnataka, this is high in Muguru village (97) and followed by Sosale (93) and Nayakanahatti (88) and the details are presented in Table 3. The main reason for to know the Chief Minister is day to day life is general public are watching the Television (TV), listening news from Radios and reading the news from papers. These channels are improved but still selected households, most of them were not having TVs, Radios. In addition to that Dalit people were unable to subscribe the news papers due to this reason awareness improvement is required. Majorities (1528) of the households were not aware about their president of India (Table 3). Nearly 40 (717) per cent of the households were aware about Prime Minister and surprisingly it is high in Sosale (93) followed by Nayakanahatti (85) and Muguru (80) (Table 3).

Table 2. Particulars of Awareness about Local Political Leaders

Village / District	Do you know President in your GP			Do you know your Taluk Panchyat Member?			Do you know your Zilla Panchyat Member?		
	Yes	No	Total	Yes	No	Total	Yes	No	Total
Harugeri	42	108	150	27	123	150	37	113	150
Mugalkhoda	28	122	150	22	128	150	22	128	150
Belagavi	**70**	**230**	**300**	**49**	**251**	**300**	**59**	**241**	**300**
Ravoor	34	116	150	16	134	150	9	141	150
Srinivasa saradagi	44	106	150	10	140	150	8	142	150
Kalaburagi	**78**	**222**	**300**	**26**	**274**	**300**	**17**	**283**	**300**
Adivala	88	62	150	5	145	150	11	139	150
Nayakanahatti	109	41	150	11	139	150	7	143	150
Chitradurga	**197**	**103**	**300**	**16**	**284**	**300**	**18**	**282**	**300**
Uchangidurga	81	69	150	23	127	150	26	124	150
Towdor	90	60	150	34	116	150	24	126	150
Davanagere	**171**	**129**	**300**	**57**	**243**	**300**	**50**	**250**	**300**
Muguru	87	63	150	10	140	150	8	142	150
Sosale	112	38	150	4	146	150	4	146	150
Mysuru	**199**	**101**	**300**	**14**	**286**	**300**	**12**	**288**	**300**
Kodigenahalli	67	83	150	6	144	150	8	142	150
Madalur	79	71	150	3	147	150	2	148	150
Tumakuru	**146**	**154**	**300**	**9**	**291**	**300**	**10**	**290**	**300**
Total	**861**	**939**	**1800**	**171**	**1629**	**1800**	**166**	**1634**	**1800**

Source: Primary data, 2014.

Table 3: Particulars of Awareness about State Leaders

Village/District	Do you know who is your MLA?			Do you know who is your MP?			Do you know your Chief Minister?		
	Yes	No	Total	Yes	No	Total	Yes	No	Total
Harugeri	67	83	150	54	96	150	76	74	150
Mugalkhoda	69	81	150	46	104	150	57	93	150
Belagavi	**136**	**164**	**300**	**100**	**200**	**300**	**133**	**167**	**300**
Ravoor	44	106	150	38	112	150	56	94	150
Srinivasa saradagi	26	124	150	29	121	150	57	93	150
Kalaburagi	**70**	**230**	**300**	**67**	**233**	**300**	**113**	**187**	**300**
Adivala	81	69	150	45	105	150	75	75	150
Nayakanahatti	84	66	150	34	116	150	88	62	150
Chitradurga	**165**	**135**	**300**	**79**	**221**	**300**	**163**	**137**	**300**
Uchangidurga	45	105	150	32	118	150	55	95	150
Towdor	57	93	150	49	101	150	70	80	150
Davanagere	**102**	**198**	**300**	**81**	**219**	**300**	**125**	**175**	**300**
Muguru	63	87	150	40	110	150	97	53	150
Sosale	74	76	150	27	123	150	93	57	150
Mysuru	**137**	**163**	**300**	**67**	**233**	**300**	**190**	**110**	**300**
Kodigenahalli	110	40	150	6	144	150	83	67	150
Madalur	115	35	150	13	137	150	80	70	150
Tumakuru	**225**	**75**	**300**	**19**	**281**	**300**	**163**	**137**	**300**
Total	**835**	**965**	**1800**	**413**	**1387**	**1800**	**887**	**913**	**1800**

Source: Primary data, 2014.

Table 4: Particulars of Awareness about National Leader

Village/District	Do you know President of India?			Do you know your Prime Minister?		
	Yes	No	Total	Yes	No	Total
Harugeri	46	104	150	55	95	150
Mugalkhoda	27	123	150	40	110	150
Belagavi	**73**	**227**	**300**	**95**	**205**	**300**
Ravoor	26	124	150	45	105	150
Srinivasa saradagi	22	128	150	45	105	150
Kalaburagi	**48**	**252**	**300**	**90**	**210**	**300**
Adivala	24	126	150	70	80	150
Nayakanahatti	17	133	150	85	65	150
Chitradurga	**41**	**259**	**300**	**155**	**145**	**300**
Uchangidurga	29	121	150	41	109	150
Towdor	29	121	150	59	91	150
Davanagere	**58**	**242**	**300**	**100**	**200**	**300**
Muguru	17	133	150	80	70	150
Sosale	20	130	150	93	57	150
Mysuru	**37**	**263**	**300**	**173**	**127**	**300**
Kodigenahalli	12	138	150	63	87	150
Madalur	3	147	150	41	109	150
Tumakuru	**15**	**285**	**300**	**104**	**196**	**300**
Total	**272**	**1528**	**1800**	**717**	**1083**	**1800**

Source: Primary data, 2014.

Election and Dalit Participation

Dalit always concerned and very interested to cast their vote in elections irrespective of whether it is being held for Lokshaba, Legislative Assembly and Panchyat. Sing (2014) probed into influence awareness on capacity building of Dalit women in Ambedkar Gram and non-Ambedkar gram of in Lucknow region. The study selected 500 sample Dalit women, and of which 250 each Dalit women from Ambedkar gram and from non-Ambedkar gram. The study compared Ambedkar and non-Ambedkar gram blocks. The study finds that the Ambedkar gram Dailt women have more facilities and awareness compared to non-Ambedkar gram. Ambedkar gram women conditions were more improved than non-Ambedkar gram on the basis of health, income, education, decision making and political rights. The study suggested for giving more attention to non-Ambedkar gram in several issues those are: the casting of vote is still low in non-Ambedkar gram, secondly, the awareness is very low and improvement is required for this, thirdly, woman education and awareness is required more and finally, law and awareness are very low in non-Ambedkar gram. The above said points are very essential for improving the non-Ambedkar gram block. Our primary study data reveals that most (1410) of the households were casted vote in 2014 lokshaba election. Among the villages Uchangidurga household's participation rate (149) was high and followed by Towdor (148) and Ravoor (126) (Table 5**)**. Only 38 households were contested in GP elections in their respective villages. This is high in Nayakanahatti (in number 8) village and followed by Sosale (6), Ravoor (4) and Adivala (4) (Table 5). A majority of them were contested elections in reserved seat (32) and six members were contested in general seat (Table 5). With regard to election expenses; an average Rs.59,333/- were spend. The highest amount spent was in Uchangidurga (Rs.1,50,000) village, followed by Sosale (Rs.1,25,000) and Ravoor (Rs.1,20,000) (Table 5). A majority of the Dalit were spend their own funds (18), for contesting election and borrowed (3); Relatives (2); party funds (2); and own and borrowed funds (1); and details are presented in Table 6. The inspiration is very important to contest the election, our study data reveals that most of them were motivated by self (7), and followed by family members (6), friends (5), caste people (3), upper caste people (2), friends and upper caste people (2) (Table 7). After winning GP elections, half of the members contributed towards Dalit development and the remaining were not (Table 8) due to pressure from the Other caste people. Members were responsible for developing the roads and street lights in SC colony followed by developmental activities like construction houses sanitary facilities (Table 8).

Table 5: Did you Vote in the Last (2014) Lokshaba Election?

Village/District	A			B			C			D	
	Yes	No	Total	Yes	No	Total	E	F	Total	G	H
Harugeri	122	28	150	3	147	150	0	3	3	0	0
Mugalkhoda	121	29	150	2	148	150	1	1	2	3000	3000
Belagavi	**243**	**57**	**300**	**5**	**295**	**300**	**1**	**4**	**5**	**3000**	**3000**
Ravoor	126	24	150	4	146	150	0	4	4	120000	120000
Srinivasa saradagi	118	32	150	2	148	150	0	2	2	5000	5000
Kalaburagi	**244**	**56**	**300**	**6**	**294**	**300**	**0**	**6**	**6**	**125000**	**62500**
Adivala	124	26	150	4	146	150	1	3	4	60000	60000
Nayakanahatti	118	32	150	8	142	150	1	7	8	285000	47500
Chitradurga	**242**	**58**	**300**	**12**	**288**	**300**	**2**	**10**	**12**	**345000**	**49286**
Uchangidurga	149	1	150	1	149	150	0	1	1	150000	150000
Towdor	148	2	150	1	149	150	0	1	1	5000	5000
Davanagere	**297**	**3**	**300**	**2**	**298**	**300**	**0**	**2**	**2**	**155000**	**77500**
Muguru	122	28	150	3	147	150	1	2	3	10000	10000

Village/District	A			B			C			D	
	Yes	No	Total	Yes	No	Total	E	F	Total	G	H
Sosale	120	30	150	6	144	150	1	5	6	250000	125000
Mysuru	**242**	**58**	**300**	**9**	**291**	**300**	**2**	**7**	**9**	**260000**	**86667**
Kodigenahalli	79	71	150	2	148	150	1	1	2	60000	60000
Madalur	63	87	150	2	148	150	0	2	2	120000	60000
Tumakuru	**142**	**158**	**300**	**4**	**296**	**300**	**1**	**3**	**4**	**180000**	**60000**
Total	**1410**	**390**	**1800**	**38**	**1762**	**1800**	**6**	**32**	**38**	**1068000**	**59333**

Source: Primary data, 2014. Note: A. Did you vote in the last (2014) Lokshaba election; B. Did you contest last GP Election (2010); C. Did you contest in General / Reserved seat?; D. How much money you Spent for GP election?; E. General; F. Reserved; G. Total Amount; H. Average Amount.

Table 6: Source of Funds to Contest Elections

Village/District	A*	B	C	D	E	F	Total
Harugeri	2	1	0	0	0	0	3
Mugalkhoda	1	0	0	1	0	0	2
Belagavi	**3**	**1**	**0**	**1**	**0**	**0**	**5**
Ravoor	2	0	0	1	0	0	3
Srinivasa saradagi	1	0	0	0	0	0	1
Kalaburagi	**3**	**0**	**0**	**1**	**0**	**0**	**4**
Adivala	1	0	0	0	0	0	1
Nayakanahatti	4	1	0	1	1	0	7
Chitradurga	**5**	**1**	**0**	**1**	**1**	**0**	**8**
Huchangidurga	1	0	0	0	0	0	1
Towdor	1	0	0	0	0	0	1
Davanagere	**2**	**0**	**0**	**0**	**0**	**0**	**2**
Muguru	1	0	0	1	0	0	2
Sosale	3	0	0	0	1	0	4
Mysuru	**4**	**0**	**0**	**1**	**1**	**0**	**6**
Kodigenahalli	0	0	1	0	0	1	2
Madalur	1	0	0	0	0	1	2
Tumakuru	**1**	**0**	**1**	**0**	**0**	**2**	**4**
Total	**18**	**2**	**1**	**4**	**2**	**2**	**29**

Source: Primary data, 2014.
Note*: A. Own funds; B. Own & Party funds; C. Own and borrowed; D. Party fund; E. Borrowed; and F. Relatives.

Table 7: Who Suggest you to Contest GP Election?

Village/District	Self	A	B	C	Friends	D	E	Total
Harugeri	0	2	1	0	0	0	0	3
Mugalkhoda	1	0	0	0	0	0	1	2
Belagavi	**1**	**2**	**1**	**0**	**0**	**0**	**1**	**5**
Ravoor	1	0	0	1	1	1	0	3
Srinivasa saradagi	0	0	1	0	0	0	0	1

Village/District	Self	A	B	C	Friends	D	E	Total
Kalaburagi	**1**	**0**	**1**	**1**	**1**	**1**	**0**	**4**
Adivala	1	0	0	0	0	0	0	1
Nayakanahatti	3	0	0	0	2	0	1	6
Chitradurga	**4**	**0**	**0**	**0**	**2**	**0**	**1**	**7**
Uchangidurga	0	0	0	0	1	0	0	1
Towdor	0	0	0	1	0	0	0	1
Davanagere	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**2**
Muguru	0	0	0	0	1	0	0	1
Sosale	1	0	2	0	0	1	0	4
Mysuru	**1**	**0**	**2**	**0**	**1**	**1**	**0**	**5**
Kodigenahalli	0	0	1	0	0	0	0	2
Madalur	0	0	1	0	0	0	1	2
Tumakuru	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**4**
Total	**7**	**2**	**6**	**2**	**5**	**2**	**3**	**27**

Source: Primary data, 2014. Note: A. Self & Relatives; B. Family members; C. Upper caste & friends; D. Upper caste people; E. Same caste people.

Table 8: Did you Contribute Development Activities to Dalit Colony

Village/District	Did you contribute *			What you contributed?							
	Yes	No	Total	a	b	c	d	e	f	g	h
Harugeri	2	1	3	1	0	0	0	0	1	0	2
Mugalkhoda	2	0	2	0	0	0	0	1	0	1	2
Belagavi	**4**	**1**	**5**	**1**	**0**	**0**	**0**	**1**	**1**	**1**	**4**
Ravoor	3	1	4	0	0	0	0	0	3	0	3
Srinivasa saradagi	0	2	2	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Kalaburagi	**3**	**3**	**6**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**3**
Adivala	1	3	4	0	0	0	0	0	1	0	1
Nayakanahatti	3	5	8	0	0	0	0	0	1	2	3
Chitradurga	**4**	**8**	**12**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**4**
Uchangidurga	1	0	1	0	0	0	0	0	1	0	1
Towdor	1	0	1	0	0	0	0	0	1	0	1
Davanagere	**2**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**2**
Muguru	1	2	3	0	0	0	0	0	0	1	1
Sosale	3	3	6	0	1	0	1	0	1	0	3
Mysuru	**4**	**5**	**9**	**0**	**1**	**0**	**1**	**0**	**1**	**1**	**4**
Kodigenahalli	1	1	2	0	0	0	0	0	0	1	1
Madalur	1	1	2	0	0	1	0	0	0	0	1
Tumakuru	**2**	**2**	**4**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**2**
Total	**19**	**19**	**38**	**1**	**1**	**1**	**1**	**1**	**9**	**5**	**19**

Source: Primary data, 2014. * indicate “Did you contribute to any Development activities to Dalit colony/ households’? Note: a). Constructed temple; b) Drainage; c) Helped to poor people; d) House; e) Water supply and toilet rooms; f) Development of roads and streetlights; g) House and roads construction; h) Total.

Participation of Election

Very small number (9) of Dalit people were contested TP/ZP elections. Among the villages, three members contested from Sosale village and rests of them were other villages (**Table9**). Similarly three each contested in general and reserved (**Table 9**) seats respectively. For contesting of election, an average amount Rs.78,333 were spend. The highest average amount was Rs.2,00,000/- from Towdor village and the lowest was Rs.10,000 in Sosale village (**Table 9**). The funding of contesting in election, come from own (2) sources; party fund (1) and other sources (1). The candidates were motivated by self (3) and suggested by relatives (1). Among the elected people one person contributed for road development in Dalit colony. This is surprising news.

Table 9: Did you Contest TP/ ZP Election?

Village/District	Did you contest TP/ ZP election?			Did you contest in General /Reserved category?			How much money you spent?	
	Yes	No	Total	General	Reserved	Total	Total Amount	Average Amount
Harugeri	1	149	150	0	1	1	NA	NA
Belagavi	**1**	**299**	**300**	**0**	**1**	**1**	NA	NA
Ravoor	1	149	150	0	1	1	25000	25000
Kalaburagi	**1**	**299**	**300**	**0**	**1**	**1**	**25000**	**25000**
Adivala	1	149	150	1	0	1	NA	NA
Nayakanahatti	1	149	150	1	0	1	NA	NA
Chitradurga	**2**	**298**	**300**	**2**	**0**	**2**	NA	NA
Towdor	1	149	150	1	0	1	200000	200000
Davanagere	**1**	**299**	**300**	**1**	**0**	**1**	**200000**	**200000**
Muguru	1	149	150	0	1	1	NA	NA
Sosale	3	147	150	0	1	1	10000	10000
Mysuru	**4**	**296**	**300**	**0**	**1**	**2**	**10000**	**10000**
Total	**9**	**1791**	**1800**	**3**	**3**	**7**	**235000**	**78333**

Source: Primary data, 2014. Note: NA means Data not available.

Membership in Different Organizations

Most of the households were not ward members of their GPs and only countable people were ward members' of from Sosale, Towdor and Nayakanahatti. Nine members were participated actively in GPs activities, by involving themselves in the construction of houses, road and allied activities, street light and water connection. At the same time, Sosale village, two households were members in Dairy society and they did not contribute towards Dalit welfare.

Reasons for not Contesting Election

For contesting any election self motivation, personal interest, courage, decision making, money and political strength is very important. Without money, winning in election is very difficult. Almost all Dalits were financially poor in general, and particularly in selected villages and also they are socially vulnerable, and politically voiceless. Our study data reveals that very poor (563), lack of money (411), lack of strength (392), not interested (251), lack of support (40) from the villagers were the main reasons for not contested the GP/TP/ZP elections (**Table10**) during study period. At the same time, Lack of support, not interested, Lack of capability, poor and lack of money were the main reasons for not becoming member of the societies / community / organizations.

Table 10: Reason for not Contesting GP/TP/ZP Election

Village/District	A	B	C	D	E	Total
Harugeri	0	12	62	9	64	147
Mugalkhoda	1	2	79	11	55	148
Belagavi	**1**	**14**	**141**	**20**	**119**	**295**
Ravoor	0	12	77	2	56	147
Srinivasa saradagi	9	18	53	28	33	141
Kalaburagi	**9**	**30**	**130**	**30**	**89**	**288**
Adivala	0	31	22	67	17	137
Nayakanahatti	6	30	24	66	9	135
Chitradurga	**6**	**61**	**46**	**133**	**26**	**272**
Huchangidurga	0	19	75	21	29	144
Towdor	0	26	78	19	16	139
Davanagere	**0**	**45**	**153**	**40**	**45**	**283**
Muguru	18	41	20	25	31	135
Sosale	6	39	23	37	21	126
Mysuru	**24**	**80**	**43**	**62**	**52**	**261**
Kodigenahalli	0	21	4	106	1	132
Madalur	0	0	46	20	60	126
Tumakuru	**0**	**21**	**50**	**126**	**61**	**258**
Total	**40**	**251**	**563**	**411**	**392**	**1657**

Source: Primary data, 2014. Note: A. No support; B. Not interested; C. Very poor; D. Lack of money; E. Lack of Strength.

Conclusion and Findings of the Study

In the overall observation a majority of Dalits were not awareness about their village Gram president TP and ZP members. In the same manner half of the households were aabout their MLA. Surprisingly half of the households know about their Chief Minister of Karnataka. A majority (1528) of households were less awareness about President of India and all this to illiteracy, poor and rural background. Nearly 40 (717) per cent of the households were aware about Prime Minister of India. Most (1410) of the households were voted in 2014 lokshaba election. A small number (38) of persons contested GP elections, and majority of them were contested elections in reserved seats (32) and seven members were contested in general seats. By self motivation contested the election and followed by family members, friends, same caste people, upper caste people, friends and upper caste people were motivated them to contested the election. A very small number of persons contested TP/ZP elections in their respective villages in Karnataka. Very poor, lack of money, Lack of strength, not interested and lack of support from others are the main reason for not becoming member of the societies/committees in their respective village in selected households.

References

Maruthi, I. & Pesala Busenna(2015a). Assessment of Socio-economic Capabilities of Dalit Households in Karnataka. Report Submitted to ICSSR, New Delhi.

Maruthi, I. & Pesala Busenna (2015b). Drinking Water, Sanitation, Hygiene Practices Dalits in Karnataka, *Journal of Governance and & Public Policy (JGPP)*, 6 (2), pp: 82-102.

Maruthi, I. & Pesala Busenna (2016). Own House and Dalit: Selected Villages in Karnataka State, *ISEC Working Paper No. 354*.

Maruthi, I. & Pesala Peter (2016). Participation of SHG and Employment Capabilities of Dalits Households in Karnataka, *Indian Journal of Economics and Development*, 4(8), pp:1-10.

Maruthi, I. & Peter Pesala (2017). Status of Small and Marginal Dalit Farmers in Karnataka, *Agriculture Situation in India,* 73 (12), pp:35-47.

Maruthi, I. & Pesala Busenna (2017). Expenditure Inequalities Among School Children: A Study in Karnataka, In: (Eds) Gyanmudra & M. Sarumathy, *The New Rural Paradigm: Policies and Governance*, NIRD, Hyderabad.

Sing Ruchi DR (2014). Influence of Health Awareness on Capacity Building of Dalit Women's: A Comparative Study in Ambedkar Gram and Non-Ambedkar Gram of Bkt Block, *International Journal of Social Relevance & Concern*, 2 (1), pp:5-20.

JGPP Journal of Governance & Public Policy
ISSN 2231-0924 Volume 7, No 2, July-December 2017 pp.79-84

Revealing Cavities in India's Groundwater Management

Madhavi Marwah*

While the first Green Revolution served its initial purpose of ensuring India's food security, there is little doubt in claiming that this revolution was not environmentally sustainable and resulted in visible signs of resource depletion and degradation, particularly of groundwater. Groundwater contamination, rather than groundwater depletion, needs to be considered more seriously at policy level. By shedding light on the different sources, extent of spread and possible impacts of groundwater contamination in India, the author provides analytical insights into some major missing links at policy level in India's groundwater management. The author particularly warns against the move towards a second Green Revolution in India.

Keywords
Groundwater, Contamination, Policy, Green Revolution

Introduction

As the Green Revolution boom began to turn around and the resultant signs of environmental degradation in terms of declining groundwater levels and deteriorating soil quality became imminent, natural resource management received further impetus by early 1980's. With regard to water resources management, the first national level assessment of groundwater availability, utilisation and monitoring of water level was carried out for the year 1984, followed by the release of National Water Policy in 1987 to guide the development of water resources and ensure their efficient utilisation across the country.

With the increasing number of drying wells and the need to dig deeper, efficient use of groundwater to control and check the quantity depletion of the resource became the primary focus within groundwater management. Exploiting the energy-groundwater nexus through energy pricing, enhancing water use efficiency through incentivising use of technological innovations – drip and sprinkler irrigation, and non-technological measures – controlling the timing of paddy transplantation, have been some of the important policy instruments.

Having utilised the yield potential as well as the irrigation potential in north-western States, mid-2000's again saw the country reeling under the pressure to meet the growing food requirements. This directed attention to the need for a second Green Revolution, targeting productivity improvements in the relatively water abundant eastern States. Such a shift became explicitly visible with the introduction of the Bringing Green Revolution to Eastern India scheme launched in 2011 under the Rashtriya Krishi Vikas Yojana.

Holding on to this agenda propagated by the previous government, Prime Minister Narendra Modi on several occasions reiterated the need for a second Green Revolution. In an address at Burnpur

* Ph.D. Scholar, Institute for Social and Economic Change (ISEC), Nagarabhavi, Bengaluru and can be reached at: madhavimarwah@isec.ac.in

(West Bengal) in May 2015, PM Modi remarked "East India needs to be strengthened… I clearly see the second Green Revolution happening here… East India has abundance of water, land and people. It can usher in the revolution." (Economic Times: May 10, 2015). While laying the foundation stone of Indian Agricultural Research Institute at Hazaribagh (Jharkhand) in June 2015, he again suggested that 'eastern states could lead the second green revolution' (The Hindu: June 28, 2015).

On a more recent occasion, third anniversary of Modi government's tenure, the PM while expressing his hope for an "evergreen revolution" announced a new INR 6,000 crore scheme 'Sampada' to encourage food processing (Times of India: May 26, 2017). But are we really on the path towards a sustainable green revolution or in the words of PM Modi, an "evergreen revolution"?

Groundwater Contamination: The Hidden Crisis

While surface water contamination is visible and hence receives significant attention, groundwater pollution is hidden and remains largely neglected. There are two ways in which groundwater contamination takes place.

Anthropogenic Contamination of Groundwater

The pollution of groundwater caused by human activities is referred to as anthropogenic contamination of groundwater. Agricultural activities which contaminate groundwater include the application of chemical fertilisers, pesticides, herbicides and animal wastes which seep into the aquifer. Industrial effluents and waste materials by manufacturing industries which are discharged and dumped into surface water bodies also pollute the aquifer (CGWB, n.a.).

There is a vast account of excerpts in newspapers and research articles quoting the concern by farmers in Punjab, Haryana and western Uttar Pradesh over the degraded soil conditions due to excessive application of chemical fertilisers and pesticides during a three to four decades period from mid-1960's onwards. To quote a professor in agricultural economics at Punjab Agricultural University, Prof. R. K. Mahajan, 'the Green Revolution is not as green as it was earlier – it has now become brown and pale' (Pepper 2008).

While use of chemicals directly affects soil quality, groundwater quality gets impacted once the chemicals move down through the soil to the aquifer. Although with growing realisation of the negative impacts of chemical application in terms of soil deterioration, there has been some decline in their use, but what is overlooked is the historical accumulation of these contaminants in the groundwater used for irrigation.

Lack of proper, comprehensive groundwater quality monitoring prohibits a time series analysis of the trend in concentration of indicative substances and heavy metals arising from fertiliser and pesticide use. Particularly, it is nitrate and pesticide contamination which is the most common result of agricultural run-off. Broadly, it is known that nitrate concentration in groundwater exceeds the permissible limit of 45 mg per litre in 11 States in India (Chakraborti et. al. 2011).

Aquifer characteristics are an important determinant of the type and extent of contamination problems. Approximately 65 percent of aquifers in India comprise hard-rock aquifers found in western and central peninsular India, while the remaining are alluvial aquifers found in the Indo-Gangetic plains region (Suhag 2016). Quality degradation is more prominent in alluvial aquifer type, firstly on account of easy transmission of chemical fertilizers and pesticides from soil to the shallow water table (top-down contamination) and second is for geological reasons wherein contaminants like arsenic from rock formations get mobilized into groundwater surrounding them as extraction takes place (bottom-up contamination) (Shah 2007: 10).

Geogenic Contamination of Groundwater

Contamination arising naturally or from naturally occurring sources, as opposed to from human activities, is known as geogenic contamination. Geogenic contamination of groundwater usually occurs on account of substances and heavy metals present in the rock formations below ground or Earth's subsurface which mix with the groundwater. Some of the widely prevalent contaminants in the aquifers in India are fluoride, chloride, iron and arsenic.

Chakraborti et. al. (2011) observed some degree of fluoride contamination in 20 States, with the spread ranging from 85 to 97 percent districts in some States. Another geologically occurring contaminant is arsenic, whose prevalence is largely reported in the floodplains of river with their origin in the Himalayas. The worst affected States in terms of prevalence of arsenic are West Bengal, Jharkhand, Bihar, Uttar Pradesh, Assam, Manipur and Chhattisgarh. Iron is another naturally occurring metal whose presence is widely noted in 12 States in India including Rajasthan, Odisha and Tripura.

Anthropogenic and geogenic contamination may overlap in case that human activities mobilise naturally occurring substances into groundwater. This type of contamination is referred to as indirect anthropogenic contamination (Grutzmacher et al. 2013). Extraction of groundwater for domestic purpose or for irrigation results in mobilisation of arsenic from rocks into the aquifer. Similarly, the vacuum created from groundwater extraction near coastal areas causes intrusion of saline water in the aquifer.

A large number of scientific experiments based studies confirm a decline in yield of crops when arsenic-concentrated water is applied for irrigation. However, at same level of arsenic content, the impact varies across crops, variety of crop grown, soil conditions – aerobic or anaerobic. Khan et al. (2010) for instance, found that arsenic addition in water or soil resulted in yield reductions from 21 to 74 percent in *boro* (summer) rice and 8 to 80 percent in *aman* (winter) rice, the latter indicating the strong residual effect of arsenic on subsequent crops. In a controlled pot experiment study, Abedin et al. (2002) found that arsenate contaminated irrigation water accounted for 26, 38, 56 and 65 percent rice yield reduction by addition of 1, 2, 4 and 8 mg arsenic, respectively. Moreover, the number of rice grain (filled spikelets) also decreased significantly (at 1 percent level of significance) with the level of contamination of irrigation water by arsenate. Abedin et al. (2002) also observed a decline in weight of rice grain with arsenic addition such that highest thousand grain weight (i.e., mass of 1000 grains) of 19.8 grams was found in control case which decreased to 18.3 grams in the highest arsenate treatment case. Similarly, 100-500 ppm of fluoride concentration in irrigation water used for six weeks shows a decline in growth, yield, leaf expansion of poplar crop (Singh and Verma, 2013).

Missing Links at Policy Level

Monitoring Groundwater Quality

Central Ground Water Board (CGWB) in collaboration with State Ground Water Departments periodically undertakes monitoring of groundwater level and quality across the entire country. It does so through assessment of water level and certain quality indicators in designated monitoring wells spread throughout the country. The same has been carried out for base years 2004, 2009, 2011 and 2013, based on the methodology laid out by the Groundwater Estimation Committee report of 1997. By analysing the trend in pre-monsoon and post-monsoon water levels, CGWB categorises what are called 'assessment units' into four categories. As per its latest assessment of groundwater resources in 2013, there are 4520 'safe' units, 681 'semi-critical' units, 253 'critical' units and 1034 are 'over-exploited' units out of a total of 6584 'assessment units' (blocks / mandals / taluks / watersheds / firkas). The remaining 96 units as found to have saline or brackish water (CGWB, 2013).

The main limitations with respect to groundwater monitoring specifically with respect to quality parameters is that only one indicator is considered, ie. salinity. GEC-97 methodology requires assessing poor groundwater areas separately, but lacks clarity on what must be considered as 'poor quality'. There are some intermittent assessments of groundwater quality and their reports published; however, there is no consistency in the methodology followed.

Another major drawback is that water quality assessment has never been undertaken at varying water depths in order to understand the relationship between water depth and the various water quality parameters. It is done in a rather rudimentary fashion of collecting one sample from one well. This further implies that there is no understanding of distinction between water quality in wells used for drinking and those used for irrigation.

Furthermore, the monitoring or observation wells of CGWB may be limited in number and may not be sufficient in number to represent the real situation. The dynamic groundwater resources assessment report (CGWB, 2013) is silent on the total number of observation wells in the country.

Lack of Acknowledgment

National Water Policy 2002 and 2012 have in their mandate to prevent detrimental environmental consequences of over exploitation of groundwater by ensuring that ground-water recharge projects are developed and implemented for improving both the quality and availability of groundwater resources. However, NWP fails to acknowledge or make note of geogenic contaminants, let alone provide a detailed plan for tackling major contaminants such as arsenic and fluoride, and their resultant impacts on livelihood.

The latest Model Bill for the Conservation, Protection, Regulation and Management of Groundwater, 2016 laid out by the Ministry of Water Resources, Government of India to be appropriately modified and implemented by each State government suggests the demarcation of areas affected by arsenic, fluoride and salinity ingress under 'groundwater protection zones'. This is in line with its mandate of protecting groundwater from depletion, deterioration, biological and chemical pollution. The Model Bill further includes a section on the need for undertaking environmental impact assessment specifically on the short-term and long-term impacts on quantity and quality of groundwater, impacts on agricultural production and so on (Government of India, 2016).

Although this Bill seems to be a step in the right direction, the formulation and implementation of State-specific Acts' following the guidelines of the Bill is another matter. Similar such Bill have been presented previously in 1992, 1996, 2005 and 2011. However, to date, only 14 States[1] have enacted a legislation for groundwater resource management (http://www.ielrc.org/water/doc_gw.php).

Push to Increase Groundwater Use

In lieu of the focus on a second Green Revolution, there are schemes like BGREI which include provision to subsidise asset building for individual farmers and farmer groups. 100 percent assistance is provided, to the tune of INR 30,000 for dug well and bore well, and INR 12,000 for shallow tube well, for construction activities (BGREI scheme guidelines). In addition, a 50 percent of subsidy on cost of pumpsets, up to INR 10,000 has also been provided under this scheme.

Such initiatives have received support by political parties at State level in some eastern States. Particularly appalling is the case of West Bengal where in spite of arsenic presence over permissible limit of 0.01 mg per litre in nearly 90 blocks, some of the State government agencies have supported

1 These 14 States are Andhra Pradesh, Assam, Bihar, Chhattisgarh, Goa, Haryana, Himachal Pradesh, Maharashtra, Kerala, Karnataka, Odisha, Tamil Nadu, Uttar Pradesh and West Bengal.

a conducive environment for increasing groundwater extraction for irrigation in February 2011, West Bengal State Electricity Distribution Company Limited (WBSEDCL) passed a policy resolution stating that it would provide new electricity connections to farmers against a payment of a fixed fee amounting between Rs 1,000 and Rs 30,000 per connection, depending on the connected load. This meant a reduction in expenses to farmers who would no longer bear the full cost of wires, poles and transformers, as required earlier (Mukherji et al. 2012). Furthermore, on November 09, 2011 the Water Resources Investigation and Development Directorate, Government of West Bengal changed a provision of the West Ground Water Resources (Management, Control and Regulation) Act, 2005. As per this amendment, farmers located in "safe" groundwater blocks and owning pumps of less than 5 horsepower (HP) and tube wells with discharge of less than 30 cubic metres per hour would no longer need a permit from the State Water Investigation Directorate to apply for electricity connection from WBSEDCL. The point to be noted here is that the blocks in 'safe' category are assessed only with respect to depth to water level by the CGWB. It has no bearing on the quality aspect of groundwater, which means that liberalisation of groundwater extraction in 'safe' arsenic contaminated blocks could aggravate the problem.

Conclusion

India ranks number one in terms of the country-wise ranking of groundwater extraction in the world, accounting for more than a quarter of extraction taking place globally (Chandrakanth, 2015: 9). The net annual groundwater availability for India was estimated at 411 billion cubic metres (bcm) and total annual groundwater draft for all purposes combined was 253 bcm, of which 91 percent was drawn for irrigation purposes and the remaining 9 percent was for domestic and industrial uses, as of 2013 (CGWB 2013).Without doubt, the resource is a crucial component for the country's agriculture sector,with nearly 80 percent of irrigated agriculture being supported by groundwater, and hence a significant contributor to achieving the goal of food security (Chandrakanth 2015: 10).

At national level particularly, we observe a lack of due attention towards the status of groundwater quality, its larger implications and initiatives in the right direction. In fact, significant increase in groundwater use in so-called groundwater abundant areas without proper appraisal of the available resource in terms of quantity, quality and other environmental conditions is noted.

Sustainable use of groundwater needs to be encompassed and imbibed in an all-pervasive sense by managing both quantity and quality deterioration of the resource. It further calls for understanding the long-run implications of extracting contaminated groundwater on the groundwater quality itself, on human health as well as on agricultural production. For instance, arsenic concentration in aquifer may increase with groundwater pumping and its usage over long periods can render agriculture unsustainable. Rainwater harvesting, tapping deeper arsenic-free aquifer or finding other alternative irrigation sources are some of the possible solutions whose feasibility may be assessed and accordingly implemented.

References

Abedin, Md. Joinal, J. Cotter-Howells and Andy A. Meharg(2002):"Arsenic Uptake and Accumulation in Rice (*Oryza sativa L.*) Irrigated with Contaminated Water,"*Plant and Soil*, Vol 240, pp 311-319.

Chakraborti, Dipankar, Bhaskar Das and Matthew T. Murrill (2011): "Examining India's Groundwater Quality Management," *Environmental Science and Technology Feature*, Vol 45, pp 27-33.

Central Ground Water Board (n.a.):"Anthropogenic Pollution of Ground Water – Mitigation Measures," Bhu-Jal Manthan, http://www.cgwb.gov.in/Bhujal-manthan/Anthropogenic%20pollution_revised.pdf

- (2013): Dynamic Ground Water Resources of India, Government of India.

Chandrakanth, M.G. (2015) *Water Resource Economics: Towards a Sustainable Use of Water for Irrigation in India*, Springer, New Delhi, India, pp: 1-20.

Grutzmacher, G. et al.(2013). Geogenic Groundwater Contamination – Definition, Occurrence and Relevance for Drinking Water Production,*Zbl. Geol. Palaont. Tell. I,* Jg, pp: 69-75.

Khan, A (2010). Accumulation of Arsenic in Soil and Rice under Wetland Condition in Bangladesh, *Plant and Soil,* 333(1-2), pp:263-274.

Mukherji, Aditi., Tushaar Shah. & Parthasarathi Banerjee (2012). Kickstarting a Second Green Revolution in Bengal, *Economic and Political Weekly*, 47 (18), pp: 27-30.

Pepper, Daniel (2008). The Toxic Consequences of the Green Revolution. [Available at:https://www.usnews.com/news/world/articles/2008/07/07/the-toxic-consequences-of-the-green-revolution] [Accessed July 17, 2017].

Singh, Munna & Krishan Kumar Verma (2013). Influence of Fluoride-Contaminated Irrigation Water on Physiological Responses of Poplar Seedlings, *Research Report*, April-June, 48(2), pp: 83-89.

The Economic Times (2015). Second Green Revolution will Happen in Eastern India: PM Modi, [Available at:http://economictimes.indiatimes.com/articleshow/47222397.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst] [Accessed on 12 July 2017].

The Hindu (2015). East Should Lead Next Green Revolution: Modi. [Available at: http://www.thehindu.com/sci-tech/agriculture/modi-urges-farmers-to-use-scientific-methods-to-boost-production/article7363923.ece] [Accessed 02 June 2017].

Times of India (2017). Make Way not for a Second Green Revolution, but for Evergreen Revolution [Available at: http://timesofindia.indiatimes.com/india/make-way-not-for-2nd-green-revolution-but-for-evergreen-revolution-says-pm-narendra-modi/articleshow/58856754.cms] [Accessed 24/07/2017].

ABOUT THE AUTHORS

Ramakrishna Nallathigala

Ramakrishna Nallathigala is an Engineer, Planner and Applied Economist by education. He has professional work experience of fifteen years and teaching experience of five years with interest in the areas of urban planning, development, policy, and governance reforms as well as environmental planning, policy and management. Currently, he is a faculty member at the National Institute of Construction Management and Research (NICMAR), Pune. He has several international and national journal papers to his credit. He also presented papers in national conferences and international conferences, both in India as well as abroad and reached at:

Maadhavi Sriram

A certified project Management professional (PMP) with about 17 years of managerial experience in Transport and IT sectors. Primary degree is in Mechanical Engineering with a post graduate diploma in IT. Currently associated with Centre for Good Governance (CGG) and she has been working extensively in eGovernance projects of various domains like Financial Management, Human Resource Management, warehouse management and Schemes & Project Monitoring systems. She was key resource person in implementation of several State-level as well as National level project monitoring systems and can be reached at:

Amit Kumar

Dr Kumar is an alumnus of Kirori Mal College, Delhi University and National Institute of Technology, Trichy (Tamil Nadu) at the undergraduate and postgraduate levels respectively. He has been associated with the university after completing his MBA in 2008. Dr Kumar's areas of interest include Marketing (specifically Branding) and Communication. He has published research papers in many peer-reviewed, reputed journals as well as conference proceedings along with attending international and national conferences and workshops related to the varied fields of management. He completed his PhD in the domain of Political Branding from GLA University, Mathura and can be reached at:

Somesh Dhamija

Associated with one of the most reputed universities of Northern India – GLA University, Mathura, in the capacity of Professor & Head (Management-UG), Prof. Dhamija is an acclaimed Academician and HR/Marketing Trainer par excellence. He has a judicious blend of corporate and academic experience of close to three decades. He has got published / presented a number of international and national research papers and also authored and edited books on Management. He has deftly organized numerous international and national conferences and has been actively associated with a number of training & Management Development Programmes (MDPs) and can be reached at:

Ramya Emandi

Ramya Emandi is a freelance author of articles & op-eds, a blogger and a speaker. She is an MBA and an Engineering graduate with profound experience of more than 6 years in the sectors of Oil & Gas and Sustainable Development. Her areas of interest are Global Economics, Socio-Political Public Policy & Economic Regulatory Frameworks Development. Her advice and insights in the area of economics & public policies, have been featured in electronic media (The Citizen, OpIndia.com, etc.). She volunteers in teaching and as visiting speaker at various platforms and envisions to impart education to economically backward sections and can be reached at: ramya.emandi@gmail.com

Debabrata Samanta

Dr.DebabrataSamanta, Assistant Professor, Chandragupt Institute of Management Patna, does research in Development Economics, Human Development Theory and Applied Microeconomics. Earned Doctoral Degree from Indian Institute of Technology Kharagpur and Masters in Economics from University of Calcutta. Published in national and international journals and national and internationally published book/edited volumes/handbooks. Provided research and consultancy services to World Bank and different State Government Departments. Provided policy suggestion and taken part in formulating policies focusing on poverty alleviation and ensuring accountability and land governance and can be reached at: debabrata_samanta@yahoo.co.in.

Shivani Narayan

Shivani Narayan, a management professional with research inclination. Provided support to the government of Bihar in implementation of prohibition policy while doing internship at KPMG, India. Presented her research at IIT Kharagpur. She earns her post graduate diploma in management from Chandragupt Institute of Management Patna and completed graduation in B.com specialized in Banking & Finance from University of Pune. She is currently working with Bajaj Petro Impex Private Limited and can be reached at: nshivani1993@gmail.com

Ankit Patel

Ankit Patel recently awarded Ph.D. degree in Sociology from Gujarat University, Ahmedabad. He did Master's in Sociology from M.S. University Baroda and M.Phil. from Central University of Gujarat, Gandhinagar. The topic of his M.Phil. dissertation was "Exploring the Impact of Science, Technology and Industrialization: The Case of Hajira Village in Gujarat" (With Reference to the Impoverish Risk Reconstruction Model). Development, Displacement, Rehabilitation, Environment, Climate Change are the major areas of interests. He published a couple of articles on the subject in various reputed journals and contributed papers to an edited volume. He also presented papers at the state, national and international seminars, workshops and conferences and can be reached at: appatelankitcug@gmail.com

Deepa Kylasam Iyer

Deepa Kylasam Iyer is an MPhil candidate in development studies at University of Cambridge and the research director of Cambridge Development Initiative. Her primary research area is land distribution in development and her dissertation explores how social movements open channels of institutional change in land holding and can be reached at dk547@cam.ac.uk

Tanya Agrawal

Tanya Agrawal is a Senior Analyst at Clinton Health Access Initiative, New Delhi. She is a public health professional with research interests in child and maternal health, nutrition and health care financing and can be reached attanya.ag1290@gmail.com

Francis Kuriakose

Francis Kuriakose is a Research Fellow at Erasmus University, Rotterdam. His research interests include economic theory, history of finance, behavioural economics as well as institutional aspects of higher education. His current research project explores how technology and automation alters institutional structures and can be reached at francis.kuriakose@gmail.com

I Maruthi

Dr I Maruthi is an Associate Professor& Head in the Agriculture Development Rural Transformation Centre (ADRTC), at Institute for Social and Economic Change (ISEC), Bengaluru. He obtained MA and M.Phil from Gulbarga University; and Ph.D from University of Poona, Pune. He published many papers and books. And also he completed several projects. And some of his papers are in pipeline. He has a vast experience in social change and rural development and can be reached at maruthi@isec.ac.in

Pesala Peter

Dr.Pesala Peter is working as a Consultant in ADRTC, at Institute for Social and Economic change (ISEC), Bengaluru. He worked different reputed institutions. He has presented papers in national and international seminars. So far he published nearly 24 papers including journals, papers in edited books and working papers and can be reached at: drpesalapeter@gmail.com

Madhavi Marwah

Madhavi Marwah is a PhD scholar at the Centre for Economic Studies and Policy, Institute for Social and Economic Change (ISEC), Bengaluru, (Karnataka). Her doctoral research is on environmental and institutional aspects of groundwater management in West Bengal, with specific focus on arsenic affected regions. She completed her MSc in Development Economics in 2012 from School of Oriental and African Studies, University of London (London). Prior to joining ISEC, she has worked with international organisations such as International Water Management Institute. Her research interests include water resource economics and management, environmental economics, institutional economics and can be reached at:

INSTITUTE OF PUBLIC ENTERPRISE

JOURNAL OF

GOVERNANCE & PUBLIC POLICY

ADVERTISEMENT TARIFF

Journal of Governance & Public Policy will accept a limited number of corporate and institutional advertisements. The size of the journal is 9.5" X 7.0". The tariff rates for the advertisement in the journal are as follows w.e.f. 01-January-2015.

Rs 1 lakh valid for 1 year	Advertisement (Back side cover page - Multi colour in two consecutive issues)
Issue-wise details	
Rs.75,000/-	Backside Cover Page - Multi Colour
Rs.50,000/-	Inner Cover Page - Multi Colour
Rs.40,000/-	One Full Page - Multi Colour
Rs.30,000/-	One Full Page - Black & White
Rs.20,000/-	Half Page - Multi Colour
Rs.15,000/-	Half Page - Black & White

Enquiries about corporate advertisements and appropriate art work should be sent to:

The Editor
Journal of Governance & Public Policy
Institute of Public Enterprise
OU Campus, Hyderabad - 500007

Contact Details **:** E-mail: editorgpp@ipeindia.org Mobile: 9391932156

INSTITUTE OF PUBLIC ENTERPRISE

COMMON SUBSCRIPTION FORM

To
The Publications Division,
Institute of Public Enterprise,
OU Campus, Hyderabad - 500 007
Telangana, India.

Dear Sir / Madam,

I/We wish to subscribe for the following Journal(s) for _____year(s) from _____ to _____.

S. No.	Journal Title	Annual Subscription Rates				Put a Tick (√) for Selection
		For India			For other countries	
		Individuals ₹	Academic Libraries ₹	Corporates ₹	Foreign Subscribers (US$)	
1	Journal of Economic Policy & Research	1500/-	2000/-	3000/-	200	
2	Journal of International Economics	1500/-	2000/-	3000/-	200	
3	Journal of Marketing Vistas	1500/-	2000/-	3000/-	200	
4	The Journal of Institute of Public Enterprise	1500/-	2000/-	3000/-	200	
5	Journal of Governance & Public Policy	1500/-	2000/-	3000/-	200	
6	IPE Journal of Management	1500/-	2000/-	3000/-	200	

Please find enclosed herewith a Demand Draft / Cheque, bearing No. _____ drawn on Bank _____ dated_____for Rs/US$. _____ (In words)_____drawn in favour of "**Institute of Public Enterprise**", payable at Hyderabad. Please effect the subscription from next issue onwards.

Names of the Journals for which subscription is sent:

1._____ 2._____

3._____ 4._____

5._____ 6._____

Journal Dispatch Address:

Name of the Individual / Organization_____

Address_____

City_____ Pin_____ Country_____ Ph. No._____

Mobile No._____ E-mail Address_____

Signature: **Office Seal:**

Institute of Public Enterprise

Institute of Public Enterprise (IPE), Hyderabad, is a non-profit educational society devoted to Education, Training, Research and Consultancy for business enterprises in public and private sectors. IPE is a premier B-School and is recognised as a 'Centre of Excellence' by the Indian Council of Social Science Research (ICSSR), Ministry of HRD, Government of India, for doctoral studies. It is also recognised by nine universities for guidance of PhD scholars. It has developed strong links with industry and academic institutions and is the founder member of the Association of Indian Management Schools (AIMS).

IPE strongly believes that HR development including education is crucial for economic growth. As part of its long-term education programme, the Institute runs an AICTE-approved PG Diploma in Business Management, which is also recognised as equivalent to MBA by the Association of Indian Universities (AIU). Added to it, the Institute offers MBA in Public Enterprise for practicing managers in collaboration with Osmania University. With the changing needs of the industry, the Institute also runs sector-specific PGDM programmes in Retail & Marketing, Banking, Insurance and Financial Services, Biotechnology and International Business, as well as an Executive PGDM programme.

The Institute has a strong research wing with a number of research scholars, sponsored by ICSSR and IPE, working on topics of current interest. Its PhD programme is one of the largest in social sciences. Research, both basic and applied, is the forte of the Institute and helps it in its training and educational activities. IPE's research studies are extensively used by the Committee on Public Undertakings (COPU), other Legislative and Government Committees, the Economic Advisory Council to the Prime Minister, several Ministries of the Government of India, Planning Commission, Standing Committee on Public Enterprises (SCOPE) and several Finance & Pay Commissions.

Apart from Journal of Governance & Public Policy, IPE also publishes six other journals titled:

- The Journal of Institute of Public Enterprise
- Journal of Economic Policy and Research
- Journal of Marketing Vistas
- Journal of International Economics
- Indian Journal of Corporate Governance
- IPE Journal of Management

United Nations

The United Nations (UN), with more than 190 member states, is the most important institution in the area of global governance.

Whatever may be its real and perceived inadequacies, the UN and its specialised agencies constitute an ever-growing realm of voluntary and not-so-voluntary compliance of international laws, rules, regulations, conventions, and practices by nation states and peoples around the world.

By all accounts, the UN system of the post-War vintage needs to be reformed and restructured to reflect the radically transformed global power structure implementation in the 21st century. Till that happens, the UN is the only 'inter-national' governing body available for mankind.

As such, no serious study of governance & public policy is complete without including the world body in its ambit.

INSTITUTE OF PUBLIC ENTERPRISE
Shamirpet Campus, Hyderabad - 500101.
Phone: +91-40-234 90 900 Fax: +91-40-234 90 999
www.ipeindia.org E-mail: editorgpp@ipeindia.org Website: www.ipeindia.org

Registered with the Registrar of Newspapers in India under Serial No. APENG/2011/45385

INSTITUTE OF PUBLIC ENTERPRISE

SHAMIRPET, HYDERABAD

South Asian Quality Assurance System | Association of Indian Universities | Under the aegis of ICSSR, MHRD, GoI | Approved by AICTE

TRANSFORMING STUDENTS INTO GLOBAL BUSINESS LEADERS

ADMISSIONS OPEN 2018-20

Why Join IPE?

- RANKED
  - 8th All India in Top Govt. B-Schools (CSR-GHRDC 2017)
  - 33rd Rank All India in Best B-Schools (Outlook 2017)
  - 15th Rank South Zone in Best B-Schools (The Week 2017)
  - 20th Rank South Zone in Best B-Schools (Business Today 2017)
  - B+ Rank in Best B-Schools (TIME MBA Education & Careers 2017)
- Excellent Placement and Internship Assistance
- State-of-the-art infrastructure with separate AC hostels for boys and girls
- Strong Industry Interface with Industry Associates and Corporate

- **Post Graduate Diploma in Management***$**
- **PGDM - Banking, Insurance and Financial Services***$**
- **PGDM - International Business***$**
- **PGDM - Retail Marketing**$**
- **PGDM - Human Resource Management*$**
- **PGDM - Executive***

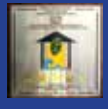
**** Approved by AICTE, recognized as MBA equivalent by AIU, NBA Accredited*

*** Approved by AICTE, recognized as MBA equivalent by AIU*

** Approved by AICTE*

$ AICTE approved program for Foreign Nationals, PIO, OCI, Gulf residents

AACSB Business Education Alliance Member



Institute of Public Enterprise, State of Art Shamirpet Campus - Awarded **'Five Star'** rating by **GRIHA**

Member of EUROPEAN FOUNDATION FOR MANAGEMENT DEVELOPMENT

Attractive Merit Scholarships for top scorers of CAT / XAT / GMAT / MAT / CMAT / ATMA

For eligibility and other details visit www.ipeindia.org

Tollfree: 1800 3000 4473

Contact: 9949507969 / 9391932129 Email: admissions@ipeindia.org