**Volume 6, Issue 3(1), March 2017**

# INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH

**Published by**
Sucharitha Publications
8-43-7/1, Chinna Waltair
Visakhapatnam – 530 017
Andhra Pradesh – India
Email: victorphilosophy@gmail.com
Website: www.ijmer.in

# Editorial Board


**Editor-in-Chief**
**Dr.K. Victor Babu**
Faculty, Department of Philosophy
Andhra University – Visakhapatnam - 530 003
Andhra Pradesh – India

## EDITORIAL BOARD MEMBERS

**Prof. S.Mahendra Dev**
Vice Chancellor
Indira Gandhi Institute of Development Research
Mumbai

**Prof.Y.C. Simhadri**
Vice Chancellor, Patna University
Former Director
Institute of Constitutional and Parliamentary Studies, New Delhi &
Formerly Vice Chancellor of
Benaras Hindu University, Andhra University
Nagarjuna University, Patna University

**Prof. (Dr.) Sohan Raj Tater**
Former Vice Chancellor
Singhania University, Rajasthan

**Prof.K.Sreerama Murty**
Department of Economics
Andhra University - Visakhapatnam

**Dr.V.Venkateswarlu**
Assistant Professor
Dept. of Sociology & Social Work
Acharya Nagarjuna University, Guntur

**Prof. P.D.Satya Paul**
Department of Anthropology
Andhra University – Visakhapatnam

**Prof. Josef HÖCHTL**
Department of Political Economy
University of Vienna, Vienna &
Ex. Member of the Austrian Parliament
Austria

**Prof. Alexander Chumakov**
Chair of Philosophy
Russian Philosophical Society
Moscow, Russia

**Prof. Fidel Gutierrez Vivanco**
Founder and President
Escuela Virtual de Asesoría Filosófica
Lima Peru

**Prof. Igor Kondrashin**
The Member of The Russian Philosophical Society
The Russian Humanist Society and Expert of
The UNESCO, Moscow, Russia

**Dr. Zoran Vujisiæ**
Rector
St. Gregory Nazianzen Orthodox Institute
Universidad Rural de Guatemala, GT, U.S.A

**Prof.U.Shameem**
Department of Zoology
Andhra University Visakhapatnam

**Dr. N.V.S.Suryanarayana**
Dept. of Education, A.U. Campus
Vizianagaram

**Dr. Kameswara Sharma YVR**
Asst. Professor
Dept. of Zoology
Sri. Venkateswara College, Delhi University, Delhi

**I Ketut Donder**
Depasar State Institute of Hindu Dharma
Indonesia

**Prof. Roger Wiemers**
Professor of Education
Lipscomb University, Nashville, USA

**Dr. N.S. Dhanam**
Department of Philosophy
Andhra University
Visakhapatnam

**Dr.B.S.N.Murthy**
Department of Mechanical Engineering
GITAM University
Visakhapatnam

**Dr.S.V Lakshmana Rao**
Coordinator
A.P State Resource Center
Visakhapatnam

**Dr.S.Kannan**
Department of History
Annamalai University
Annamalai Nagar, Chidambaram

**Dr. B. Venkataswamy**
H.O.D., & Associate Professor
Dept. of Telugu, P.A.S. College
Pedanandipadu, Guntur, India

**Dr.E. Ashok Kumar**
Department of Education
North- Eastern Hill University, Shillong

**Dr.K.Chaitanya**
Department of Chemistry
Nanjing University of Science and Technology
People's Republic of China

**Dr.Merina Islam**
Department of Philosophy
Cachar College, Assam

**Dr. Bipasha Sinha**
S. S. Jalan Girls' College
University of Calcutta, Calcutta

**Prof. N Kanakaratnam**
Dept. of History, Archaeology & Culture
Dravidian University, Kuppam
Andhra Pradesh

**Dr. K. John Babu**
Department of Journalism & Mass Comm
Central University of Kashmir, Kashmir

**Dr.T.V.Ramana**
Department of Economics, Andhra University
Campus, Kakinada

**Dr.Ton Quang Cuong**
Dean of Faculty of Teacher Education
University of Education, VNU, Hanoi

**Prof. Chanakya Kumar**
Department of Computer Science
University of Pune,Pune

**Prof. Djordje Branko Vukelic**
Department for Production Engineering
University of Novi Sad, Serbia

**Prof. Shobha V Huilgol**
Department of Pharmacology
Off- Al- Ameen Medical College, Bijapur

**Prof.Joseph R.Jayakar**
Department of English
GITAM University
Hyderabad

**Prof.Francesco Massoni**
Department of Public Health Sciences
University of Sapienza, Rome

**Prof.Mehsin Jabel Atteya**
Al-Mustansiriyah University
College of Education
Department of Mathematics, Iraq

**Prof. Ronato Sabalza Ballado**
Department of Mathematics
University of Eastern Philippines, Philippines

**Dr.Senthur Velmurugan .V**
Librarian
Kalasalingam University
Krishnankovil Tamilnadu

**Dr.J.B.Chakravarthi**
Assistant Professor
Department of Sahitya
Rasthritya Sanskrit Vidyapeetha, Tirupati

**Prof. R. Siva Prasadh**
Institute of Advanced Studies in Education
Andhra University, Visakhapatnam

**© Editor-in-Chief, IJMER®**
**Typeset and Printed in India**
**www.ijmer.in**

**IJMER,** Journal of Multidisciplinary Educational Research, concentrates on critical and creative research in multidisciplinary traditions. This journal seeks to promote original research and cultivate a fruitful dialogue between old and new thought.

# CONTENTS

**Volume 6** **Issue 3(1)** **March 2017**


| S. No | | Pg. No |
|---|---|---|
| 1. | Assessing Accountability in Ethiopian Public Sector: The Case of Oromia National Regional State<br>**Tefera Beyera Bayuma and Girma Teshome** | 1 |
| 2. | School Guidance in the Technological Era- A Vision for Future Guidance<br>**Vijayalakshmi.S** | 17 |
| 3. | A Study of Problems Faced by Malkapur Nagarpanchayat Regarding Solid Waste Management<br>**V. P. Deshmukh,S.V. Deshmukh and N. R. Jadhav** | 28 |
| 4. | Comparative Study on Anxiety among Sports Players<br>**Pradeepkumar and M.S.Pasodi** | 42 |
| 5. | Impact and Influence of Christian Missionary Services in Kurnool District of Andhra Pradesh<br>**Indira Santhi** | 48 |
| 6. | 'ಗುದ್ದು" ಕಥೆಯ ಅನಾವರಣ<br>**P.N.Geethamani** | 62 |
| 7. | A Study on Customer's Brand Preference for Household Appliances in Thiruvannamalai Town<br>**P.Sakthivel** | 66 |
| 8. | The Relevance of Five Precepts (pañca-sīla) of Buddhist Ethics in Contemporary Society<br>**Phan Ngoc Day** | 74 |
| 9. | An Analytical Exploration of the Reciprocity Between the Concepts of Dharma And Bhaktiwith Special Reference to the Philosophy of Vallabhācārya<br>**Poulosiju K. F.** | 88 |
| 10. | Immediate Effect of Progressive Muscle Relaxation on Physiolo Parameters Of Patients with Hypertension in A Selected Hospi Tamilnadu<br>**R.Malathy and M. Gandhimathi** | 98 |

| | | |
|---|---|---|
| 11. | Non-farm Livelihoods – Empowerment of Women- Sewing Machine Training Centres ––Livelihood Enhancement of Rural Women (SHG'S) in Chittoor Dist<br>**Ramesh Reddy.T** | 113 |
| 12. | Industrialization and Family Life Disintegration: A Case study of JK Cement Industrial Plant, Kashmir, India<br>**Rayees Ibrahim Lone and S.Subramani** | 123 |
| 13. | SocialMediaGives Voice To Voiceless Dalits In India:An Analysis<br>**S.Venkateswarluand I.Tarakeswara Rao** | 139 |
| 14. | Polarizability and Optical basicity of $Sm^{3+}$ ions doped Zinc Lithium Bismuth Borate Glasses<br>**S.L.Meena** | 150 |
| 15. | Human Rights and Panchayat Raj System in India-A Study<br>**S.P.Selvamani and V.Veeramuthu** | 165 |
| 16. | Achievements of C.N. Annadurai – A Study<br>**S.Theresammal** | 177 |
| 17. | Tourism Development in A.P. and Telangana - Drawing Lessons from The World's Top Tourist Destinations<br>**Suresh Chennam** | 185 |
| 18. | Orbits and Partition<br>**T.Srinivasarao** | 198 |
| 19. | The Association between Anthropometric Characteristics and 5000m Race Performance for Junior Male Athletes<br>**Zerihun Birhanu and Pallavi .A** | 202 |
| 20. | ज्योतिश्शास्त्रानुसारेण तृतीयदशमभावविचारः<br>**Prasanth P.S** | 213 |
| 21. | Protolytic Equilibriaof L-Orninthine and Ethylenediamine in PG-Water Mixtures<br>**Hadgu Hailekiros Belay and Toshome Abdo Segne** | 220 |

| | | |
|---|---|---|
| 22. | A Comparative Study on Application of Artificial Intelligence Techniques of Geographical Information System (GIS)<br>**Suphal Murmu** | 234 |
| 23. | Set Theory-Algebra<br>**M.D.Zafar Hassan** | 240 |
| 24. | Dr.B.R.Ambedkar's Perspectives on Women Empowerment<br>**E.Sudha Rani** | 262 |
| 25. | The Study of Desire in Emotional Attitudes<br>**N.Venkata Sreenivasa Rao** | 273 |
| 26. | Poona Pact between Ambedkar and Gandhi<br>**Ch.Bikshapathi** | 278 |

**Dr. K. VICTOR BABU**

M.A.,M.A.,M.Phil.,Ph.D.,PDF, (D.Lit)

Faculty of Philosophy and Religious Studies & Editor-in-Chief
International Journal of Multidisciplinary Educational Research (IJMER) &
Sucharitha: A Journal of Philosophy and Religion

Andhra University, Visakhapatnam
Pin - 530 003 , Andhra Pradesh – India

IJMER

**ISSN : 2277 – 7881**
**Impact Factor :4.527(2016)**
**Index Copernicus Value: 5.16**

2277 - 7881

JISRA JIF

## Editorial……

It is heartening to note that our journal is able to sustain the enthusiasm and covering various facets of knowledge. It is our hope that IJMER would continue to live up to its fullest expectations savoring the thoughts of the intellectuals associated with its functioning .Our progress is steady and we are in a position now to receive evaluate and publish as many articles as we can. The response from the academicians and scholars is excellent and we are proud to acknowledge this stimulating aspect.

The writers with their rich research experience in the academic fields are contributing excellently and making IJMER march to progress as envisaged. The interdisciplinary topics bring in a spirit of immense participation enabling us to understand the relations in the growing competitive world. Our endeavour will be to keep IJMER as a perfect tool in making all its participants to work to unity with their thoughts and action.

The Editor thanks one and all for their input towards the growth of the **Knowledge Based Society**. All of us together are making continues efforts to make our predictions true in making IJMER, a Journal of Repute

**Dr.K.Victor Babu**
**Editor-in-Chief**

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN : 2277-7881; IMPACT FACTOR – 4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# ASSESSING ACCOUNTABILITY IN ETHIOPIAN PUBLIC SECTOR: THE CASE OF OROMIA NATIONAL REGIONAL STATE

**Tefera Beyera Bayuma**
Senior Researcher
Governance and Capacity Building Policy Study and Research Department
Federal Democratic Republic of Ethiopia Policy Study and Research Center, Ethiopia

**Girma Teshome (PhD)**
Assistant Professor
Agricultural Economics
Haramaya University
Principal Researcher
FDRE Policy Study and Research Center, Ethiopia

## Abstract

Public servant accountability is a topical issue. Public sector reforms and increased demand for democratic space have given rise for the issue of enhancing accountability in public services of Ethiopia as a country in general and Oromia National Regional State in particular. This study dealt with assessing accountability in Public sector in Ethiopia focusing on Oromia National Regional State. For the study, primary data were collected from 150 respondents' selected using simple random sampling technique and 12 respondents using purposive sampling method through questionnaire and interview. Secondary data sources were also used to get additional data for the research. Major findings of the research indicated that emplaced legal instruments are not robust to inflict public servants accountable especial when they don't provide services expected. The rate of adherence to the set principles of accountability by public servants is very low and the existing accountability practices do not distinguish the performance of the employees in public offices in the study area causing employees less commitment and de-motivation in their public service activities. Therefore, to enhance accountability practices in public sector, there should be vibrant legal instruments that enforce public servants to be accountable for their service delivery activities. The government should

give attention and strengthened accountability practices by implementing change management tools include but are not limited to Business Process Reengineering and/or Citizens Charter. Accountability should not only consider action (making an error) but also inaction (not performing according to given responsibility) in the study area.

**Keywords**: Accountability, Good Governance, Public Sector, Oromia

## INTRODUCTION

In its simplest form, the word accountability implies being held into account for one's actions (Preston, 1992, Rouse, 1997). According to (Lawton and Rose, 1994), accountability is also defined as a process where a person or group of people are required to present an account of their activities and the way in which they have or have not discharged their duties. By inference, a person is held accountable for not only his/her actions but also inactions. Laxmikanth (2006) defined Public accountability as the obligation of public administrators to give a satisfactory account of their performance and the manner in which they have exercised powers conferred on them for public. Contemporary public interpretations of accountability tend to understand accountability as more than mere responsibility to perform a function, or simple answerability in the sense of presenting an account of action or inaction. Instead, it also includes the capacity for sanction. It is the apparent absence of punishment in the forms of sackings and resignations that leads to the observation that accountability is deficient or non-existent (MacCarthaigh & Boyle, 2014). An effective accountability is not just about reporting performance; it also requires review, including appropriate corrective actions and consequences for individuals (Auditor General of Canada, 2002).

Public servant accountability is a topical issue. Public sector reforms and increased democratic space have given rise to greater demand for enhanced accountability practice in public service more than ever before. Citizens now demand for fair treatment, efficient and effective service delivery. With this in mind, public servants and governmental institutions must re-look into how they serve the citizens and clients from the perspective of accountability for results and means as well (Minja, 2013). With important governance developments emerging in recent years across the whole public sector, it is timely to study accountability in the public sector in this changing context (Kluvers, 2010).

Public service delivery in Ethiopia suffers from weak capacity of public agencies and lack of effective transparency, responsiveness and accountability systems. Direct accountability of service providers to citizens is at the infant stage while the long route is characterized by top-down, slow bureaucratic processes that do not result in effective transparency, responsiveness and accountability ( Regional and Local Development Studies, 2013).

According to the study conducted by Ethiopian Federal Government policy study and research center (PSRC, 2015) on good governance, accountability practice is not well established in the country in general and Oromia Regional State in particular. So assessing accountability practice and its status in Ethiopia is a topical issue in addition to this especially accountability not in act (inaction) hasn't got attention which has great impact in service delivery in public sector. In general despite its importance, accountability in public sector is still relatively under-researched.

In order to assess the accountability status of public servants this paper has used the five dimensions of accountability proposed by Koppel, (2005). According to him the dimension of accountability are

transparency, liability, controllability, responsibility and responsiveness. Moreover accountability practice assessed based on (trends, enforcement, accountability for in action ,motivation and de-motivation), and mechanism of accountability (availability of code of conduct and regular evaluation on performance) in Oromia National Regional State which is one of the nine ethnically based regional state and sprawls over the largest part of Ethiopia.

## OBJECTIVES OF THE STUDY

The study set out to investigate accountability practice in public service of the study area with the following specific objectives. These are:

- To assess the status of accountability dimensions in the study area.
- To assess accountability practice in the study area.
- To identify mechanism of implementing public accountability measures in the study area.

## METHODOLOGY

This study has used a combination of exploratory and descriptive research designs to investigate the Public sector accountability practices in the study area. Both qualitative and quantitative data from primary and secondary sources were also used to get quality and appropriate information using questionnaire and interview. 150 sample public servants were selected from government offices of Revenue, Land administration, Trade and Market Development and Building Management sections using systematic sampling method. Moreover, 12 office leaders were selected purposively based on their experiences and responsibilities in the study area. Collected data were analyzed and presented using table, percentage and frequency.

## RESULTS AND DISCUSSION

### Demographic characteristics of Respondents

As Table1 indicates from the total public servant respondents of the study, 77 (51.3 %) are male and the remaining 73(48.7%) are female indicating both male and female are almost equally represented.

**Table-1: Sex composition of the Respondents**

| No | Gender | Frequency | Percentage |
|---|---|---|---|
| 1 | Male | 77 | 51.3 |
| 2 | Female | 73 | 48.7 |
| | Total | 150 | 100 |

**Source**: Own survey, Nov, 2016

### Education Status of the respondents

As it is indicated in Table 2, of the total 150 public servant respondents, 3(2%) of the respondents completed secondary education, 24(16%) of the respondents had completed Technical and Vocational Education and Training (TVET) and 123(82%) of the respondents had degree and above education level that shows respondents of the study critically respond to the questionnaire with understanding.

**Table -2: Education Status of the respondents**

| **No** | Educational status | Frequency | Percentage (%) |
|---|---|---|---|
| 1 | Secondary education | 3 | 2 |
| 2 | TVET and diploma | 24 | 16 |
| 3 | Degree and above | 123 | 82 |

**Source**: own survey, November 2016

## The status of accountability

As far as the status of accountability dimensions in public sectors is concerned, on average 37% of the respondents believed that accountability indicators variable found at low level (Table 3). The same table indicates that even there is a variation among the dimension of accountability in terms of their status of the case in point responsiveness and liability of the public servants are found at worst condition. Similarly according to interview made with Officials, accountability at all dimensions in the study area found at low level. According to Adama trade and market development head office, public servants are not accountability due to lack of follow up and lack of commitment of the leaders.

Table-3: Level of accountability dimension

| Level | Transparency | Liability | Controllability | Responsibility | Responsiveness |
|---|---|---|---|---|---|
| Very high | 12(8%) | 46(31%) | 14(9%) | 16(11%) | 15(10%) |
| High | 24(16%) | 30(20%) | 27(18%) | 30(20%) | 21(14%) |
| Medium | 33(22%) | 7(5%) | 35(23%) | 40(27%) | 31(21% |
| Low | 59(39%) | 61(41%) | 49(33%) | 46(31%) | 63(42%) |
| Very low | 22(15%) | 6(4%) | 25(17%) | 18(12%) | 20(13%) |

**Source**: own survey, November 2016

## An accountability practice

Accountability practices (trends, enforcement, and accountability for in action, motivation and de-motivation) and mechanism of accountability

(availability of code of conduct and regular evaluation on performance) are variables discussed as follows.

### A. Accountability trends

Table-4: Perception on trends of accountability practice

| No | Positive perception on trends of accountability practice | Frequency | Percentage (%) |
|---|---|---|---|
| 1 | Yes | 66 | 44 |
| 2 | No | 84 | 56 |

**Source**: own survey, November 2016

As one can observe in Table 4, about 44 % of the respondents agree with the existence of progress in accountability practice since 2005 E.C in their respective offices whereas 56% of the respondents perceive that there is no improvement in accountability practices. This indicates that more than half of the respondents believed that there is no accountability improvement in the study area.

Data obtained from Adama city revenue, land development and management, trade and market development and building office indicated that there was little improvement accountability practice due to which they believe high prevalence of corruption. Similarly interview conduct with Weliso and Asela head officials also show that there was no improvement in accountability practice due to lack of commitment among the officials.

### B. Enforcement of accountability

In principle the public servants should be accountable for decision they made while performing public work. In order to know the existing accountability practices, the respondents were asked the level of adequacy of accountability practices in their respective office.

Table-5: Sufficiency of accountability practices

| No | Sufficiency of accountability practices | Frequency | Percentage (%) |
|---|---|---|---|
| **1** | Strongly disagree | 21 | 14 |
| **2** | Disagree | 51 | 34 |
| **3** | Undecided | 51 | 34 |
| **4** | Agree | 24 | 16 |
| **5** | Strongly agree | 3 | 2 |

**Source**: Own survey, November, 2016

As it is depicted in Table 5, 14 % (21) of respondents strongly disagree with the public servants are sufficiently accountable for their action, 43% (51) respondents disagree with the public servants are sufficiently accountable for their action, 43% (51) of the respondent undecided with the statement. From the total respondents, 16% (24) of the respondent replied that they are agree with that public servants are sufficiently accountable for their action while the remaining 2%(3) strongly agree that public servants are sufficiently accountable for their action.

**Consequences of irresponsibility**

The need for sanction arises when the general interests of which useful actions are encouraged and their opposites are discouraged. Application of sanction to acts of authority forms part of the conditions essential for accountability. So that the employee asked to level the most frequently punishment system considered in case of violations of the responsibility in the study area in which the response is indicated in Table 8 as follows.

Table -8: Responses of public servants regarding types of measure

| No | Punishment due to irresponsibility | Frequency | Percentage (%) |
|---|---|---|---|
| **1** | Legal | 31 | 20 |
| **2** | Demotion | 26 | 17 |
| **3** | Transfer to another office | 90 | 60 |
| **4** | No accountability at all | 3 | 3 |

**Source**: own survey, November 2016

As it is displayed in Table 8, the respondents were asked about the response or punishment system to irresponsible actions of public servants. Thus, they replied that 20% legal measure, 17% demotion, 60% transfer to another office while the remaining 3% said that no accountability for one's action. The result showed that punishment system considered in case of violations of the responsibility is transfer to another office or position is the most usual practice.

### C. Accountability for inaction

To realize accountability it is expected that a person should be accountable for not only his/her actions but also inactions. As it is indicated in Table 6 about 42 % of the respondent said that there is accountability for inadequate performance or inadequate service provision (inaction), while the remaining 58% of the respondents believed that there is no accountability for inadequate performance or inadequate service provision. This indicates that more than half of the respondents believed that there is no accountability for inadequate performance or inadequate service provision in the study area.

Discussion with office holders indicate that even thought**,** procedures that guide accountability available, public servants are not abiding to the procedures inadequate manner. This indicate that there is no accountability for not providing adequate service for customers as there

is no enough follow up.. Similarity Adama, Asela and Weliso Building office representatives said that they do not ask the employee for not providing service for the customer up to the expected standard and even punishments are not common for the errors committed by public servants. But according to (Lawton and Rose, 1994), Accountability, is a process where a person or group of people are required to present an account of their activities and the way in which they have or have not discharged their duties. By inference, a person is held accountable for not only his/her actions but also inactions.

Table -6: Responses for accountability for in action

| **No** | Accountability for in action | Frequency | Percentage (%) |
|---|---|---|---|
| **1** | **Yes** | 63 | **42** |
| **2** | **No** | 87 | **58** |

**Source**: own survey, November 2016

### D. Availability of motivation and de-motivation based on the performance of employees

The result of the field survey (Table 7) indicated that majority of the respondent (**41**%**)** believed that reward and punishment systems are not well developed. Similarly according to interview with officers, official said even though reward and punishment system considered an important aspect of accountability as it promotes disciple, innovation and compliance, they are not implementing in their office. Lack of reward and punishment system in those towns has resulted in lack of disciple and innovation which impeded implementation of accountability. Lack of rewards for best performers resulted in workers demotivation. It is noted however that the system present in some sectors but they are not implementing it. Data obtained from land office indicated that even though some punishment measures like

writing warning letters, transfer to other position are practiced, such actions are not based on sufficient information and liable to subjection. Especially transfer to other position as a punishment measures create carelessness and irresponsibility attitude in the mind of the employee

Table -7: Availability of motivation and de-motivation based on the performance of employees

| **No** | Motivation | Frequency | Percentage (%) |
|---|---|---|---|
| **1** | Very high | 46 | 31 |
| 2 | High | 30 | 20 |
| **3** | Medium | 7 | 5 |
| 4 | Low | 61 | 41 |
| 5 | Very low | 6 | 4 |

**Source**: own survey, November 2016

### The mechanisms of public accountability

Accountability mechanisms and institutions are designed to control and constrain the power of the government and its officials through the instruments of accountability which include, judicial review, rule of law, public services' code of conduct, extra governmental accountability institutions and elections (Peters, 1995).

**Table -9:** Improvement in public service performance due to accountability mechanism

| **No** | Existence of significant Improvement | Frequency | Percentage (%) |
|---|---|---|---|
| 1 | Yes | 77 | 51 |
| 2 | No | 73 | 49 |

**Source**: Own survey, November 2016

As can be observed in Table 9, about 51 % of the respondent said that the existing accountability realizing mechanisms are expected to bring a significant improvement in public service performance while 49 % of the respondents believed that the existing accountability realizing mechanisms are not leading to a significant improvement in public service performance. This indicates that more than half of the respondents believed that there is accountability realizing mechanisms in the study.

### A. staff code of conduct

Employee's codes of conduct serve as a quick reference guide to actual statutes, policies or procedures; employees should consult the actual statute, policy or procedure to fully understand their obligations. It also enables the administrators to check and make accountable those employees who are not act accordingly.

Table- 10: Availability of staff code of conduct

| **No** | Availability of staff code of conduct | Frequency | Percentage (%) |
|---|---|---|---|
| **1** | Yes | 115 | 74 |
| **2** | No | 35 | 26 |

**Source**: Own survey, November 2016

As can be observed in the table 10, about 74 % of the respondent said that staff code of conduct is available there is availability of code of conduct for staff and 26% of the respondents believed that there is no code of conduct for staff in their organization.

### B. Reporting system

Information is central to effective accountability. The delegation of power and autonomy should be matched by an appropriate requirement

to report and account for its use. Actual performance would be judged against the objectives which were set at the policy-formulation, interpretation and execution levels. The reporting requirements would cover such things as type of report, format, content and reporting timetable. In order to assess the reporting system the employees were asked as there are reporting systems related to their regular works.

Table-11: Responses of public servants regarding evaluation on performance of employees.

| No | Regular performance evaluation | Frequency | Percentage (%) |
|---|---|---|---|
| ***1*** | Yes | 115 | 77 |
| ***2*** | No | 35 | 23 |

**Source**: Own survey, November 2016

As it is depicted in Table 11, about 77 % of the respondent said that there is a reporting system on the achievements and results of work performed and 23% of the respondents believed that there is no a reporting system on the achievements and results of work performed . This indicates that majority of the respondents believed that there is a reporting system on the achievements and results of work performed in the study area.

Data obtained from interview conducted with revenue head office indicated that there are reporting system and evaluation in their office. The problem is that the employees explain their performance on irregular bases, their report lack quality so that is not sufficient to make the worker accountable for their wrong doing and under performance. Moreover data from building office showed that the employees report their performance but not on regular bases and reports are not evaluated. Similarly data obtained from trade and market development office indicated that most employees have their

own job performance plan and report but it lacks continuities this make accountability implementation difficult.

## CONCLUSION AND RECOMMENDATIONS

Based on the result of this study, there is a variation among the dimension of accountability in practices in the study area. But responsiveness and liability of the public servants is found at worst condition than other accountability dimensions. According to the perception assessment of the respondents ,there is no improvement in accountability practice for the last 5 years in the government offices considered for this study due to lack of commitment among the leaders of the sectors to enforce the exiting accountability enforcement mechanism.

The study result also indicated that there are procedures that guide accountability for making error but not for inadequate performance or inadequate service in the study area. In addition to this even though reward and punishment system considered an important aspect of accountability, they are not implementing in study area. Lack of continuous reward and punishment system in those towns has resulted in lack of commitment of the employee. The existence of staff code of conduct and a reporting system on the achievements and results of work performed in the study area are some of the instrument for accountability realizing mechanisms. The employee was reporting their performance for their immediate bosses but their reports are not regular and well evaluated which used to differentiate those employees' underperformer and well performer.

To conclude there are legal instruments that require public servants to accountable for their performance while they are in office in the study area. The rate of adherence to these principles by public servants is very low and the existing accountability practice do not distinguish the performance of the employees so that those who have motivation and

commitment become de-motivated because high performer and low performer are the same. The effect of this is that public accountability in Ethiopia has not significantly improved since the research work of five years back.

Finally, effective Public Accountability is an essential ingredient for good governance the present procedures for public accountability enforcement in Ethiopia need to be strengthened. Accountability system in the study area should not only consider action (making error) but also consider inaction (not performing according to given responsibility). So accountability for service provision should be established. In addition to this administrative system in the study area is driven by complex rules and procedures and weak institutional support. The internal mechanisms of accountability in public sectors have been not effective .Therefore the external mechanisms of accountability must be strengthened to ensure accountability and good governance in Ethiopia.

## References

1. Auditor General of Canada, (2002). Modernizing Accountability in the Public Sector, Retrieved from http://www.oag-bvg.gc.ca/internet/docs/20021209ce.pdf.

2. David Minja, (2013). Accountability practice in Kenya's public service: lessons to guide service improvement, Vol.1, No.4, pp.54-63, Retrieved from www.ea-journals.org.

3. Kluvers, Ron, (2010). Mechanisms of Accountability in Local Government, Vol. 5, No. 7, Retrieved from www.ccsenet.org/ijbm.

4. Koppel. (2005). Pathologies of Accountability: ICANN and the Challenge of "Multiple Accountabilities Disorder".Retrievedfrom *onlinelibrary.wiley.com/doi/10.1111/j.1540-6210.2005.00434.x/pdf*.

5. Laxmikanth, M. (2006). *Public Administration*. New Delhi: Tata McGraw Hill Publishing Company Limited. Retrieved from http://www.redalyc.org/pdf/3887/388743876020.pdf.

6. Lawton, A., & Rose, A. (1994). *Organization and Management in the Public Sector*. London: Macmillan.

7. MacCarthaigh, M &Boyle, R. (2014). Civil service accountability: challenge and change , Retrieved from www.ipa.ie/pdf/IPA_Accountability_2014.pdf

8. Peters, B.G. (1995). The Politics of Bureaucracy, Fourth edition White Plains Longman. Retrieved from www.idiosi.org/mejsr18/(4)13/20.pdf

9. Preston, L. (1992). Forward. In World Bank (Ed.), *Governance and Development*, World Bank, Washington DC.

10. Policy study and Research center (2015). Bottle necks of leadership in realizing good governance in Addis Ababa, Ethiopia.

11. Regional and Local Development Studies. (2013).Governance and Public Service Delivery: The case of water supply and roads services delivery in Addis Ababa and Hawassa Cities, Ethiopia, Retried from www.pasgr.org/wp-content/uploads/2016/04/RLDS-Final-EPSD-Edited-version-in-progress-apr-261.pdf

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN : 2277-7881; IMPACT FACTOR – 4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# SCHOOL GUIDANCE IN THE TECHNOLOGICAL ERA- A VISION FOR FUTURE GUIDANCE

**Vijayalakshmi.S**
Ph.D. Research Scholar (F.T)
Dept. of Educational Technology
Bharathidasan University, Thriuchirapalli

## Back ground of the article

InM.I.Omousle (2013) cited that "The emerging world of the 21st Century is characterized by three features, namely, Globalization, the ICT (or Digital) Revolution and the emergence of the Knowledge economy" which is quoted by Bello, (2013). Education has to equip the individual with skills, talents and knowledge to face the needs of the revolutionary world. One of the major aims of education is to provide opportunities for every student to reach their full potential in the areas like education, vocational, career, personal, and emotional development. Guidance is an integral part of education and is centered directly on this function. Guidance and counseling services are to prepare the students to assume increasing responsibility for their decisions and grow in their ability to understand and accept the results of their choices (Gibson, 2008; Kauchak, 2011). The ability to make such intelligent choices is not inborn but, like other abilities it can be developed. In this paper the authors explains the need of innovations in school guidance and counseling programs.

The world has changed tremendously over the last three decades. There is less employment stability, more economic uncertainty, and more continuous change occurring than ever before, due to such forces as globalization and advancing technology. Social structures are also continuously changing by social and personal values of an individual which became more diverse.Moral values, relationship values of the society are changed due to impact of technology which

made a vital role on these changes.These changes also make impact and need of changes in guidance services where this made a path for innovation in guidance services.

## Guidance and School Guidance

Guidance which means to direct or to lead, it's a continuous process in an individual's life from womb to tomb. Guidance is a continuous process of helping the individual to develop to the maximum of their capacity in the direction, most beneficial to themself and to society.Carter V. Good has said in Dictionary of Education (1959), while defining guidance, "Guidance is a process of dynamic interpersonal relationships designed to influence the attitudes and subsequent behaviour of person." According to Sharma R. A. (2001) defined Guidance as a means of helping individuals to understand and use wisely the educational, vocational and personal opportunities they have or can develop and as a form of systematic assistance whereby students are aided in achieving satisfactory adjustment to school & to life."

Whereas, the guidance is provided through the school guidanceprogramme is called school guidance. The school guidance programme is the specific set of learning experiences which a school provides in response to the needs of the students.Knapp has given the definition of guidance as "Learning about the individual student, helping to understand himself, effect changes in him and his environment which will help him to grow and develop as much as possible."

## Evolution of Guidance in the Schools

In the beginning, the early 1900s, the term for school guidance and counseling was vocational guidance. It had a singular purpose. It was seen as a response to the economic, educational, and social problems of those times and concerned the entrance of young people

into the work world and the conditions they might find there. Economic concerns focused on the need to better prepare workers for the workplace while education concerns arose from a need to increase efforts in schools to help students, find purpose for their education as well as their employment. Social concerns emphasized the need for changing school methods and organization as well as exerting more control over conditions of labor in child-employing industries (United States Bureau of Education, 1914) Cited in Gysbers, Norman (2001).

As far as India is concerned, the techniques of guidance informally and incidentally can be traced far back to ancient times. The Panchathantra tales are well known for their moral stories. Guidance as an organized professional activities, in India guidance is started as academic discipline by Calcutta university in 1938 as introduction guidance as a section of its department of Applied Psychology to conduct research in the field of educational and vocational guidance.

The Government of India established the Central Bureau of Educational and Vocational Guidance at Delhi in 1954 to give technical advice and help in organisation of the guidance movement. It also offered assistance to the State Governments to establish their own State Bureaus and to provide guidance services in their secondary schools (All India Educational and Vocational Guidance Association in 1956). At present two major establishments, Government organisations and private agencies, are providing guidance and counseling programmes for school going children. The Government agencies include the Department of Educational Psychology and Foundations of Education, National Council for Educational Research and Training, State Bureaus of Guidance and the units of National Employment Service. There are many private agencies also actively engage in guidance and counseling programmes in various states.

## Benefits of Guidance Services in School

Benefits to students include:

- Students are prepared for the challenges of the future when their academic, career, personal/social development and community participation are supported
- Students are taught the skills for a lifetime of learning, career self-management and social interaction
- Students knowledge of our changing world is broadened
- Students career exploration and planning is facilitated
- Each individual student receives advocacy

Benefits to parents include:

- Their children are prepared for the challenges of the future
- There are increased opportunities for parent/school interaction.
- Parent access to school and community is facilitated.

Benefits to teacher include:

- The academic success of each student is supported
- Teachers guidance role is clearly defined
- Effort is provided to address student needs and educational goals.

Benefits to school counselor include:

- Provision of program content to each student is ensured
- The role of the school counselor as a student advocate is enhanced
- A clearly defined role and function is provided
- Critical counseling functions are focused on
- A tool for program management and accountability is provided.
- The academic mission of the school is ensured.

Benefits to administrators include:

- School counseling is integrated with the academic mission of the school
- Program structure is provided with specific content
- A means of evaluating school guidance and counseling programs is provided.

Benefits to community include:

- Community awareness of student support systems necessary for success is created.
- Economic development is enhanced through quality preparation of students for the world of work
- An increased opportunity for collaboration and participation of community members with the school program is provided
- The community is educated to the needs of the school and vice versa.

## Guidance Services Need and Indeed in the Technological Era

Guidance is a life- long process and its needs existed at all times. But now there is a greater and essential need for guidance services than before due to the rapid changes and advancement in technology, social change, moral change, personal attitudinal change, mental hygiene, globalization, liberalization, moral values on relationship, peoples' high level of aspiration etc.

The comprehensive school guidance and counseling program targets four main areas of development:

a) Academic – learning to learn
b) Career – learning to work
c) Personal – learning to live
d) Community Involvement – learning to contribute

### a. Academic area

## Increase in inequality of individual differences among school going children

Before independence, students in our country came from privileged section of the society. Boy's students given emphasis for education and

also the rural community people were neglected education for several facility issues. Whereas, now the scenario is reversed all the aspects education for all in all aspects like equality in caste, creed, gender and etc. urbanization is major impact in the technological era. Hence school guidance is required for promoting equality among students. Girls' student safety, protection should be given in school guidance services.

## Guidance as an Instrument for the Qualitative Improvement of Education

Student enrolment ratio has increased in recent years where the teacher and student ratio cannot be followed and the teacher attention to all the students are lacking in the present educational situation which leads to some falls in educational standard which can be nullified with the help proper school guidance services.

## Expanding Educational Objectives

As said by Gandhiji "By education I mean an all-round drawing out of the best in child and man-body, mind and spirit. Literacy is not the end of education or even the beginning." - [Harijan: July 31, 1937] cited in Ravindra Kumar (1999). Now education has become to bring all round development of the child. 'Education should bring about all-round development' (The Hindu-11th, June 2015). Now the parents need a sort of Education where the child all round development can be taken consideration which is possible only through guidance service.

## Solution to Educational Problems

Failures, dropout, wastage and stagnation are the major problems in education where this has been already addressed in guidance services. Now the universal education and inclusive education are the challenges in the field of education which need to be addressed in the school guidance services. Peer adjustment, teachers' methodology,

administration management in inclusive education can be brought to light through proper guidance services.

### Solving Discipline problems

Disciplinary problems are becoming more vigorous in school children. Students' improper usage of mobile phones technology has increased lot and the disciplinary values are missing among students. This can be handled carefully with appropriate guidance services.

### Optimum Achievement of the Students

Achieving the academic grades or marks became a goal of every student. Scoring optimum marks or grades has become task so the rote learning method is improved in students which lead to lack of cognitive and affective domain in the students. Optimum achievement with the impact of cognitive and affective domain can be enhanced by guidance.

### b.Career – learning to work
### Guidance as an Instrument for National Development

Human resource is the rich resource for development of any nation which helps to reduce the wastage and stagnation abilities. The link between human resource and education should be strengthening and it can be taken in to proper way by guidance services in the school.

### Job Awareness

Due to industrialization and globalization lot of job opportunities are available in our country. Lack of awareness of various job profiles and lack of specific skills enhancements is major problems in the society and a proper guidance service will help the students to aware of various job profiles and skills required for the same. Vocational guidance service can be strengthen with various job awareness skills required for it and the training for the skills can be included.

### Changed Economic Pattern and industry

Fast changes are taking place, today in economic pattern of the country. Profession has increased also the specialization has become the word in the present age and its difficult for common man to choose the correct choice of them. Hence guidance service for the technology era is very essential.

### c. Personal – learning to live

### Psychological Problems

Now a day many students faces lot psychological issue like tension, conflict, stress and etc. due to strain in educational achievements and high level of aspiration of parents on their children. Guidance services helps students gain an insight into the origins and development of emotional difficulties, leading to an increased capacity to take rational control over feelings and actions.

### Developmental problems

Emotional distress and behavioural challenges, arise developmental problems in individuals strive to deal with developmental stages and tasks. Any aspect of development can be turned into an adjustment problem, and it is inevitable that everyone encounters, at some time, exceptional difficulty in meeting an ordinary challenge. It is essential to provide guidance to the youth to solve their personal problems.

### Changed Family structure

Nuclear family system has emerged and both parents are employed no time for parents to spend time on their child's emotional growth. Children fails in sharing emotions in a proper way and which pulled them to use of technology more and Spending more time on what app, face book, chatting etc. which draws them in to unwanted relationships.

A sensitive guidance service can provide a solution for this kind of issues.

**Sex related problems**

Due to unnecessary usage of technology brings the child in to sex related problems. "Adolescence is a period of stress and storm". Proper sex education guidance is required for school children to overcome the sex related problems.

**d. Community Involvement – learning to contribute**

**Complex Nature of Society**

Privatization, universalization, globalization, modernization, technology advancement made a evolutionary changes in the society which makes the individual to compete with all the developments and make the individual to contribute to the society in a fruitful manner.

**Expansion of Population**

Population has increasing rapidly and the competition for survival also increased to the core level. This calls for intensive and extensive guidance services for schools.

**Avocation**

Spending leisure time in productive way is a crucial task of individual. In the advancement of technology leisure time in to productive can brought in to existence with guidance service.

**Suggestions**

There is no individual as same likewise there is no two schools are identical, and there is need of different guidance services for every school according to the need of schools

The guidance should be sensitive to gender and problem in the present world like proper usage of technology, emotional outfit,

personality enhancement, skills development, sex related issues and etc.

Guidance teachers or trainers or psychologist should be given more appropriate training, especially in counseling skills

Interpersonal and intra personal skills are to be cleared and carried out in the guidance service

A follow up should be made in current intervals in appropriate way should be made mandatory.

## Conclusion

As the life is getting complex day by day, the problems for which expert help is needed are rapidly increasing. Crow and Crow have rightly quoted, "As now interpreted, guidance touches every aspect of an individual's personality-physical, mental, emotional and social. It is concerned with all aspects of an individual's attitudes and behaviour patterns. Kothari Commission also has stressed the need of guidance services in the schools " Guidance services have a much wider scope and function than merely that of assisting students in making educational and vocational choices. The aims of guidance are both adjustive and developmental: it helps the student in making the best possible adjustments to the situations in the educational institutions and in the home. Guidance, therefore, should be regarded as an integral part of education."

## Reference

Carter V. Good. (1959). *Dictionary of Education.* New York:MC.Gr,aw-Hill.

Fred C. Lunenburg. (2010*).* School Guidance and Counseling Services.*Schooling.1 (1)*.1-9. Retrieved from http:// www. N ati on a lforum.com/Electro nic%20Journal%2 0Volumes/L unenburg ,%20Fred %20C.%2 0School% 20Guid ance%20a

nd%20 Counseling%20Services%20Schooling%20 V1%20 N1 % 20 2010.pdf

Gibson, R. L. (2008). *Introduction to guidance and counseling*. Upper Saddle River, NJ:Prentice Hall.

Gysbers, Norma. (2001). School Guidance and Counseling in the 21st Century: Remember the Past into the Future. *Professional School Counseling.5 (2).*

Kauchak. D. P. (2011). *Introduction to teaching: Becoming a professional.* Upper Saddle River, NJ: Prentice Hall.

Kumar, Ravindra. 1999. *Essays on Gandhism and P*eace. Meerut: Krishna Publication.

Omousle, M.I. (2013). *The ideal guidance and counselling unit for a university of the 21st century.*Retrieved from https://www.google.co.in/url?sa=t&rct=j&q=&esrc=s&source=web&cd =1&cad=rja&uac t=8& ved=0CB 0QFjAAahU KEwjnw eKI7- THA hWVkI4K HdxcAB0&u rl=http%3A%2F%2F www.oauife.edu.ng%2Fwp- content%2 Fuploads% 2F20 13%2F03%2FIDEAL-GUIDANCE-COUNSELLING-UNIT- FOR-A-University-Of-The-21st- CenturY.docx &usg= A FQjCN EVPgn eZzl HT X ay WCBPD ZTlEcTy0w&bvm=bv.102022 582,d.c2E

Sharma R. A. (2001). *Fundamentals of Guidance &Couselling*. U.P: Lall Book Depot.

The Hindu. (June 11th, 2015) 'Education should bring about all-round development'. Retrieved romhttp://www.th ehindu.com/news/nati onal/tam il-nadu/education-should-brin g-about-allroun d-de vel opment/article7303946.ece

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN : 2277-7881; IMPACT FACTOR – 4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# A STUDY OF PROBLEMS FACED BY MALKAPUR NAGARPANCHAYAT REGARDING SOLID WASTE MANAGEMENT

**Prof. Dr. V. P. Deshmukh**
Assistant Professor
Business Administration Department
Bharati Vidyapeeth Deemed University, Pune, Yashwantrao Mohite Institute of Management Karad

**Prof. Dr. S.V. Deshmukh**
Assistant Professor
Computer Application Department
Bharati Vidyapeeth Deemed University, Pune. Yashwantrao Mohite Institute of Management Karad

**Prof. Dr. N. R. Jadhav**
Director
Bharati Vidyapeeth Deemed University
Pune, Yashwantrao Mohite Institute of Management Karad

## Abstract

This paper presents an overview of current solid waste management practices adopted by Malkapur Nagar panchayat and the major problems faced by the Nagarpanchayat and suggest solutions to some of the major problems. This study mainly focuses on the issue of management of municipal solid waste in Malkapur town and also describes its existing systems, the way of dealing with the present upcoming problems and also suggests new innovative approach for effective management of municipal solid waste in Malkapur town. The overall objective is to create an efficient, reliable and holistic system for management of municipal solid waste, so as to achieve a cleaner environment and improve the quality of the overall municipal solid waste management system.

**KEY WORDS:** upcoming problems, innovative approach, efficient, reliable, holistic, cleaner environment.

## 1. INTRODUCTION

Malkapur was a 'gram panchayat until 2008 when it was awarded the status of 'Nagarpanchayat'. Nagar panchayat is the intermediate status between rural and urban levels of local self-government. Thus Malkapur is now semi-urban in nature and is in the transition state from rural to urban. Although Malkapur is a small town, a visionary and proactive leadership has helped the Malkapur nagar panchayat become the first town in Maharashtra to attain an innovative 24 x 7 water supply through a technology-enabled system. The nagar panchayat is also trying to develop a sound plan for managing the municipal solid waste.

## MUNICIPAL SOLID WASTE MNAGEMENT

**Waste:** According to the Wikipedia, waste is also known as rubbish, junk, garbage and litter. It is a pejorative term for unwanted materials. The term can be described as subjective and inaccurate because waste to one person may not to be another person. Waste may consist of unwanted materials left over from a community, household activities and organizations such as agriculture, production, mining, construction etc. The material may be discarded or accumulated, stored, or treated (physically, chemically, or biologically), prior to being discarded or recycled. It is also used to describe something we use inefficiently or inappropriately. [(1)]

**United Nations Environment Programme according to Basel Convention:** "'Wastes' are substances or objects, which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law"

**United Nations Statistics Division, Glossary of Environment Statistics (UNSD):** "Wastes are materials that are not prime products (that is products produced for the market) for which the initial user has no further use in terms of his/her own purposes of production, transformation or consumption, and of which he/she wants to dispose. Wastes may be generated during the extraction of raw materials, the processing of raw materials into intermediate and final products, the consumption of final products, and other human activities. Residuals recycled or reused at the place of generation are excluded. [(2)]

**Municipal Solid Waste Management,** according to UNDP (2004), is a complex task which must go beyond purely technical considerations to political, institutional, social, financial, and economic aspects. [(3)] Municipal solid waste includes refuse from households, non-hazardous solid waste from industrial, commercial and institutional establishments (including hospitals), market waste, yard waste and street sweepings. Municipal Solid Waste Management includes various functions as; collection, transfer, treatment, recycling, resource recovery and disposal of municipal solid waste. Generally, most of the municipalities follow a solid waste management system as depicted in the figure below:

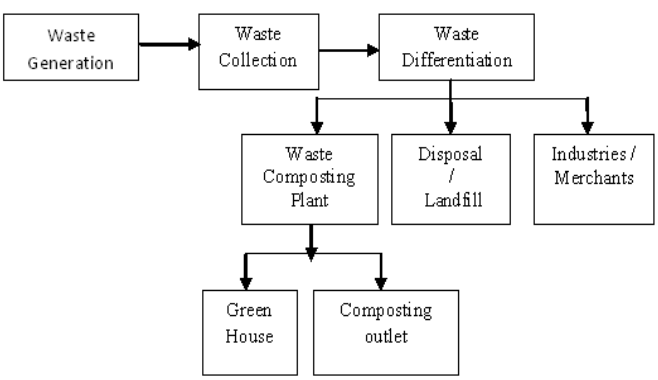



**Figure1: solid waste management system**

## 2. SCOPE OF THE STUDY:

- **Geographical Scope:** This study is confined to Malkapur town of Karad taluka and Satara district in Maharashtra state in India.
- **Conceptual Scope:** The focus of the study is on the solid waste management practices adopted by Malkapur nagar panchayat.
- **Analytical Scope:** The data collected, as part of the study will be analyzed properly to fulfill the objectives and test the hypothesis.

## 3.OBJECTIVE OF THE STUDY:

To study the present solid waste management practices of Malkapur Nagar panchayat and identify the major problems related to solid waste management practices of Malkapur nagar panchayat.

## 4.HYPOTHESIS OF THE STUDY:

There is significant relation between budgetary allocation and problems faced by the Nagarpanchayat.

## 5.RESEARCH METHODOLOGY:

The survey method was adopted for collecting the required data. The researchers have selected the following stakeholders for interviews and in-depth discussions.

1. Chief Officer of the nagar panchayat: 1
2. Citizens of Malkapur: 40
3. Employees of health department of nagar panchayat: 7
4. Managers of business establishments: 2

A well-designed questionnaire was prepared for collecting the data from the above-mentioned stakeholders of the nagar panchayat.

## 6. DATA ANALYSIS AND INTERPRETATION

**Table No:1: Major Problems of Solid Waste Management Faced by the Nagar panchayat**

| Statement | Agree | % | Disagree | % | Neutral | % |
|---|---|---|---|---|---|---|
| The solid waste management in our nagar panchayat is not an outcome of sound planning. | 34 | 68% | 10 | 20% | 6 | 12% |
| The staff of waste management department is not highly motivated. | 30 | 60% | 10 | 20% | 10 | 20% |
| The staff members of solid waste management department lack proper planning. | 25 | 50% | 18 | 36% | 7 | 14% |
| The equipment used by the staff of solid waste management is obsolete. | 35 | 70% | 9 | 18% | 6 | 12% |
| The department has adequate number of transport vehicles. | 10 | 20% | 32 | 64% | 8 | 16% |
| Maintenance of vehicles is poor due to administrative hassles. | 23 | 46% | 15 | 30% | 12 | 24% |
| The overall public dustbin management is poor. | 7 | 14% | 35 | 70% | 8 | 16% |
| Proper funding does not back the entire effort of solid waste management. | 8 | 16% | 30 | 60% | 12 | 24% |
| There is lack of public awareness, which affects adversely the solid waste management practices. | 15 | 30% | 20 | 40% | 15 | 30% |
| The public co-operation with respect to solid waste management is poor. | 16 | 32% | 18 | 36% | 16 | 32% |

**Graph No:1: Major Problems of Solid Waste Management Faced by the Nagar panchayat**

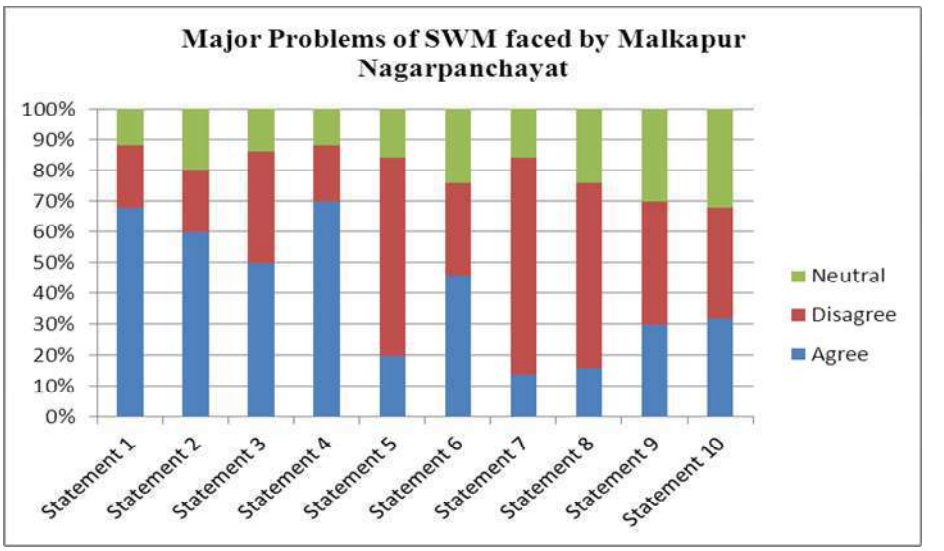



**Chart: Problems of SWM faced by the Malkapur Nagar panchayat**

**From the results presented in the above table, it can be seen that,**

**1.** Majority of 68% citizens agree that the solid waste management in their nagar panchayat is not an outcome of sound planning. While 20% of the citizens disagree with the statement that the solid waste management in their nagar panchayat is not an outcome of sound planning.

**2.** Majority of 60% citizens agree that the staff of waste management department is not highly motivated and only 20% of the citizen disagree with the statement that the staff of waste management department is not highly motivated. While 20% citizen were not sure about their opinion and remained neutral.

**3.** 50% of the citizens agree that the staff members of solid waste management department lack proper planning. While 36% of citizens disagree with the statement that the staff members of solid waste management department lack proper planning 14% citizens remained neutral and did not respond.

**4.** 70% of the citizens agree that the equipment used by the staff of solid waste management is obsolete. While 18% of the citizens disagree with the statement that the statement equipment used by the staff of solid waste management is obsolete and 12% citizens remained neutral and did not respond.

**5.** Majority of the citizens (64%) disagree that the department has adequate number of transport vehicles. While 20% agree with the statement that the department has adequate number of transport vehicles and 16% citizens remained neutral and did not respond.

**6.** 46% of the citizens agree that maintenance of vehicles is poor due to administrative hassles, 30% disagree with the statement and 24% remained neutral and did not respond.

**7.** Majority of the citizens (70%) disagree that the overall public dustbin management is poor while only 14% agree with the statement that the overall public dustbin management is poor.

**8.** 60% of the citizens disagree with the statement that proper funding does not back the entire effort of solid waste management, 16% of citizens agree and the same percent of citizens remained neutral and did not respond.

**9.** 40% of the citizens disagree with the statement that there is lack of public awareness, which affects adversely the solid waste management practices and 30% of citizens agree with the statement.

**10.** 36% citizens disagree with the statement that public co-operation with respect to solid waste management is poor. However, 32% of citizens agree with the statement.

## 8. TESTING OF HYPOTHESIS:

For testing of the set hypothesis, the researcher has collected the necessary information from different stakeholders with respect to problems faced by the Malkapur nagar panchayat while implementing solid waste management practices. The various stakeholders are divided in two categories i) Citizens and ii) Others. Others include business establishments, employees of health department of the nagar panchayat and chief officer of the nagar panchayat.

There is a significant relationship between the budgetary allocation and performance of Solid Waste Management in the selected municipalities.

**Purpose:** To study the significance relation between the budgetary allocation and problems faced by the Nagarpanchayat.

**Let,** $H_0$: There is no significant relationship between the budgetary allocation and problems faced by the Nagarpanchayat.

$H_1$: There is a significant relationship between the budgetary allocation and problems faced by the Nagarpanchayat.

**Statistical test**: To find the relationship between the budgetary allocation and problems faced by the Nagarpanchayat, Karl Pearson's correlation coefficient technique is used as correlation is a statistical test which helps in analyzing the covariation of budgetary allocation with problems faced by the Nagarpanchayat

**Level of significance:** $\alpha = 0.05$

**Table No 2: Correlation between Budgetary Allocation and problems faced by the Nagarpanchayat**

| **Particulars** | **Correlation between Budgetary Allocation and** problems faced by the Nagarpanchayat | | |
|---|---|---|---|
| | r-value | t-value | p-value |
| Mean score of problems faced by the Nagarpanchayat regarding Solid Waste Management scores | 0.9254 | 3.6739 | 0.0094* |

Source: Primary Data

**Observation:** From the results of the above table, it can be seen that, a significant positive relationship is observed between budgetary allocation and problems faced by the Nagarpanchayat ($r=0.9254$, $p<0.05$).

**Conclusion:** Hence the null hypothesis is rejected and the alternative hypothesis is accepted. This infers that problems faced by the Nagarpanchayat regarding solid waste management is directly dependent on the budgetary allocation made by the municipality. Proper management of budgetary allocation is required to overcome the problems regarding solid waste management.

## 9. OBSERVATIONS AND FINDINGS

1. It is observed that solid waste management practices implemented by the Nagar panchayat are not an outcome of sound planning.
2. It is observed that the staff of the solid waste management department of nagar panchayat is not motivated.

3. It is observed that the staff members of solid waste management department lack proper planning.
4. It is observed that the equipment used by the staff of solid waste management department is obsolete.
5. It is observed that department has adequate number of vehicles.
6. It is observed that maintenance of vehicles is poor due to administrative hassles.
7. It is observed that overall public dustbin management is poor.
8. It is observed that proper funding does not back the entire effort of solid waste management.
9. It is observed that there is lack of public awareness, which affects adversely the solid waste management practices.
10. It is observed that the public co-operation with respect to solid waste management is poor.

## 10. SUGGESTIONS

1. It is suggested that there should be sound planning of solid waste by the government.
2. It is suggested that there should be high motivational policies adopted by the respective officer towards the solid waste management practices provided by the nagar panchayat.
3. It is suggested that there should be proper planning of solid waste practices adopted by the nagar panchayat.
4. For the purchase of equipment and vehicles sound and proper budgetary allocation should be required.
5. It is suggested that new equipment should be purchased for the collection of solid waste because the existing equipment are old.

6. It is suggested that there should be sufficient number of vehicles for collection of solid waste.
7. It is suggested that there should be proper maintenance of vehicles at regular interval.
8. It is suggested that the public dustbin management should be improved. The area around the public dustbin is not clean. Many a times the dustbins overflow, which results in littering around the dust bins. So a strict time schedule for replacement of the public garbage bins should be followed.
9. It is suggested that there should be proper budgetary allocation for solid waste management programme.
10. It is suggested that the nagar panchayat should organize public awareness programmes for the citizens about solid waste management.
11. It is suggested to design a solid waste management programme in which the public participation is required.

## References

### Research Articles

1. Katkar, A.A. "Improvement of Solid Waste Collection by Using Optimization Technique". *International Journal of Multidisciplinary Research,* Vol.2, Issue 4, (April 2012): n. pag. Web.10 Jan. 2013.
2. Khajuria. "Estimation of Municipal Solid Waste Generation and Landfill Area in Asian Developing Countries". *Journal of Environmental Biology*, Vol.31, Issue 5, (Sep 2010): pp.649-650.Web.10 Jan. 2013.
3. Onwughara." Issues of Roadside Disposal Habit of Municipal Solid Waste, Environmental Impacts and Implementation of Sound Management Practices in Developing Country Nigeria".

*International Journal of Environmental Science and Development*, Vol.1, No.5, (2010): n.pag. Web.10 Jan. 2013.

4. Niringiye, Douglason O.G. "Determinants of Willingness to Pay for Solid Waste Management in Kampala City". *Current Research Journal of Economic Theory,* Vol.2, No.3, (2010): pp.119-122.Web.12 Jan. 2013.
5. Markovic D., Dragoslav J., Jovanovic M., Nikolic V. "Application Method for Optimization in Solid Waste Management System in the city of Nis". *Facta Universitatis Series: Mechanical Engineering,* Vol. 8, No. 1, (2010): pp. 63 – 76. Web.12 Jan. 2013.
6. Mamdouh A., Messery, Gaber A. Ismail, Anwaar K., Arafa. "Evaluation of Municipal Solid Waste Management in Egyptian Rural Areas". *The Journal of the Egyptian Public Health Association*, Vol.84, No.1 & 2, (2009): pp.95-97. Web.15 Jan. 2013.
7. Deshpande V.P., Gawaikar V. "Source Specific Quantification and Characterization of Municipal Solid Waste". *IE (I) Journal-EN*, Vol 86, No. 1, (2006): pp. 33-38. Web.15 Jan. 2013.
8. Xiaomin Li, Marta F., Colin D., PaulaJ., Simon S. "Accelerated carbonation of municipal solid waste incineration fly ashes". Elsevier Ltd. Waste Management Vol.27, No.9, (2006), pp. 1200-1206. Web.15 Jan. 2013.

## Research Papers

9. Wang H., He J., Kim Y., Kamata T. "Municipal solid waste management in small towns: An economic analysis conducted in Yunnan, China". *WPS 5767 Policy Research Working Paper, The World Bank Development Research Group Environment and Energy Team*, (2011): pp.130 137. Web.18 Jan. 2013.
10. Teresa B. "Assessing the solid waste management practices in Bacolod city, Philippines". *4th Asian Rural Sociology Association (ARSA) International Conference,* (2010): pp. 37-44, Web.18 Jan. 2013.
11. Rodic L., Sheinberg A., Wilson D. "Comparing solid waste management in the world's cities". *ISWA World Congress 2010,*

*Urban Development and Sustainability – a Major Challenge for Waste Management in the 21st Century, Hamburg, Germany, (15-18 November 2010)*: pp. 318-325. Web.18 Jan. 2013.

12. Visvanathan. "Solid Waste Management in Asian Perspectives". *Environmental Engineering and Management Program School of Environment, Resources and Development Asian Institute of Technology, Pondicherry Government Report,* (2006): pp. 1-15. Web. 18 Jan. 2013.
13. Themelis N.J. "Solid Waste Management in Vietnam". *An Industrial Ecology Study by Thao Nguyen School of International and Public Affairs, Columbia University*, (2004): pp. 8-20. Web.18 Jan. 2013.
14. Sarkar P. "Solid Waste Management in Delhi – A Social Vulnerability Study". *Third International Conference on Environment and Health, Chennai, India, Chennai: Department of Geography, University of Madras and Faculty of Environmental Studies, York University,* (2003): pp.451– 464. Web.18 Jan. 2013.
15. Achankeng E. "Globalization, Urbanization and Municipal Solid Waste Management in Africa". *African Studies Association of Australasia and the Pacific 2003 Conference Proceedings - African on a Global Stage,* (2003): pp.1-22. Web.19 Jan. 2013.
16. Zurbrugg C. "Urban Solid Waste Management in Low-Income Countries of Asia, how to Cope with the Garbage Crisis". *Scientific Committee on Problems of the Environment (SCOPE) Urban Solid Waste Management Review Session, Durban, South Africa,* (2002): pp.1-13. Web.19 Jan. 2013.
17. Kinnaman T.C., Fullerton D. "The Economics of Residential Solid Waste Management". *National Bureau of Economic Research. 1050 Massachusetts Avenue, Cambridge.* (1999): pp.1-47. Web.20 Jan 2013.

**URL**

18. http://gen.doh.hawaii.gov.in. Web. 28 Mar 2013.
19. http://www.dec.ny.gov.in. Web. 28 Mar 2013.

20. http://www.annigeritown.gov.in Web. 23 Mar. 2013.
21. http://www.nswai.org.in. Web. 23 Mar. 2013.
22. http://mpcb.gov.in.Web. 24 Mar. 2013.
23. http://ecosanservices.org.in.Web.24Mar.2013.
24. http://www.cyen.org.in.Web.28Mar. 2013.
25. http: //mahenvis.nic.in. Web. 28 Mar. 2013.
26. http://swmindia.blogspot.in.Web. 28 Mar. 2013.
27. http://www.indiaenvironmentportal.org.in.Web. 28 Mar. 2013.
28. http://moef.nic.in.Web. 20 Mar. 2013.
29. http://www.nswai.org.in.Web. 20 Mar. 2013.
30. http://www.pas.org.in. Web. 20 Mar. 2013.
31. http://www.krepublishers.com. Web. 23 Jan. 2013.
32. http://www.ipublishing.co.in. Web.10 Feb. 2013.
33. http://omicsonline.org.in.Web. 4 Apr. 2013.
34. http://www.pas.org.in. Web. 10 Mar. 2013.
35. http://www.tiss-uirf.in. Web. 13 Mar. 2013.
36. http://mahenvis.nic.in. Web. 14 Mar. 2013.
37. http://www.znrfak.ni.ac.rs. Web. 13 Mar. 2013.
38. http://www.moef.nic.in. Web. 13 Mar. 2013.
39. http://mahenvis.nic.in. Web. 13 Mar. 2013.
40. http://mahenvis.nic.in. Web. 13 Mar. 2013.
41. http://jnnurm.nic.in. Web. 13 Mar. 2013.
42. http://finance.rajasthan.gov.in. Web. 13 Mar. 2013.
43. http://www.worldbank.org Web.16 Mar. 2013.

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN : 2277-7881; IMPACT FACTOR – 4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# COMPARATIVE STUDY ON ANXIETY AMONG SPORTS PLAYERS

**Mr.Pradeepkumar**
Ph.D Research Scholar
Dept. of Physical Education
Gulbarga University,Gulbarga

**Dr.M.S.Pasodi**
Director
Dept. of Physical Education
Gulbarga University,Gulbarga

## Abstract

Anxiety is a physiological and psychological state characterized by cognitive, somatic, emotional, and behavioural components. These components combine to create an unpleasant feeling that is typically associated with uneasiness, apprehension, or worry. Anxiety is a generalized mood state that occurs without an identifiable triggering stimulus. As such, it is distinguished from fear, which occurs in the presence of an external threat. Additionally, fear is related to the specific behaviors of escape and avoidance, whereas anxiety is the result of threats that are perceived to be uncontrollable or unavoidable.

The present study deals with the level of Anxiety among sports players of kalabuaragi district , The researcher tried to find out the significance difference in the selected psychological variable among individual and group game players both male and female players, the sample of the study randomly selected from the government degree colleges of kalaburagi district, Karnataka. research tool A. K. P. and L. N. K. Sinha's Comprehensive Anxiety test. This widely used test has sound reliability (test retest 0.85 and internal consistency (0.92) and validity (0.62). having the 90 items to measure the anxiety. The collected data scrutinized with help of SPSS statistical tool and also used the statistical techniques like mean, SD, t-value are used to prove the research hypothesis of the study.

**Key word –** Anxiety, Sports Players.

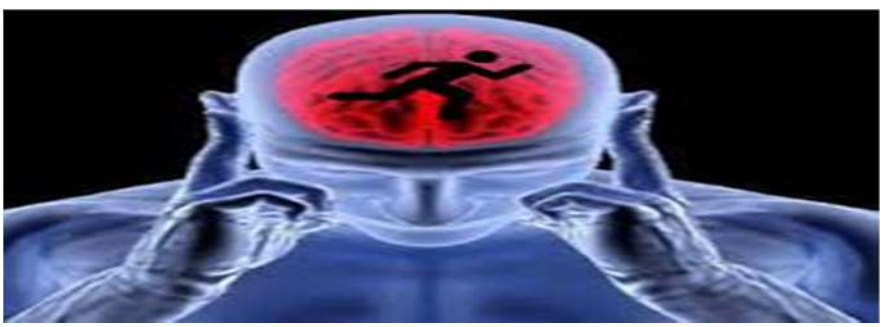
## Introduction

**Anxiety** is an emotion characterized by an unpleasant state of inner turmoil, often accompanied by nervous behavior, such as pacing back and forth, somatic complaints, and rumination. It is the subjectively unpleasant feelings of dread over anticipated events, such as the feeling of imminent death. Anxiety is not the same as fear, which is a response to a real or perceived immediate threat, whereas anxiety is the expectation of future threat. Anxiety is a feeling of uneasiness and worry, usually generalized and unfocused as an overreaction to a situation that is only subjectively seen as menacing. It is often accompanied by muscular tension, restlessness, fatigue and problems in concentration. Anxiety can be appropriate, but when experienced regularly the individual may suffer from an anxiety disorder.

People facing anxiety may withdraw from situations which have provoked anxiety in the past. There are various types of anxiety. Existential anxiety can occur when a person faces angst, an existential crisis, or nihilistic feelings. People can also face mathematical anxiety, somatic anxiety, stage fright, or test anxiety. Social anxiety and stranger anxiety are caused when people are apprehensive around strangers or other people in general. Furthermore, anxiety has been linked with physical symptoms such as IBS and can heighten other mental health illnesses such as OCD and panic disorder. The first step in the management of a person with anxiety symptoms is to evaluate the possible presence of an underlying medical cause, whose recognition is essential in order to decide its correct treatment. Anxiety symptoms may be masking an organic disease, or appear associated or as a result of a medical disorder.

Anxiety can be either a short term "state" or a long term "trait". Whereas trait anxiety represents worrying about future events, anxiety disorders are a group of mental disorders characterized by feelings of

anxiety and fear.[10] Anxiety disorders are partly genetic but may also be due to drug use, including alcohol, caffeine, and benzodiazepines (which are often prescribed to treat anxiety), as well as withdrawal from drugs of abuse. They often occur with other mental disorders, particularly bipolar disorder, eating disorders, major depressive disorder, or certain personality disorders. Common treatment options include lifestyle changes, medication, and therapy



## Review Literature

Sridevi K V (2013) analyzed the "Relationship among General Anxiety, Test Anxiety and Academic Achievement of Higher Secondary Students" in the present study an attempt was made to find out the relationship between anxiety and academic achievement of higher secondary school students. This area of research has been of considerable interest to teachers who have observed that some children

appear to perform below their best in situations characterized by a high degree of stress. It was expected that students with high anxiety would be more likely to perform less adequately throughout their studies than would non-anxious students. The Higher secondary level is a turning point in the life of the adolescents. The students and their parents take the decisions of their career selection during this transition period. Adolescents of our schools have many disturbing problems that often interfere with their academic achievement. Anxiety and anxiety related problems are very common during adolescence. The investigator randomly selected a total number of 12 schools for the study that included Government, Private aided and Private unaided schools. Sample comprised 180 students for the study. The findings of the study are: 1) there is a positive high correlation between general anxiety and test anxiety. 2) There is a negative low correlation between general anxiety and academic achievement 3] There is a negative low correlation (-0.222) between test anxiety and academic achievement of higher secondary students.

## Method

Significance of the study to measure the anxiety level among sports players of kalaburagi district. The study to find the significance difference between sample groups.

## Objectives

- To find out the level of anxiety of sports players of kalaburagi district.
- To find out the significance difference among group and individual games players.
- To find out the significance difference among male and female sports players.

## Hypothesis

- There is significance difference in the level of anxiety in sports players due to nature of the games..

- There is significance difference between male and female sports players in their anxiety level.

**Sample**

Fifty individual and fifty group game players both male and female players, the sample of the study randomly selected from the government degree colleges of kalaburagi district, Karnataka.

**Tool**

A. K. P. and L. N. K. Sinha's Comprehensive Anxiety test. This widely used test has sound reliability (test retest 0.85 and internal consistency (0.92) and validity (0.62). having the 90 items to measure the anxiety.

**Statistical Techniques**

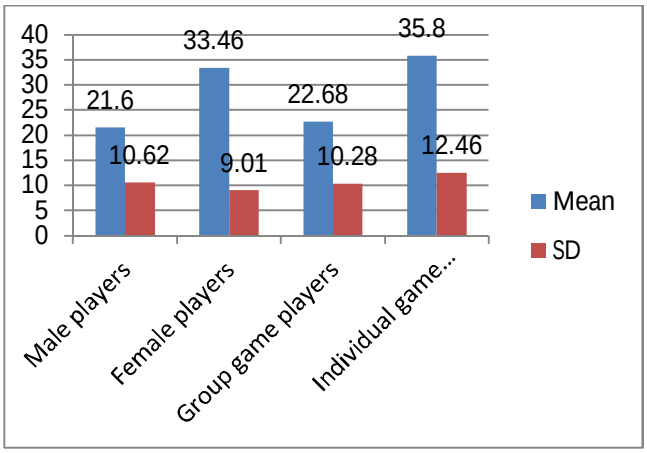
Mean, SD, t-test are used in the study to prove the research hypothesis of the study.

**Data Analysis**

**Anxiety among male and female / group and individual games players**

| Sample Groups | N | Mean | SD | t-Values |
|---|---|---|---|---|
| Male players | 50 | 21.60 | 10.62 | 5.298** |
| Female players | 50 | 33.46 | 9.01 | |
| Group game players | 50 | 22.68 | 10.28 | 6.165** |
| Individual game players | 50 | 35.80 | 12.46 | |

**Significance at 0.05**level.**




The table and graph are showing the mean score and standard deviations of sample groups, the male sports players scored mean 21.60 the counterpart female sports players mean score is 33.46 according to the manual of the scale higher the mean score indicates higher the anxiety level. The group game players are having less anxiety than the individual sports players of the kalaburagi district.

The study showing there is significance in level of anxiety among male and female and group and individual games players of kalaburgi district of Karnataka India.

## Conclusion

- There is significant difference in anxiety among the sports players.
- There is significant difference in anxiety level in male and female sports players
- There is significant difference in anxiety among group and individual sports players

## Reference

1. Seligman, M.E.P.; Walker, E.F.; Rosenhan, D.L. Abnormal psychology (4th ed.). New York: W.W. Norton & Company.
2. Davison, Gerald C. (2008). Abnormal Psychology. Toronto: Veronica Visentin. p. 154. ISBN 978-0-470-84072-6.
3. American Psychiatric Association (2013). Diagnostic and Statistical Manual of Mental Disorders (Fifth ed.). Arlington, VA: American Psychiatric Publishing. p. 189. ISBN 978-0-89042-555-8.

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN : 2277-7881; IMPACT FACTOR – 4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# IMPACT AND INFLUENCE OF CHRISTIAN MISSIONARY SERVICES IN KURNOOL DISTRICT OF ANDHRA PRADESH

**M. Indira Santhi**
Research Scholar
Department of History
Rayalaseema University-Kurnool.A.P

Though it was initiated in the need of proselytization, this was by no means confined to this purpose alone and took the general interests and needs of the society as well. Since the process of social change was always linked to the growth of education, the missionary education had created a new social consciousness among the downtrodden sections in the later period of Andhra region. Christians believe that Christianity is the gift of the Heavenly Father, the God of the universe, Creator of everything that exists, the Master of the History of the universe and the destiny of mankind. Christianity is the revelation of God's unparalleled love for man inspite of man's great revolt and unrighteousness. It is not to be listed just as one of the religions of the world, however ancient, philosophical or comprehensive and complicated they may be. Christianity is the way of life - a new way based on the Truth[1]

In Andhra Pradesh the work done by the foreign Christian missionaries has been continued by the established Churches in the State. In addition to this, various individuals, on their own accord and voluntarily engaged in preaching the Gospel of Jesus Christ and converting the people into Christianity through Baptism and various other methods. This has no doubt resulted in the increase of Christianity and Christian population in Andhra Pradesh all through the years.[2]

**Hard work yields success:**

In this a presentation of the services rendered by the Christian missionaries is highlighted as in a bird's eye view to start with before they are given an analytical outlook of the information gathered on a broader spectrum with Kurnool and the district of Kurnool in mind. Firm footing, Religious practice, Local dialect, Understanding, Sharing and Overcoming the issues of the local people with a non-pareil service attitude were of utmost importance to the Christian missionaries in Kurnool. They were by far the most successful in finding solutions for the superstitions and the social evils hitherto corrupting the day to day lives of the inhabitants of the social sector leading to anarchy.

The Christian Missionaries (1), who came to India, established their residential areas in the initial stages. They decided to introduce their religious practices in their teaching. Giving prime importance to forming an understanding with the local literature (TELUGU), they decided to come out with a policy on customs and religion. Christianity could not reach the forward castes easily. Missionaries faced many problems in their effort to change the problem. Villagers were given more priority than towns in establishing the Christian Churches. Christian religion was able to attract the rural and the poor to some extent. Added to this, natural calamities like drought, infectious diseases, and ill health made the Missionaries busy in rescuing operations, with their commitment of character They provided educational and medical facilities, and set rehabilitation centers and thus tried to draw the attention of the local people with their service attitude.[3]

In addition to the above churches there are various other splinter churches and missions like India Pentecostal Mission (1932), Tirunavelli Mission (1903), Malugu Misison (1917), Arakuloya Mission (1934), Alampu Mission (1924), Parakal Mission (1927), World

Missionary Evangelism (1960), India Bible Mission (1938), Brethren Mission (1969) Christ Church (1963), and Roman Catholic Churches which are engaged in the propagation of the gospel of Jesus Christ and involved in converting non- Christians into Christian faith.

In Andhra Pradesh the work done by the foreign Christian missionaries has been continued by the established Churches in the State. In addition to this, various individuals, on their own accord and voluntarily engaged in preaching the Gospel of Jesus Christ and converting the people into Christianity through Baptism and various other methods. This has no doubt resulted in the increase of Christianity and Christian population in Andhra Pradesh all through the years.

After the formation of Church of South India, the efforts for Church Union in Rayalaseema region were started. At that time the Christian Missions which were operating in Rayalaseema area were; the London Missionary Society (LMS) in Cuddapah, Kurnool and Anantapur districts; the Church of India, Burma and Ceylon (CIBC) which formed as Society for Propagation of Gospel (SPG) in Nandyal and some parts of Kurnool district; the American Arcot Mission (AAM) in Madanapalli area of Chittoor district and Kanarese Church of Mysore diocese in Adoni town of Kurnool district. However the London Missionary Society being operated in three districts of Rayalaseema namely Cuddapah, Kurnool and Anantapur districts was reorganised into two Telugu Dioceses namely Cuddapah Diocese and Anantapur-Kurnool Diocese with one Bishop for each Dioceses. These two Dioceses functioned under a Combined Committee known as 'Telugu Combined Committee (Te.C.C.) of London Missionary Society. Consequent of Church Union Movement, the CIBC (SPG) Mission, American Arcot Mission and the Kanarese Church of Mysore Diocese, all in a phased manner joined together and formed into Church of South India - Rayalaseema Diocese (CSI - RD) on July 16, 1950 along with the

installation of Rt. Rev. H.Sumitra as its first Bishop. A constitution for the Rayalaseema Diocese was also drafted by a Five Member Drafting Committee and was accepted at a meeting of Rayalaseema Diocese on July 17, 1950.

**Employment and Economic Development:**

Education has been a great factor in economic upliftment. Education of formal, vocational and industrial character created employment opportunities for the converts to achieve economic progress. The missionaries recognized that the development of a self-supporting Church could be achieved only through economic uplift of the converts. The economic development of a community presupposes the community's own conviction and awareness of the need of education, along with its commitment to shoulder responsibilities for enhancing its capacity.

Over a period of Christian involvement in Coastal Andhra, one could observe various levels of economic mobility. The first converts were largely illiterate people, the majority of whom were from the depressed castes and were engaged in agrarian works or were pursuing traditional caste-based occupations. The very first batch of students who got educated in mission schools were able to get employment either in the mission's own institutions or in the government, especially in the departments of railways and education.[4] There were also upwardly mobile persons who found employment as professionals: as doctors, nurses, lawyers, teachers and pastors. In a report of 1907, Rev. J. Heinrichs had observed that, "In many parts of the Telugu districts there was a desire among the Súdras for schools taught by Christian teachers," [5] indicating the employment status of Christians in schools. The Dornakal Diocese had employed over 1200 men and women as teachers who had received their education in Elementary Boarding Schools for boys and girls.[6] Christians were also

employed as clerks in government offices, teachers in schools, medical assistants and tradesmen in cottage industries, catechists and evangelists.[7] According to Bishop Pickett, much economic improvement had occurred among the mass movement converts.[8] In a survey conducted in early 1930s by the Mass Movement Commission, it was found that the graduates holding responsible and remunerative positions in the society were sons and grandsons of poor and illiterate converts.[9]

Employment opportunities were also available to them thanks to the construction projects of the colonial government, such as the construction of the Buckingham Canal as an extension of the Madras canal to Bezwada via Nellore, a network of roads and railways, works on a large number of government office buildings in different towns, etc.[10]

The Mission and the Churches did much for the economic welfare of the converts by cultivating a desire for better living conditions, stimulating eagerness to increase one's earnings, campaigning against extravagant practices, instructing on better health care and better sanitation, fighting evil habits that destroyed one's earnings and fostering a sense of self respect.[11] Economic upliftment also took place through reduction in wasteful expenditure of all kinds such as alcohol consumption and marriage expenses. Reduction in alcohol consumption resulted in more effective work and better health among the men. A number of Christians testified that much less was spent at their weddings than in their pre-Christian days.[12] The Mission also seems to have facilitated economic improvement of the converts through cooperating with the government for raising the level of daily wages and eliminating the influence of middlemen.

**Medical Service and Health Care Education:**

The medical services of the CMS were undertaken with the help of the CEZMS's lady missionaries. The notable CEZMS lady missionaries were Miss Penny at Kammamett, Miss Turnbull, Miss Digby, Miss Alexander and Miss Symonds at Ellore who had rendered medical help for the poor outcaste women of the surrounding villages who thronged the hospitals and dispensaries. Miss Graham, a trained nurse was sent to Dummagudem to help the missionaries Rev. J. and Mrs. Cain in 1885. The mission established hospitals at Khammamett, Dummagudem and Bezwada.[13] The missionaries also facilitated both curative and preventive medical treatment in collaboration with the Government, in times of epidemics like Malaria, Cholera, Small Pox, Dysentery, Diarrhea and Plague.[14]

The duties of a medical missionary were mainly conducting itinerating trips, visiting villages, staying a day or two if needed, giving elementary medical treatment besides preaching the Gospel. While working in hospitals, the medical missionary also preached religion wherever possible, through interactions, conversations, and disseminating Christian literature such as books and tracts.[15] The missionaries also attempted to spread medical awareness among the people and advocated scientific methods in sanitary practices and preventive methods during epidemics. This seems to have facilitated women as homemakers to maintain cleanliness and adopt better health practices in homes.

Promoting better health care was another concern of the missionaries for which they initiated a scheme to instruct students at schools drawing up even a special syllabus for it which was included in the moral education. Students were apprised of the dangers of various addictions such as tobacco, alcohol, etc. by using appropriate visual and literary materials.[16] Overall, our documents say that there was much

improvement in the health of the Christian converts over a period of time.

**Socio-Cultural Reforms:**

The process of conversion among the converts invariably involved certain transformation in social and cultural life.[17] The missionaries attempted to convince the converts of the need to discard negative habits on the one hand, and adopt positive ones, on the other. Habits such as drinking, smoking, quarrelling, cheating, gambling, witchcraft, worship of the deities and other practices were expected to be given up.[18] Special committees on Temperance, Mental and Social Hygiene and 'Christianizing the Home' were set up which created greater awareness of the evils of these habits among the people. Positively, the benefits of cleanliness and hygienic practices were also highlighted.[19] The impact of such advocacy was such that in one instance, the village committee forced out a liquor shop from its precincts.[20] In another case, the converts gave up the practice of beef eating.[21]

Training in cleanliness and wellness apparently changed the appearance of the villages.[22] The former filthy ambience of the Māla hamlets in Kistna district was no longer visible, at least from early 20th century, as has been noted in a missionary report which accords credit to the missionary efforts for the same change.[23] Cases of poisoning of the cattle, abusive language and drunken brawls became uncommon.[24]

A greater amount of cleanliness in dress and surroundings was observed among the converts and the change inevitably influenced the interaction of the higher castes who once commented: "We dare no longer to use foul language. The Christians would not work for us if we did".[25] A rich landowner at Chattannavaram during his time of death asked his grandchildren never to do anything without Matangi Abraham, a poor Christian whom he trusted in all money matters

because 'he was a Christian'.[26] Their caste employers showed them more sympathy and positively honored their teachers and pastors. Christians were found to be more reliable in credit transactions by the Cooperative Credit Societies. [27]

The apparent betterment of the converts seems to have induced non-Christians to follow the religion of the Christians.[28] The impact of conversion may appear to be exaggerated in Rev. Pickett's words, when he referred to the early 20th century caste converts from the Kamma caste who commented thus: 'none of our people would have become Christians if they had not first seen what happened to the Mālas.[29] About ninety per cent of all higher caste converts attributed their conversion wholly, or in part, to the influence upon them of the changes they had observed in the converts from the depressed castes.[30]

On the religio-cultural front, the Christianity as propagated by the CMS did not smack foreignness although it was propagated by European missionaries in the beginning. The Christianity of the Mālas was much more Indianized as it retained and adapted many indigenous ceremonies, customs, traditions and worship practices [31] This was reflected in aesthetics, art, music and architecture of the native Christians as noted by Rev. Padfield.[32] Church worship was found very solemn and dignified, accompanied by indigenous music and instruments. The ritual of the offertory in Christian puja was done in native style. The faithful brought rice, vegetables and first fruits of garden crops, cattle and poultry to the altar as offering in typical Indian manner.[33]

With regard to the social aspect of marriage, Christian marriage rules and rites had to be adopted in place of age-old practices of child marriage and uncle-niece marriage.[34] Only a licensed pastor would solemnize marriages between native Christians and only after ascertaining the age of the bride and the bridegroom, by referring to

their record of baptisms. In the absence of such a record, Village Register of Births and Deaths were referred.[35] However, Bishop Azariah tried to integrate certain pre-Christian and Christian customs in the marriage ritual keeping the cultural sensibilities of the people.[36] In short, unlike conversion in Goa and other places during the Portuguese era, which entailed a complete abandonment of native customs, traditions and cultures, the Māla Christianity under the CMS did not cause cultural ruptures: the converts inculturated Christian worship by retaining certain indigenous customs and traditions wherever these did not contradict Gospel values.

Though the Missionaries worked in different service sectors, they simultaneously worked for a common cause of religious expansion with their mutual understanding and awareness. They did not interfere in politics. But the big change that the Missionaries brought in society is an incredible achievement indeed!

**Kurnool District :- Positive Influence of the Missionaries (Pre Independence- Post Independence Period)**

1. Service in Social Sector(1)

- The personal life style of the Christian Missionaries was very simple and modest.
- They maintained disciplined lives with good standards of life.
- They worked hard and they proved by their example that it is not wrong to work hard and in fact it promotes good health.
- They explained to people the importance of economy in a family.
- They taught how to live happily with low income.
- In the society of that day, they organized industrial exhibitions,

- They conducted and supervised Harvesting festivals of that time.
- They made the Church and the society achieve self dependence.
- The Christian Missionaries encouraged woman-education.
- The Christian Missionaries started their efforts to spread Christianity through women.
- They provided opportunity for all to get education irrespective of racial caste, religious and regional differences.

They started "Janana"(1) School. Through these Janana Schools, they used to educate women in their houses as they could not go to school. They used to teach the Bible as a part of the education.[37]

**Service in the Education Field**

- In the field of education, the Missionaries introduced the latest method by giving up the traditional and ancient Gurukula system (1) of education and enabling equal representation from all classes of society.
- Even though it was decided not to make Bible Preaching mandatory, the main aim was to preach Christian religion.
- They set up schools for the poor boys and girls, habitation Schools for women who would not come out of their houses, and professional schools for those without basic education.
- They administrated plans for schools, in those days the topics/subjects for study were Grammar, History, Geography, Social Studies and General Science.
- The Christians treat Sunday as a Holiday. This observation of "Sunday Holiday" by the Missionaries is in force even today.
- They appointed teachers by giving them special training.

- They gave Women education a new fillip by opening and spreading special schools for girls and Janana Schools for women.
- They were the first to introduce education to children in English medium.
- The mission schools developed further by receiving grants from the government.
- Irrespective of caste, religion and class differences, Schools, Libraries, Reading Rooms, Technical Educational Centers were made accessible to one and all.
- Since the method of teaching was in English medium in Missionary schools, students were not only able to gain good control over English but get access to western knowledge also for further development. With this good grasp of western knowledge educationists of modern times to drive school evils away and progressed with a firm determination of mind to build modern society.

Lately, Thus the Christian Missionaries have successfully eradicated all superstitious or beliefs from the very face of Andhra region. With the influence of Christian Missionaries, the communal harmony has been restored. Women are treated on par with men. They enjoy all the privileges with ease. The caste prejudices have been subdued. The ideals of oneness and fraternity are achieved in the society. The prospects of Christianity in Andhra at present, are more assuring than ever. Silently and steadily it advances in spite of the great obstacles thrown in its way. The selfless efforts of various Christian Missionaries have borne fruit resulting in the alleviation of social evils, development of education and upliftment of the masses in general. It resulted in the restructuring of the socio-

economic and political scenario of the Kurnool District. The leaven of Christianity is today pervading through the evolution of things also point to that distant vision of the Christian seer.

**References:**

1. Solomon Doraiswamy (1986) published a book entitled 'Christianity in India - A Unique and Universal Mission'.
2. Paul D. Wiebe (1988) in his book 'Christians in Andhra Pradesh' brought out the services of Mennonite Church Missionaries in the drought prone Mahaboobnagar District of Andhra Pradesh.
3. Indian Christian of St. Thomas by Brownie
4. Yagati Chinna Rao, "Education and Identity Formation among Dalits in Colonial Andhra" in ed. Sabyasachi Bhattacharya, Education and the Disprivileged: Nineteenth and Twentieth Century India, (New Delhi: Orient Longman, 2002), 102.
5. A. T. Fishman, For This Purpose: A Case Study of the Telugu Baptist Church in Its Relation with South India Mission of the American Baptist Foreign Mission Societies in India, (Madras: Diocesan Press, 1958), 64.
6. Eyre Chatterton, op cit.
7. The Dornakal Diocesan Magazine, March 1934, Vol. XI, No 3, (Dornakal: Diocesan Press, 1934), 17.
8. Ibid.
9. Ibid, 16.
10. Report on the Administration of the Madras Presidency during the Year 1890-91, (Madras: The Government Press, 1891), 109; also see Emma Rauschenbusch Clough, While Sewing Sandals or Tales of a Telugu Pariah Tribe, (London: The Selwood Printing Works, 1899), 274.
11. The Dornakal Diocesan Magazine, February 1934, Vol. X, No 2, (Dornakal: Diocesan Press, 1934), 10.
12. The Dornakal Diocesan Magazine, March 1934, Vol. XI, No 3, op cit, 19.

13. Barnes, H. Irene., Behind the Purdah, op cit, 209.
14. Report on Vaccination in the Madras Presidency for the year 1901-02, (Madras: The Government Press, 1903), 221; Also, The Dornakal Diocesan Magazine, March 1934, Vol. XI, No 3, op cit, 17.
15. Rutter J Williamson, The Healing of the Nations: A Treatise on Medical Missions, (New York: The Student Volunteer Movement for Foreign Missions, 1899), 81.
16. Administration Report of the Abkari Revenue: 1915-16, (Madras: The Government Press, 1917) 4.
17. Archibald G. Baker, Christian Missions and a New World Culture, (Chicago: Willett Clark & Co Publishers, 1934), 192.
18. Samuel Jaya Kumar, Dalit Consciousness and Christian Conversion: The Work of SPG Missionaries, Historical Resources for a Contemporary Debate, Mission Theology in an Asian Context, (Delhi: ISPCK Publishers, 1999), 256.
19. Proceedings of the Eighth Meeting of the National Christian Council, (Nagpur: Central India Printing Works 1940), 79.
20. "Extracts from the Minutes of Fourth Session of the Dornakal Diocesan Council held in Bezwada on December 1927" in The Dornakal Diocesan Magazine, March 1928, No 3, (Dornakal: Diocesan Press, 1928), 4.
21. The Dornakal Diocesan Magazine, September 1930, Vol. IX, No 9, (Dornakal: Diocesan Press, 1930), 9.
22. The Dornakal Diocesan Magazine, March 1934, Vol. XI, No.3, (Dornakal: Diocesan Press, 1934), 19.
23. John Craig, Forty Years among the Telugus: A History of the Mission of the Baptists of Ontario and Quebec, Canada to the Telugus, South India 1867-1907, (Toronto: 1908), 115.
24. The Dornakal Diocesan Magazine, May 1928, Vol. 4, No 5, (Dornakal: Diocesan Press, 1928), 6.
25. Ibid, 4.
26. Ibid, 8.
27. The Dornakal Diocesan Magazine, March 1934, Vol. XI, op cit, 18.

28. Sherwood Eddy, India Awakening, (New York: Missionary Education Movement, 1911), 100.

29. J. W. Pickett, Christian Mass Movements in India, op cit, 52-53.

30. Ibid, 60.

31. Heike Liebau,"Indianisation and Education: Reaction from Protestant Christians of the Madras Presidency to the Lindsay Commission Report", op cit, 46

32. Eugene Stock, Volume III, op cit, 471.

33. The Dornakal Diocesan Magazine, October 1928, Vol. 5, No.10, op. cit, 3.

34. A.T. Fishman, Culture Change and the Underprivileged: A Study of the Madigas in South India under Christian Guidance, (Madras: Christian Literature Society, 1941), 176.

35. L. B. Wolf, After Fifty Years: or an Historical Sketch of the Guntur Mission of the Evangelical Lutheran Church of the General Synod In the United States of America, (Philadelphia: Lutheran Publication Society, 1896), 313.

36. Susan Billington Harper, In the Shadow of the Mahatma, op cit,196.

37. History of Christian Missionaroies in Andhra Pradesh by Dr. Mangamma

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN : 2277-7881; IMPACT FACTOR – 4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# "ಗುದ್ದು" ಕಥೆಯ ಅನಾವರಣ"

– ಪಿ.ಎನ್. ಗೀತಾಮಣಿ
ಪ್ರಾಧ್ಯಪಕರು
ಕರ್ನಾಟಕ ರಾಜ್ಯ ಮಹಿಳಾ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಬಿಜಾಪುರ,
ಬಿ.ಹೊಸೂರು ಕೇಂದ್ರ, ಮಂಡ್ಯ

'ಗುದ್ದು' ಒಂದು ಸಣ್ಣಕಥೆಯ ಪ್ರಕಾರಕ್ಕೆ ಸೇರಿದ ಗ್ರಾಮೀಣ ಬದುಕನ್ನು ತನ್ನ ಒಡಲಿನಲ್ಲಿ ಅನಾವರಣ ಮಾಡಿಕೊಂಡಿರುವ ವಿಶಿಷ್ಟ ವಿನ್ಯಾಸದ ಕಥೆಯಾಗಿದೆ.

'ಗುದ್ದು' ಕಥೆಯ ಶೀರ್ಷಿಕೆಯೂ ಹೌದು, ಕಥೆಯ ಜೀವಾಳವೂ ಹೌದು. 'ಗುದ್ದು' ಸಾಮಾನ್ಯ ಅರ್ಥದಲ್ಲಿ ಅವಲೋಕಿಸಿದಾಗ ಸತ್ತವರ ನೆನಪಿಗಾಗಿ ಕಟ್ಟುವ ಸಮಾಧಿ ಎಂದು ಹೇಳಿದ್ದರೂ ಇದರ ಪರಂಪರೆಯನ್ನು ತಿರವಿ ಹಾಕಿದ್ದಾಗ ಮನುಷ್ಯ ಭಕ್ತಿ – ದೈವಶಕ್ತಿಯ ನಂಬಿಕೆ ಮೂರ್ತ ಸ್ವರೂಪವನ್ನು ನೀಡಿರುವುದು. "ಗುದ್ದು", ಇತಿಹಾಸವನ್ನು ಗಮನಿಸಿದಾಗ ಸತ್ತ ಮನುಷ್ಯನನ್ನು ಹೂಳುವಾಗ ಆಹಾರ, ಆಯುಧ, ವಸ್ತ್ರ ಶವದ ಹತ್ತಿರ ಇಡುವ ಪದ್ಧತಿಯನ್ನು ನಾವು ಕಾಣುತ್ತೇವೆ. ಅದು ಆಚರಣೆ ಮಾತ್ರವಾಗಿ ಉಳಿಯದೆ ಪಿತೃಭಕ್ತಿಯಾಗಿ ರೂಪುತಳದಿದ್ದು ಗಮ್ಯವಾದ ಅಂಶವೇ, ಶವಸಂಸ್ಕಾರದ ಇಂತಹ ಆಚರಣೆಯು ಶಿಲಾಯುಗದ ಕಾಲದಿಂದಲೂ ಕಾಣುತ್ತೇವೆ. ಒಂದು ನೆಲೆಯಲ್ಲಿ ಶವ ಸಂಸ್ಕಾರ ನೆಲವಾದ ಗುದ್ದುಗಳು ಧರ್ಮ ಭಕ್ತಿಗೆ ನೆಲೆಯಾಗಿತು ಮತ್ತೊಂದು ನೆಲೆಯಲ್ಲಿ ಮನುಷ್ಯ ವಿಕಾಸ ಜೀವನ ಅಳೆಯುವ ಸಂಶೋಧಕನ ಸಾಮಾಗ್ರಿಯಾದವು.

ಡಾ ಎಚ್.ಬಿ. ವೆಂಕಟೇಶಮೂರ್ತಿಯವರ 'ಗುದ್ದು' ಮೊದಲ ನೆಲೆಯಲ್ಲಿ ರೂಪಿತವಾಗಿದೆ. ಕಥೆಯ ಬುತ್ತಿಯಲ್ಲಿ ಜಾನಪದ ಬದುಕಿನ ಚಿತ್ರಣ ಮಾತ್ರವಲ್ಲದೆ ಮೂರು ಮುಖ್ಯ ಕೇಂದ್ರಿಯ ತಾಣದಲ್ಲಿ ರೂಪಿತವಾಗಿದೆ. ಪ್ರಥಮದಲ್ಲಿ ಗಂಡನ ಗುದ್ದುವಿನ ಪೂಜೆಗಾಗಿ ಕಾತರಿಸುವ ತಾಯಮ್ಮಳು – ತಾಯಮ್ಮಳ ಅವಿಭಕ್ತ ಕುಟುಂಬ ಅತಂತ್ರಸ್ಥಿತಿ ಹಾಗೂ ಹಳೇಯ ಬದುಕು ರಚನಾತ್ಮಕ ಬದುಕಿನ ಮುಖಾಮುಖಿಯನ್ನು ಕಾಣುತ್ತೇವೆ. ಮೂರನೇಯ ತಲೆಮಾರಿನ ಮೊಮ್ಮಗ ಶ್ರೀನಿವಾಸನು ತನ್ನ ಅಜ್ಜ – ತಾತ, ಭಾವ ಅಭಿಲಾಷೆಗೆ ಗುದ್ದಲಿಂದ – ಗುದ್ದಿಗೆ ಮಾನ್ಯತೆ ನೀಡಿ ನವ ಸಂಪ್ರದಾಯದ ತಲೆಮಾರುಗಳಿಂದ ತಲೆಮಾರುಗಳಿಗೆ ಕ್ರಾಂತಿಯಾಗಿ ಹೇಗೆ ರೂಪು ತಳೆಯುತ್ತದೆ ಎಂದು ಕಥೆಯ ಒಡಲಿನಲ್ಲಿ ಅರ್ಥೈಯಿಸಬಲ್ಲವು. ಶ್ರೀನಿವಾಸನ ಪಾತ್ರವು ಶ್ರಮ – ಬಾವಗಳ ಆಲಿಂಗವೆಂದು ಸಹೃದಯನಿಗೆ ಗೋಚರಿಸುತ್ತದೆ.

ನಮಗೆ ಪದೇ – ಪದೇ ಎದುರಾಗುವುದು ಗ್ರಾಮೀಣ ಬದುಕು ಅದರಲ್ಲಿನ ತಳ ಸಮುದಾಯದ ಬದುಕಿನ ಚಿತ್ರಣ, ದೈಹಿಕ ಹಸಿವು ಮತ್ತು ಸಾಮಾಜಿಕ ಹಸಿವು ಕ್ರಾಂತಿಯ ಹಾದಿಯನ್ನು ತುಳಿಯುವುದು ಶ್ರೀನಿವಾಸನ ಪಾತ್ರದ ಮುಖೇನದೊಂದಿಗೆ 'ಗುದ್ದು' ಎಂಬ ನೆಲದ ಕಲ್ಪನೆಯಲ್ಲಿ ರೂಪಿತವಾಗಿದೆ.

ಅಡುಗೆ ಮನೆಯ ಗೋಡೆಯ ಗೂಡಲ್ಲಿ ಮಾಡಿದ ಮಣ್ಣಿನ ದೀಪ ಅದು ತಾಯಮ್ಮನ ಮಾನಸಿಕ ಧೈರ್ಯದ ಜಗಜ್ಯೋತಿಯಾಗಿದೆ. ಸಾವಿನ ಕರಾಳತೆ ಎಲ್ಲರನ್ನು ಬಾದಿಸುತ್ತದೆ. ಕಥೆಯಲ್ಲಿನ 'ಯಡೆ' ಕಲ್ಪನೆ ಸಾವನ್ನು ಮೀರಿ ನೈಜ್ಯ ಸಂವೇದನೆಯಾಗಿ ರೂಪುಗೊಂಡಿದೆ.

ದೋಣಿರನ ಪಾತ್ರ ಕಥೆಯಲ್ಲಿ ತಮಟೆಯೊಂದಿಗೆ ಸುದ್ದಿ ನೀಡುವವ ಮಾತ್ರವಲ್ಲ ತಮಟೆ ನಾದಕ್ಕೆ ಅವನ ಅಂಗಿಯು ರೂಪಾಯಿ ಅಂಗಡಿಯಾಗುತಿತ್ತು. ಜಾತ್ರೆ, ಹಬ್ಬ ಹರಿದಿನ, ಜಾನಪದ ಕಲಾ ಮೇಳಗಳಲ್ಲಿ ಅವನ ಅಂಗಿಗೆ ಮತ್ತಷ್ಟು ರೂಪಾಯಿ ಪೇರುತಿತ್ತು. ಕಲಾವಿದರ ಶೋಚನೀಯ ಬದುಕನ್ನು ಪ್ರತಿಬಿಂಬಿಸಿದರು ತಳ ಸಮುದಾಯದ ಬದುಕನ್ನು ಓದುಗರ ಕಣ್ಣಿಗೆ ಕಟ್ಟುತ್ತದೆ.

'ಗುದ್ದು' ಸಾವಿನ ಸುತ್ತ ತಿರುಗುವ ಗ್ರಹವಾದ ಕಾರಣ ದೋಣೀರನ ಶವ ಸಂಸ್ಕಾರದಲ್ಲಿ ಬಳಸುವ ಬಿದಿರುಬಟ್ಟೆ, ಚೊಟ್ಟ, ತಮಟೆಸದ್ದು, ಸೋಬಾನೋಸಾದಿ ರಾಗದ ಪ್ರಲಾಪ ಸಂಸ್ಕೃತಿಯನ್ನು ಬಿಂಬಿಸುವುದನ್ನು ಕಾಣುತ್ತೇವೆ. ಆದರೆ ಶಿಷ್ಯರ ಬದುಕಿಗಿಂತ ಪರಿಶಿಷ್ಯರ ಬದುಕನ್ನು ಹೆಚ್ಚು ವಿವರಿಸಿದ್ದಾರೆ ಎಂದು ಸಹೃದಯನಿಗೆ ಗೋಚರಿಸುತ್ತದೆ.

ಸ್ತ್ರೀ ಸಂವೇದನೆ ತಾಯಮ್ಮನ ಪಾತ್ರವೇ ಮುಖ್ಯವಾಗಿ ಬರುತ್ತಾಳೆ. ಉಳಿದ ಸ್ತ್ರೀ ಪಾತ್ರಗಳಾದ ಗೌರಿ, ಸರೋಜಳ ಪಾತ್ರ ಕಥೆಯಲ್ಲಿ ಮುಖ್ಯವಾಗಿಲ್ಲ ಎಂದು ಹೇಳಲಾಗುವುದಿಲ್ಲ. ಆದರೆ ಮುಖ್ಯ ಪಾತ್ರವಾದ ತಾಯವ್ವನ ಪಾತ್ರಕ್ಕೆ ಪೋಷಕ ಪಾತ್ರವಾಗಿ ಬರುತ್ತದೆ. ಕಥೆಯ ಪೂರ್ತಿ ತಾಯವ್ವನ ಪಾತ್ರ ಮಾತ್ರ ಹೆಚ್ಚು ಗಿರಕಿ ಹೊಡೆಯುತ್ತದೆ ಎಂಬ ಅಪಾದನೆಯಾದರೂ ಕಥೆಯ ಎಣೆವುದಕ್ಕೆ ತಾಯವ್ವನ ಪಾತ್ರವೇ ಮುಖ್ಯ ಸಾಮಗ್ರಿಯಾಗಿ ಗೋಚರಿಸಿದೆ.

ತಾಯವ್ವ ಗುದ್ದು ಪೂಜೆಗೆ ಬಂದು ಕಥೆಯ ಸಾರವನ್ನು ಬಿಚ್ಚುವ ಕೀಲಕೈಯಾಗಿದ್ದಾಳೆ. ಸ್ತ್ರೀ ಸದ್ಗುಣ, ತಾಳ್ಮೆ, ತ್ಯಾಗ, ವಿನಯ ವಿದೇಯತೆಗಳೇ ತಾಯವ್ವನ ಪಾತ್ರವು ಅಳೆಯುವ ಪ್ರಮಾಣವಾಗಿದೆ.

"ವರ್ಷಕ್ಕೊಂದು ಗಾದಿ ಅಬ್ದುಲ್ಲೂ ಗುದ್ದ ಪೂಜೆಯ
ಮಾಡ್ಲಿಲ್ವಲ್ಲಾ ಪೂಜೆ ಮಾಡಕ್ಕೆ ಬಿಡ್ಡೆಯಾದೆಗಾಕಿ ತಳ್ಳಿದ್ರಲ್ಲಸ್ವ
ಆಯವಾದೀರು"

ತಾಯವ್ವ ಆಕ್ರೋಶದ ಧನಿಯೋ? ಸಂಸ್ಕೃತಿಯ ಮೌಲಿಕ ಸಂಗತಿಗಳನ್ನು ಪ್ರಶ್ನಿಸಿದ ಧನಿಯೋ? ಸಹೃದಯರಿಗೆ ಅಧ್ಯಾಹಾರವಾಗಿ ಉಳಿಯುತ್ತದೆ. ಗ್ರಾಮ ಜೀವನದ ಅತೀ ಶ್ರೇಷ್ಠ ನಂಬಿಕೆ ನಾಗರೀಕತೆಯ ಕರಾಳ ನೆರಳಿಗೆ ಹೇಗೆ ಕೊಳೆಯಲು ಪ್ರಾರಂಭಿಸುತ್ತದೆ ಎಂದು ಅಚ್ಚಳಿಯದ ಹಾಗೆ ರೂಪಿತವಾಗಿದೆ.

"ಮನೆಯ ಒಡೆಯ ದೋಣೀರನೆಂದು ಕೊಂಡಿದ್ದರು
ಮನೆಯ ಸಾಗಿಸುತ್ತಿದ್ದವಳು ತಾಯವ್ವಳೇ"

ಇದು ದೋಣೀರ – ತಾಯವ್ವನ ದಾಂಪತ್ಯದಲ್ಲಿ ದೋಣೀರನ ಆಂತರಿಕ ಒಪ್ಪಂದವಾದರೂ ಸಂಪ್ರದಾಯ, ಶೀಲ, ಸ್ತ್ರೀ ಪರಂಪರೆ ನೆಲೆಯಲ್ಲಿ ತನ್ನ ಕುಟುಂಬ ದಾಂಪತ್ಯವನ್ನು ಕಟ್ಟಿಕೊಂಡಿರುವ ಬಗೆಯನ್ನು ತೋರಿಸುತ್ತದೆ.

"ಮೊಗಾ ನೀ ನೋದಿ ಒಂದೊಡ್ಡಾಪೀಸರಾಗ್ಬೇಕು"

ತಾಯವ್ವಳು ಮುಂದಿನ ಪೀಳಿಗೆಯಾದ ಶ್ರೀನಿವಾಸನಿಗೆ ನೀಡಿದ ಸ್ವ–ಜಾಗೃತಿ ನುಡಿ ಎಂದೆನಿಸಿದ್ದರು ಸಮಾಜ ಪರಿವರ್ತನೆ ಮುಖ್ಯವಾಗಿ ತಳ ಸಮುದಾಯದ ಪರಿವರ್ತನೆ ಪರಿವರ್ತನೆಗೆ ಅಕ್ಷರ ಕ್ರಾಂತಿ ದಾಳ ಎಂಬಂತೆ ಕಾಣುತ್ತದೆ. ಕಥೆ–ಕಾದಂಬರಿಯಲ್ಲಿ ಕಾಣುವ ಕ್ರಾಂತಿ! ಕ್ರಾಂತಿ! ಎಂದು ಪಠಿಸುವ ಸಂಪ್ರದಾಯ ಮಾದರಿಗಿಂತ ಮೌಲ್ಯಗಳನ್ನು ಪುನರ್ ಸ್ಥಾಪಿಸುವಲ್ಲಿ ತಾಯವ್ವನ ಕಿವಿಮಾತು ನಿರ್ಭೀತಿ ಹೆಜ್ಜೆ ಕುರುವುಗಳಿದೆ.

ತಾಯವ್ವನ ಶವ ಶ್ರೀನಿವಾಸನ ಹೆಗಲ ಮೇಲೆ ಇರುವ ಪ್ರತಿಮೆಯು ಪ್ರಜ್ಞಾ ಜಗತ್ತನ್ನು ಭಾದಿಸುವ ಅತೀಮುಖ್ಯ ಸಂಗತಿಯಾಗಿ ಉಳಿದಿದೆ.

ಗ್ರಾಮಕ್ಕೆ ಪ್ರವೇಶಿಸಿದ ಫ್ಯಾಕ್ಟರಿಯೂ ಶಿಷ್ಠ ಹಾಗೂ ಜಾನಪದ ಬದುಕಿನ ಮಧ್ಯೆ ನೆಲೆಯೂರಲು ಬಂದ ಫ್ಯಾಕ್ಟರಿಯೂ ಕರಾಳ ರೂಪವಾಗಿ ಗ್ರಾಮೀಣ ಬದುಕನ್ನು ಕಾಡುತ್ತದೆ. ಇತ್ಯಾತ್ಮಕ ಹಾಗೂ ನೇತ್ಯಾತ್ಮವಾಗಿ ಎರಡು ಮಗ್ಗಲುಗಳಲ್ಲಿ ಪರಿಣಮಿಸುತ್ತದೆ.

ಜಾತಿ, ವರ್ಣ, ವರ್ಗ, ಲಿಂಗ, ಕೋಮು, ಸಾಮ್ರಾಜ್ಯಶಾಹಿ ಪ್ರಶ್ನೆಗಳನ್ನು ಕೆದಕಿ ನೋಡುವ ಉದ್ದೇಶ ಗೌಣವಾಗಿದೆ. ಹಳ್ಳಿಗೆ ಬಂದ ಡಿ.ಸಿ.ಯು ಫ್ಯಾಕ್ಟರಿ ಆರ್ಡರ್ – ತಾಯವ್ವನ 'ಗುದ್ದು'ವಿನ ಶ್ರದ್ಧೆಯು ಎರಡು ಘಟಕವು ಒಂದು ಬಿಂದುವಿನಲ್ಲಿ ಸಂಧಿಸುವ ಪ್ರಯತ್ನವಾಗಿದೆ. ಆ ಕಾರಣ ಕಥೆಗಾರರು ಫ್ಯಾಕ್ಟರಿಯನ್ನು ಬಿರುಗಾಳಿಯ ಚಂಡಮಾರುತಕ್ಕೆ ಉಪಮೆ ಮಾಡಿದ್ದಾರೆ. ಉಪಮೆಯು ಕಥೆಯ ಅಂದರದಲ್ಲಿ ಸರಿ ಎನಿಸಿದ್ದರು ಯುಗ ಧರ್ಮದ ದೃಷ್ಟಿಯಿಂದ ತಪ್ಪಾಗಿ ಗೋಚರಿಸುತ್ತದೆ.

ಅನಕ್ಷರಸ್ಥರ ವಿಮೋಚನ ಅಸ್ತ್ರ 'ಅಕ್ಷರ' ಅಕ್ಷರ ದಾರಿ ಇಡಿದ ವಿದ್ಯಾವಂತರು ಕೃಷಿಯಿಂದ ದೂರ ಉಳಿದು ನಿರುದ್ಯೋಗಿಗಳಾದ ಕಾರಣ ಫ್ಯಾಕ್ಟರಿಯನ್ನು ಸ್ವಾಗತಿಸಿದರು. ಅಜ್ಜ – ಅಜ್ಜಿ – ಮುತ್ತಜ್ಜನ ಭೂಮಿ ಎಂದು ಪರಿಗಣಿಸಿ ಚಿಂತನೆ ಮತ್ತು ಕ್ರಿಯೆಯನ್ನು ಒಂದೇ ನೆಲೆಯಲ್ಲಿ ನೋಡುವ ಮತ್ತೊಂದು ಸಮುದಾಯ. ಈ ಎರಡು ವರ್ಗದ ಸಾಮಾಜಿಕ ಬದ್ಧತೆಯನ್ನು ಸೈದಾಂತಿಕ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಅನಾವರಣಗೊಂಡಿದೆ.

ಬಂಡವಾಳಶಾಹಿ ಸಮಾಜವೊಂದು ಪರಿಶಿಷ್ಠರ ಕೃಷಿ ಬದುಕಿನಲ್ಲಿ ನಿರ್ಮಾಣವಾದರೆ ಜಮೀನಿನ ಒಡೆಯರಾದ ಸೂರಪ್ಪ – ಬಸವಯ್ಯರಿಗೆ ಅದೇ ಜಮೀನಿನ ಕಾವಲುಗಾರರಾಗುತ್ತಾರೆ ತೋರಿದೆ. ಸಹೃದಯರಿಗೆ ಇದು ಅರಗಿಸಿಕೊಳ್ಳದ ಸಂಗತಿಯಾದರೂ ಮತ್ತೊಂದು ಕಡೆ ಒಂದು ರಾಷ್ಟ್ರೀಯಾ ಉತ್ಪಾದನೆಗೆ ಕೃಷಿಕರ ಕೊಡುಗೆ ಇಳಿಮುಖವಾಗುತ್ತಿರುವುದನ್ನು ಬಿಂಬಿಸಿದೆ.

ಬರಹಕ್ಕಾಗಿ ಬರಹವಾಗದೆ ಸಮಾಜ ಮತ್ತು ಸೃಜನಶೀಲತೆಯ ಆಯ್ಕೆಯ ವಿಚಾರದಲ್ಲಿ ಸಮಾಜವೇ ಮೊದಲ ಆಯ್ಕೆ ಇದು ಕಥೆಯ ಮುಖ್ಯ ನಿಲುವು ಎಂದು ಕಥೆಯ ಉದ್ದಕ್ಕೂ ಗೋಚರಿಸುತ್ತದೆ.

"ದುಡ್ಕುಡ್ತಾರೆ ಅಂತವ ವಲಮನೆಯ ಬುಡಕಾಯ್ತದ

ದುಡ್ಕೊಟ್ರೆ ಅದೇಟ ದಿನ ಇರ್ತದೆ – ಊರ್ನೆ ಬುಡಬೇಕಲ್ಲಪ್ಪಾ"

ನಾಳೆ ಎದುರುಗೊಳ್ಳುವ ಸಮಸ್ಯೆಯನ್ನು ಇಂದು ಅರಗಿಸಿಕೊಂಡು ಕ್ರಿಯಾಶೀಲತೆಯ ಹಾದಿಯನ್ನು ಕಥೆ ಸಾಗಿದರು ಗ್ರಾಮಿಗರು ನಂಬಿದ ಮೌಲ್ಯಗಳ ಶಿಥಿಲತೆಯ ಕುರುಹುಗಳಿಗೆ ನಾಗರಿಕತೆ (ಸ್ವಾತಂತ್ರ) ಬದುಕನ್ನೆ ಹೊಣೆಯಾಗಿಸಿರುವುದು ಕಥೆಯ ವಸ್ತು ವಿನ್ಯಾಸ ದೋಷವೆಂದು ಕಾಣುತ್ತದೆ.

ಫ್ಯಾಕ್ಟರಿ ಆಸೆ ಅದನ್ನು ಪೂರೈಸುವ ಪ್ರಶ್ನೆಯಾಗಿ? ಕಥೆಯ ಸುತ್ತ ಸುತ್ತುತ್ತದೆ. ಬಂಡವಾಳದ ಪಾರಮ್ಯದ ಅವಸ್ಥೆಗಳು ಒಳತೋಟಗಳು ಪ್ರಾರಂಭವಾಗುತ್ತದೆ.

ಹೇಗೆ ಬಂಡವಾಳದವರು ಸಮಾಜದ ಸಂಘಟನೆಯಲ್ಲಿ ಕ್ರಮವಾಗಿ ಬಲಿಷ್ಠವಾಗಿ ಲಾಭಕ್ಕಾಗಿ ದೈಹಿಕ ಬೌದ್ಧಿಕ ಶ್ರಮವನ್ನು ವಿನಿಯೋಗಿಸಿಕೊಳ್ಳುವ ದಾಳವಾಗಿ ಗುಲಾಮಗಿರಿಗೆ ದಾರಿಯಾಗುತ್ತದೆ. ಅದಕ್ಕೆ ಸಾಕ್ಷಿಯಾಗಿ ನಿಲ್ಲುವವರು ಕೃಷಿಕರಾದ ಸೂರಪ್ಪ – ಬಸವಯ್ಯ ಪಾತ್ರಗಳಾಗದೆ ಕಥೆಯ ಮಾದಿರಿಯಾಗಿದ್ದಾರೆ.

ಜನಸಾಮಾನ್ಯರ ಭಾಷೆ ಕಥೆಯ ಜೀವಾಳವಾಗಿದೆ. ಭಾಷೆಯ ಸ್ವರೂಪ ತಳಸಮುದಾಯದ ದೈನಂದಿನ ಭಾಷೆ ಅಭಿವ್ಯಕ್ತಿಯಾಗದೆ ಹೊರತು ಅಲಂಕಾರಿಕ – ಕಾಲ್ಪನಿಕ ನಿರ್ಮಿತ ಪದ ಬಳಕೆಯಾಗಿಲ್ಲ.

"ಯಾವ್ ! ಬೋಳಿಮಗ್ನೇ ನಿಂಗೇಳನು ಬರೀ

ನಮ್ಮರಲ್ಲ ಸುತ್ನಕಳ್ಳರೊ ಊರ್ಬಿಡ್ಬೆಕಂತೆ"

ಸ್ಥಳೀಯ ಭಾಷೆಯ ನೈಜತೆಯನ್ನು ನಿರ್ಭೀತಿಯಿಂದ ಬಳಕೆಯಾಗಿದೆ.

"ಸೂರ್ಯ ಅಗಲೀ ಪಶ್ಚಿಮದ ವಾಲುತ್ತಿದ್ದ

ತನ್ನೊಳಗಿಂದ ಬರುತ್ತಿದ್ದ ಜ್ವಾಲೆಯ ಉಗಿಯನುಂಗಿ"

"ತಾಯಮ್ಮ ಬಾಚುತ್ತಿದ್ದ ಗೌರಿಯ ಜಡೆಯು

ಅಂತಿಮ ರೂಪಕ್ಕೆ ಬಂದಿತ್ತು"

ಸ್ವಾಭಾವೋಕ್ತಿಯಾಗಿ ಕಥೆಯ ನೈಜ್ಯ ಸಂವೇದನೆಯ ಸೊಗಸನ್ನು ಮತ್ತಷ್ಟು ಹೆಚ್ಚಿಸಿದೆ.

ಬಂಡವಾಳ ಶಾಹಿಗಳ ಕುತಂತ್ರವು ದೋಣೀರನ ತಮಟೆಯ ಧನಿಯಲ್ಲಿ ವ್ಯಕ್ತವಾಗಿದೆ. ಆದರೆ ಕಥೆಯು ಎಲ್ಲವನ್ನು ಸುಸೂತ್ರವಾಗಿ ಹೇಳಿದೆ ಏನು ಹೇಳುವುದು ಉಳಿದಿಲ್ಲ ಎಂದು ತೀರ್ಮಾನಕ್ಕೆ ಬರುವುದು ಸಾಧ್ಯವಿಲ್ಲ. ಕಥೆಯ ನಡೆ ದೋಣೀರ – ತಾಯವ್ವ ಹೆಚ್ಚೆಂದರೆ ಶ್ರೀನಿವಾಸ ಪಾತ್ರ ಕೇಂದ್ರಿಕರಿಸಿರುವುದು ಸಹೃದಯರಿಗೆ ವೈವಿಧ್ಯತೆಯ ಕೊರತೆ ಕಾಡುತ್ತದೆ. ಸಮಷ್ಟಿಯ ಪ್ರಗತಿ ಅಭ್ಯುದಯಗಳಿಗೆ ಬುದ್ಧಿ ಸಂಬಂಧ ಜೊತೆ ಬಾವ ಸಂಬಂದ ಅಗತ್ಯವಿರಬೇಕೆಂದು ನಿರ್ಬೀತಿಯ ಅಧ್ಯಾಹಾರವಾಗಿದೆ.

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN : 2277-7881; IMPACT FACTOR – 4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# A STUDY ON CUSTOMER'S BRAND PREFERENCE FOR HOUSEHOLD APPLIANCES IN THIRUVANNAMALAI TOWN

**P.Sakthivel**
Assistant Professor
PG&Research Department of Commerce
Shanmuga Industries Arts and Science College
Thiruvannamalai, Tamil Nadu

## Abstract

Today brands function as valuable marks of trust, superior quality, positive equity association and differentiating values. Given their increasing importance in a mixed-up marketplace, it is not surprising that brands are strongly managed and controlled by firms. Brands that consumers generally buy from the same manufacturer repeatedly over time rather than buying from multiple suppliers within the category. It also refers to the degree to which a consumer consistently purchases the same brand within a product class. Commitment influences the buyer's choice of seller and trust is a key driver in this process. Indeed, commitment and trust are critical to any discussion of business relationships because they encourage exchange partners to work are preserving the relationship and achieve mutual gains.

## INTRODUCTION

According to America association, a brand is a name, term, sing, symbol, or design or a combination of them, intended to identify the goods and services of one seller or a group of seller and differentiate them from those of competitors. Today brands function as valuable marks of trust, superior quality, positive equity association and differentiating values. Given their increasing importance in a mixed-up marketplace, it is not surprising that brands are strongly managed and

controlled by firms. Brands have been building customer loyalty, Competitive advantage and positive benefit perceptions for their corporate owners , coke, IBM, BMW, TATA, L&G, P&G, and MRF have characterized the strength of a well-positioned brand marketed to a mass consumer audience through traditional medias.

Corporate owners brands strategy and tactics are typically based on an understanding of how consumer brand choice behavior is influenced by marketing factors, such as quality, price, innovation, creativity, design, package, and advertisements, ect..,. This study reveals that advertisements has strong influenced on customer' brands choice and the role of celebrity in the advertisements is the advertisements is the high to influence the customers.

**Brand**

Brands that consumers generally buy from the same manufacturer repeatedly over time rather than buying from multiple suppliers within the category. It also refers to the degree to which a consumer consistently purchases the same brand within a product class.

Brand Loyalty is the consumer's conscious or unconscious decision, expressed through intention or behavior, repurchase a brand continually. It occurs because the consumer perceives that the brand offer the right product features, image, or level of quality at the right price. Consumer behavior is habitual because habits are safe and familiar. In order to create band loyalty, advertisers must break consumer habits, help them acquire new habits, and reinforce those habits by reminding consumer of the value of their purchase and encourage them to continue purchasing those products in the future. Understanding the key constructs of trust, commitment and attitudinal brand loyalty and their respective antecedents, together with the linkages between these variables are critical if improvement in

relationships in a business-to-business setting is to occur. Trust and commitment are considered to be central constructs of relationship marketing. Commitment influences the buyer's choice of seller and trust is a key driver in this process. Indeed, commitment and trust are critical to any discussion of business relationships because they encourage exchange partners to work are preserving the relationship and achieve mutual gains. It is claimed that commitment and trust will produce efficiency, productivity and effectiveness, all of which are essential for any long-term project. Once a relationship is established, a high level of commitment and trust in the sale representative may impact brand loyalty.

## BRAND PREFERENCE

The battle for a share of the consumer's wallet and cut throat competition for every bit of market space has resulted in search of powerful weapon that delivers sustainable competitive differentiation. In the beginning itself it is of great relevance to quote Philip Kotler, marketing guru about his perception on brands, "Branding is expansive and time consuming and it can make a product. "But even then, today, branding is such a strong force that hardly anything goes unbranded. No one had thought that commodities like "Atta" & "Rice" would branded. Today, one does not go to the shop and ask for just Salt but will ask for Tata Salt or Captain Cook Salt or Annapurna Salt. These brands have become part of our daily life. Developing of an effective brand allows the organization to create a distinctive presence in the market and compete more effectively by leveraging its organizational strengths. In the current competitive market, brands are identified as an intangible asset that can be revenue generating in the long run.

Distributors and retailers want branded products because brands make the product easier to handle, hold production to certain quality standards because it gives them an assurance of quality,

differentiate from competitive products and help him in efficient shopping. That is why, Philip Kotler has said, "Developing a successful brand creates customer loyalty through the provision of added value, for which the customer is prepared to pay premium price, and which the competition find difficult to copy

## SCOPE OF THE STUDY

- This Report will help to understand the consumer behavior towards purchasing a new Television, mixer Grinder, Grinder, Washing Machine, Refrigerator.
- It also opens the various facto rwhich can affect the purchase decision.
- This Report provides a frame of mind of people, what are the exceptions of consumer and up to how much level these expectations met.
- This Report will be helpful for Retailers And Companies so that they can understand the consumer behavior and can satisfy the consumer on more better manner.
- To know whether they recommend to other or not

## OBJECTIVES OF STUDY

- To know the brand preference of the customers for the selected brands in Thiruvannamalai town
- To identify the sources of awareness
- To study the factors which are influencing brand preference for different brands

## LIMITATIONS OF THE STUDY

- Chances of the respondents' bias are involved in the research. As the research is restricted to Thiruvannamalai town
- The results are not applicable to other parts of the District or state or country
- As the survey is conducted only among the people of Thiruvannamalai town, the result may vary elsewhere.
- As the time available for conducting the project is limited the sample size does not covers the whole population.

- As some of the respondents are not ready to give the information required for the project questionnaire the fact to the actual result may possibly vary from what has been produced in my report

**Table 1**

**Classification of respondents based on factors induced you to select a particular brand**

| Induced factors | No of respondents | Percentage |
|---|---|---|
| Popularity | 11 | 11% |
| Brand name | 20 | 20% |
| Brand image | 29 | 29% |
| Current trends | 21 | 21% |
| Availability | 13 | 13% |
| Others | 6 | 6% |
| Total | 100 | 100% |

*Sources: primary data

` The table 1 indicates that 29% of the respondents induced to select products on the basis of brand image, 21% of the respondents induced to select products on current trends, 20% of the respondents induced to select products on brand name, 13% of the respondents induced to select products on availability, 11% of the respondents induced to select products on popularity, & 6% of the respondents are others.

**Table 2**

**Classification of respondents based on factors made you aware about the brand**

| Through awarded | No of respondents | Percentage |
|---|---|---|
| Television | 46 | 46% |
| Radio | 1 | 1% |
| Friends & relatives | 18 | 18% |
| Prints | 7 | 7% |
| Just by looking around | 8 | 8% |
| While shopping | 14 | 14% |
| Others | 6 | 6% |
| Total | 100 | 100% |

*Sources: primary data

The table 2 indicates that 46% of the respondents to aware the product through television, 18% of the respondents to aware the product through friends & relatives, 14% of the respondents to aware the product through while shopping, 8% of the respondents to aware the product through just by looking around, 7% of the respondents to aware the product through prints, 6% of the respondents to aware the product through others,1% of the respondents are radio.

**Table 3**
**Classification of respondents based on the attributes of advertisements influence You to purchase.**

| Attributes | No of respondents | Percentage |
|---|---|---|
| Celebrity | 30 | 30% |
| Slogan/songs | 10 | 10% |
| Themes | 7 | 7% |
| Sales offer | 20 | 20% |
| Creativity | 3 | 3% |
| Appeal | 2 | 2% |
| Not influenced | 28 | 28% |
| Total | 100 | 100% |

*Sources: primary data

The table 3 indicates that 30% of the respondents liked celebrity is most important attributes of advertisements to purchase the product, 28% of the respondents disliked the advertisement, and it's not influenced to them, 20% of the respondents liked sales offer is most important attributes of advertisements to purchase the product, 10% of the respondents liked slogans/songs is most important attributes of advertisements to purchase the product, 7% of the respondents liked themes is most important attributes of advertisements to purchase the product, 3% of the respondents are influenced creativity, & 2% of the respondents are influence appeal to purchase to brand.

## FINDINGS

From the study 29% of the respondents induced to select products on the basis of brand image,

- From the study 46% of the respondents to aware the product through television,
- From the study 30% of the respondents liked celebrity is most important attributes of advertisements to purchase the product.

## CONCLUSION

A consumer prefers a particular brand based on what benefits that brand can offer to him/her. Because of such consumer preferences, the brands can charge a higher price and command more loyalty. In this study, it was observed that in forming the tendency of customer to prefer a particular brand, the marketing variables like Advertisement, Quality of the product, Brand name and Brand image plays an essential role. So a marketer must understand how the customer made his purchase decision towards the brand. Hence, information provided from this study will assist those companies already existing in or planning to enter the market, in selling and increasing their market share.

## References

1. Elizabeth Wolgast .M ,Journal of Marketing, Oct 1958,Pp (152-158).
2. Daniel Starch, Journal of Marketing Research, Vol:9 ,Nov1958, Pp (316-319).
3. Kapoor, Monthly commentary on Indian Economic Conditions, Vol:I, Issue II, June 1960.
4. Frank Bass, Management Science, Vol:15,Issue:5,Jan 1969,Pp(215-227).

5. Joseph W.Newman and Richard Staelin, Journal of Marketing, Vol:IX, Aug 1972,Pp(249-257).
6. Subhas Mehta, The Economic Times (Bombay) July 1973,Pp(4).
7. Venkateshwarlu,Indian Journal of Marketing, Vol:34,Issue:3,March 2004, Pp(14-18).
8. Ravichandran and Narayanarajas,Indian Journal of Marketing, Vol:34,Issue:4,April2004.
9. Consumer Electronic and Television Manufacturers Association (CETMA) "Indian Industry"Economic Times,June 20th 2004.
10. Hariprakash, Business Today August 2004.
11. Ashutosh Rana, Consumer Behaviour Marketing Mastermind,Nov 2004.
12. Venkatrama Raju.D and Saravanan.S,Indian Journal of Marketing, Vol:35, Issue:3,March 2005.
13. J.D. Power www.builderonline.comFeb2006.
14. Suné Donoghue and Helena M de Klerk,Indian Journal of Marketing, Vol:34, ISSN 0378-5254 Nov 2006,Pp(41-55) .

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN : 2277-7881; IMPACT FACTOR – 4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# THE RELEVANCE OF FIVE PRECEPTS (Pañca-Sīla) OF BUDDHIST ETHICS IN CONTEMPORARY SOCIETY

**Phan Ngoc Day (Ven. Thich Giac Nhan)**
Research Scholar
Gautam Buddha University
Noida

## Introduction

Our discussion of ethical advantage here concerns mainly with the relevance of the five ethical principles to contemporary world, because the first four precepts of the *pañca-sīla* constitute the heart and underlying of all formulation of Buddhist ethical precepts.[1] While the five ethical precepts are to be observed by all Buddhists, both the monastic and the householder of life, the lay devotee practices the additional three precepts of the eight precepts (aṭṭha-sīla) on the observance day (upasatha), the five additional precepts are observed by the monastic novitiates until he or she is ordained full as a monk/ nun, and the ten good paths of actions repeat the first four the Pañca-sīla, plus other three modes of speech and three wholesome root (*kusala-mūlā*).

In adition, the first four precepts of pañca-sīla are called the four defeat offences (*pārājika*) in the Bhikkhu Pātimokkha, and the first four pārājika of the Bhikkhunī Pātimokkha, though the four pārājika in these Pātimokkhas differ from those of pañca-sīla in that the order of the first and the third precepts are inverted, and third precepts 'abstention from sexual misconduct' misconduct (*kāmesu micchācārā*) of the pañca-sīla is substituted with celibacy (*brahmacariyā*). The reason of that substitution of ethical principles (*pātimokkha*) is that

[1] Dīgha. III. 181.

this ethical precept constitutes the essence of the holy life of the monastic members (*sañgha*).

One who obverses these ethical principles are believed to lead a life of happiness and confidence without any fear from any quarters, enjoy longevity, and hold an honored position in society.[2] At the here and the hereafter, due to ethical living he earns five benefits; well-earned wealth, good reputation, confidence, a peaceful death with alertness and mindfulness, and rebirth in a good family or in a state of happiness or heavenly realm. Observing ethical precepts generates merit and happiness in the here and the hereafter. And along with taking refuge in the Triple Gem, life of moral conduct constitute the 'flood of merit' resulting in happiness in the present and rebirth in heavens in the next life.[3]

As know that, whatever Buddha taught was value of ethics and moral of life in path toward happiness and peace inside one' own and society. Like Misra identified:

> What Buddha taught was a way, (magga/mārga). Mārga or way is a figure of speech implies going from one place to the other. It stars from Saṃsāra, the realm of suffering, and terminates in Nirvāṇa (Nibbāna), eradication of suffering (dukkha) and attainment of perfect peace and bliss. This goal is attainable through gradual progress along the path prescribed by Buddha, in due course.[4]

The Buddhist theory of dependent origination (paṭicca samuppāda) teachers us that when every individual cannot be separated from society, his nature good or bad is definitely under social

---

[2] J. IV. 50.
[3] A. II. 66-67.
[4] G.S.P. Misra, *Development of Buddhist Ethics* (New Delhi: Munshiram Manoharlal Publishers Pvt. Ltd, 1995), p. 67.

influences. If every individual leads a file of sound ethical behavior, the entire society would logically be progressive in a beneficial manner. In other words, ethically wholesome conduct would lead a man of virtues to a healthy and purposeful life, and consequently, contributing to building an ethically sound society. The five ethical precepts serve as the foundation on which one would be able to attain the moral and intellectual perfection, and social up liftmen.

**The Problems of Modern Society.**

In the modern Society today, with greatest development of society in the period of Globalization, there are many problems had take out for social human kind. Such as War, terrorization, pollute environment, weather Global, so on. Because. 'We live in a world where entire populations and blocs of nations look for moral guidance to different religious and cultural traditions. And while these different moral traditions all contain elements that allow and encourage cooperation across religious, cultural and national lines, they also may mandate conflicting norms and incompatible social arrangements that render cooperation difficult. Conflicts can arise between the adherents of different traditions, not because people suspend their ethical sensitivities when dealing with outsiders, but precisely because of their ethical sensitivities. Indeed, conflicts rooted in rival perceptions of good and evil may be more destructive and intractable than conflict rooted in conflicting material interests. Such ethically based conflicts can arise over such issues as the status of women, religious tolerance, forms of punishment, models of governance, and the use of public space.'[5]

**This is problems facing of society today:**

[5] William Sullivan, *The Globalization of Ethics Religious and Secular Perspectives* (Cambridge: Cambridge University press, 2007), p. 1-2.

1) Overpopulation too many people; no food, water, housing, etc, with development naturally of social then population, become more and more. As the countries are developing economically and society, then population is increasing day by day. So, they lack food, pure water and house, etc. This has happened in the Africa countries. About cause of overpopulation by many various reasons which belong to social due to do not have birth control.

2) Pollution - environmental damage is a problem of the whole world at the present time. With the problems of pollutions such as; pollution atmosphere, pollution of rubbish, pollution from air out…

3) Global Warming - chlorofluorocarbons, with development of industry, many factories are they eliminates carbonic (CO2) and pollutes the water. Air eliminate from factories industry are the cause of Global Warming.

4) War - people killing each other for bad reasons

5) Stupidity - general population becoming less concerned with education

6) Obesity/Disease - people dying from poor decisions or bad luck

7) Habitat Destruction - people destroy nature to make room for more people

8) Species Extinction - above practices causing diversity of life to diminish

9) Religion - People believe many conflicting ideas.

Today, as societies have become more complex, with ever greater volumes of transactions, individuals have become increasingly practiced in negotiating these environments. Accompanying this newly found competence has been an increased confidence in individual

determinism and agency, with consequences for how one balances the interest of the individual with the collective interest of large groups.[6]

**The Relevance of Ethical precepts to Contemporary Society.**

According to Buddhism, the path to freedom is a gradual process of training, gradual working out and gradual practice. The gradual process of freedom is compared with different stages of a lotus in the muddy water. Firstly, the lotus has to grow in the muddy water, then rises above the mud, and finally, rises above the water and remains unsmeared by the water. This gradualness consists of cultivation of ethical virtues (*sīla*), meditation (*samādhi*) and wisdom (*paññā*). Ethical life (*sīla*) will lead one to mental concerntration (*samādhi*) and then to wisdom (*paññā*).[7]

Sīla is restraining mind, body and speech. Samādhi is to develop mental culture. Paññā is to see things as they really are and then behave wisely without attachments. Sīla, samādhi and paññā are interdependent. When higher ethical virtue (*adhisīla*) are reached, the attainment of higher mental concentration (*adhicitta)* follows, which in turn leads to the development of higher knowledge. With these attainments, a virtuous person attains emancipation. As complementary to each other, the moral development and perfection of the individual entails social uplift, peace, harmony, concord and happiness. This is relationship in the Middle way is the Eightfold path *(aṭṭhaṅgika magga)* which includes all the aspects of the seeker's training, physical, mental and intellectual (*Sīla, samādhi and paññā*).[8]

Buddhist Sīla as ethics consists of two aspects, the negative aspect of abandoning all evil deeds and thought (pāpassa akaraṇa) and

---

[6] Ibid., p. 91.

[7] Dhp. 282.

[8] Nalinaksha Dutt, *Early Monastic Buddhism* (Calcutta: Calcutta Oriental Book Agency, 1960), p. 200.

the positive one of cultivating wholesome forces. The ethical principles against killing, stealing and sexual misconduct are seen as training one's bodily actions, while abstention from falsehood, slander, abusive speech and idle talk are to train verbal action. The abstention from using intoxicants and sloth-produced drugs is to safeguard the mental faculty from degenerating through bodily or verbally unwholesome deeds. Although being framed in negative structure such as abstention from killing, stealing, lying, etc., Buddhist ethics as *sīla* has nothing to do with God's decrees like commandments of other religions. Based on personal voluntary grounds, Buddhist *sīla* is ethical norms expected of every member of society, and therefore has great psycho-ethical and social values. The five ethical principles laid down for laymen are aimed at bringing about purity of body, speech and mind of the precept keeper in relation with others.

As regards positive aspect of sīla, the five ethical principles are see ethically universal valid. Buddhist five ethical principles are aimed at bringing about peace, harmony, brotherhood and mutual respect for individual communities and nations each together. In every period, the Buddhist ethics always applied appropriately in every communities and every country on the signification foundation of pañca sīla (five-precepts);

**(1). Advantage of Abstention from killing**

*"I undertake to observe the ethical principle to abstain from life taking (pāṇātipātā veramaṇī sikkhāpadaṁ samādiyāmi)".*

The first ethical principle against killing is in fact an ethical norm to respect for life not only of humans but also on other sentient beings including animals. Botanical species and environment on the one hand, and to show compassion for all beings on the other. This precept refers to the Ahiṁsā doctrine which has far-reaching implications. In the spirit of first precept (Pāṇātipātā veramaṇī) 'I

refrain from injury to living things'. It isn't a form of believe religious that is moral man in the life society. With spiritual of amity (mettā) and compassion (karuṇā) non-killing not only with people but also to all things from smallest creatures as mosquitoes, insects to biggest creatures as animals, even deal with grass, tree, in general all beings intention and no-intention. When we practice abstention of killing by compassion then we are not harm to environment natural and living creatures. As G.S.P. Misra said:

> As an extension, it includes within it such virtues as amity (mettā) and compassion (karuṇā/anukampā). It emanates from the belief in the oneness of all forms of life and refers not only to non-killing but to all forms of cruelly, harm and oppression.[9]

In the contemporary social, when people acted to hurt to environment made out crisis global about climate change. So, in anywhen practical precept non-killing that protect living things will built a society harmony and non-detrimental.

Social conflicts racial, ideological, ethnic and even religious and terrorism are real threats in many parts of the world. Arms industry such as manufacture of arms, chemical and biological weapons, and nuclear weapons are designed to kill humans and other beings, in the name of nation and international defenses. Arms race among nations will cause incalculable devastation to humanity. National and international terrorism, murder and hijacking crimes are seen today as continuing facts. Senseless killing of hundreds of human lives is constant occurrence on many parts of this planet. Undeclared war is beings waged among world leading nations, just for capturing world market and controlling world economy and establishing neo-colonialism. The free use of chemical fertilizers has caused injurious to

[9] G.S.P. Misra, *Development of Buddhist Ethics* (New Delhi: Munshiram Manoharlal Publishers Pvt. Ltd, 1995), p. 89-90.

earth and health of all beings. These dehumanized activities are the result of not observing this ethical precept against killing. Unless we all strive for putting this disastrous trend to an end by developing moral activities, human life and life of other being are not at peace.

It would follow then that if every citizen in the world observes this ethical principle, there would be no killing, cruelty and destruction of life. Animal sacrifices on the later of Gods for the wrong belief that it could bring about personal, gain security, health and wealth, would be banned permanently. If the world leaders observe this precept, it is surely that a world war cannot be erupted, life disaster will not happen, there would be more peace negotiations substituting wars, arms racing will be put to an end, and militarism will be no longer needed. Life on earth is peaceful in international level. There would be respect for every nation's independence and territorial integrity. There would be also no aggression and interference in the internal affairs of other countries.

**(2). Advantage of abstention from stealing**

"*I undertake to observe the ethical principle to abstain from what is not given (adinnādānā veramaṇī sikkhāpadaṁ samādiyāmi).*"

With precept second *Adinnadānā veramaṇī*; 'I refrain from taking that which is not given'. This is desire what one's property that we lust possessive. Thus, we see that to abandon stealing then people must practice to cultivate 'no-greed', because of stealing, is desire which craving, desire was derived from root of greed. In today society, aggression or invasion is also an act of property private, which it is agree of owner. Possession is a stealing; it is cause of war and no peace in the world.

Theft, bribery, smuggling, blackmail, hijacking, labor exploitation and various forms of misappropriation, nowadays, reign supreme in many part of the world, even in developed countries.

Making fake notes and currencies, deception and cheating in business and manufacture of poor quality products sold with high price are other forms of stealing. The second ethical principle against stealing is thus seen as important norm to protect property of others, on the one hand, and to encourage one to lead a life of right livelihood (sammā-ājīva) on the other. Thus, securing life alone is not enough, unless one's private property is safeguarded.

In addition, this ethical principle would also encourage personal effort and diligence in earning a living. Right effort (*sammā-vāyāma*) thus follows accordingly. Looking at social level, this ethical precept is seen also to bring about social justice that makes "*all beings think of welfare for others*" (*sabbe pāne bhūta hitānukampi viharati*). Any kinds of wasting the human and earth resources should be prevented. In the market, instead of destroying surplus food for controlling the market prices, one is encouraged to distribute it to the poor and needy in order to help fellow beings in difficulties or starvation. Another positive aspect of this precept is that one is advised to lead a life of simplicity and contentment, provided that daily basic needs are met, rather than looking after sensual satisfaction, which leads to greed and craving.

According to H. Saddhatissa and quoting from Udānavarga (Dharmapada; skt), he for that, the second precept may be considered also as the reverse of dāna, or liberal giving, the first of the Ten Perfections (dasapāramitā).[10] Today, social called generosity (dāna) of charity foundation help for difficult general of society as medicine, clean-water, food, etc,. like a form of abstention of stealing and practice abandon greed.

### (3). Advantage of Abstention from Sexual Misconduct

[10] Hammalawa Saddhatissa, *Buddhist Ethics* (Boston: Wisdom Publication press, 1997), p. 71.

*"I undertake to observe the ethical principle to abstain from sexual misconduct (Kāmesumicchācārāveramaṇī sikkhāpadaṁ samādiyāmi)".*

The third ethical principle against sexual misconduct is to safeguard joy and happiness of married life on the one hand, and to ensure one a healthy and happy life on the other. According to Buddhism, was embodied the high watermark of man's attachment with the world and sensual desires, and his incapacity to see the transitory nature of bodily existence in which lies the essence of Ignorance.[11]

This precept is not only a prohibition like strictly law of national, that it is a value about moral social and refers to many problems difficult and evils immorality. Not only in the at that time of the Lord Buddha but also in today society, practically in many effect wrong of sexual misconduct made not welfare by evils. From sexual misconduct will load to other affected to person and society as killing, stealing, rape etc,. when desire not satisfaction. While satisfaction but in misconduct also bring bad effect.

In modern society, this precept is of paramount importance when free sex has become a lifestyle, and laws in most countries protect sex industry. Premarital and extramarital sex is seen developing alarmingly, which lead to unwanted pregnancies and abortions. Homosexuality and lesbianism are gaining social acceptance. Sexual activities without restraints and proper protection have brought dreaded disease like AIDS, and other transmitted diseases, rape, incest, sexual abuse of children and sexual harassment, are of great concern for all governments. Adultery or seeking for other newer forms of pleasures from others' partner or from those under protection of their parents, families and laws has broken homes of many people. Divorce

[11] G.S.P. Misra, op. cit., p. 90.

increases, and children as the victims of those slit couples lead an emotionally unbalanced life and even become drug addicts. These are seen as the result of sexual misconduct and indulgence in sexuality without restraint.

### (4). Advantage of Abstention from Falsehood

*"I undertake to observe the ethical principle to abstain from false speech (musāvādā veramaṇī sikkhāpadaṁ samādiyāmi)".*

As taught of the Buddha refers in this precept is; to adherence to truth in speech. Lying implies a deliberate motive of distorting the truth. False speaking and slandering should be strenuously avoided.[12]

All kinds of vocal expressions, writing, reporting or making any statement, which departs from facts, are considered as falsehood. Intentional act of telling an untruth for personal gain is seen as a serious offence, for it harms others. Baseless accusing other person, party, or country, on personal or mass communication, is the most serious kind of falsehood, which results in distrust and mutual suspicion in all kinds of social relationship, especially in internationally diplomatic relations. Thus, the ethical principle against falsehood as taught by the Buddha is a remedy for building friendship, co-operation and co-existence among individuals, communities and nations, in harmony and peace.

In the modern social of global, when every peoples have to discus together to settlement the problems complex of society, national, and international in region of economic, political, defense then need have truth in speech to made trust each other.

[12] Ibid.,p. 91.

### (5). Advantage of Abstention from intoxicants

*"I undertake to observe the ethical principle to abstain from life taking (surāmerayamajjapamādaṭṭhānā veramaṇī sikkhāpadaṁ samādiyāmi)".*

Indulgence in intoxicants and drugs is seen as leading to economic ruin, and resulting in bad health and weakening wisdom.[13] Daily alcoholic consumption as proved by scientists has a close association with the risk of the colon and rectum cancers. While pregnant women with moderate consumption of alcohol can give birth to under-weight child, and even his brain cells and vital organs may be damaged. Alcoholism and drug abuse are also the root causes of many social problems such as quarrels, fights, domestic violence, traffic accidents, and even committing crimes. Thus, the ethical principle against consuming intoxicants and unhealthy drugs is to ensure one's physical health and mental stability on the one hand, and to help man prevent social evils that may arise out of influence of intoxicants, on the other.

### Conclusion:

Thus, as much as in relation to other and society, these five ethical principles have many positive values also. When one is trained in respecting life of sentient beings, one is advised to cultivate non-violent attitude and compassionate nature. Thus, peace prevails on earth and longevity is ensured. When one is trained in not taking what is not given, one abandons greedy attitude and is content with fewness or with what one has out of right effort. One is advised to be generous in sharing (dāna) with others. When one is sexually satisfied with his/ her life-partner, one builds not only stable relationship with one's spouse, but also ensure the happiness of family of others. Such a couple

[13] A. III. 205.

would definitely become dutiful parents to provide a joyful environment in the family. In observing the ethical principle against false, slander, abusive speech and idle talk, one is seen trustworthy, dependable, untied, kind, gentle and helpful in society. Abstention from intoxicants is to ensure one's mindfulness, memory, capacity, dutifulness, sanity and wisdom.

In addition, same Buddhism, in every religion, most of all have to the principles for path lead to Happiness. The first demand that is make for persons of faith is observance of moral precepts (sīla), that is, restraint in physical actions (thought) and mental (body). Like a cultivation one's own. According to the Buddhists. Sīla consists of sammā vācā, sammā kammanta, and sammā ājīva. It is also division three of eight in the path leading to Nibbāna. in the Vibhaṅga and Majjhima Nikāya[14] there are detieled as follows:

Sammā-vācā: refraining from speaking falsehood, malicious words, harsh and frivolous talk;

Sammā–kammanta: refraining from killing, stealing, and misconduct;

Sammā-ājīva: refraining from earning livehood by improper means, arts and crafts of laymen.[15]

With this division, we see that, there is a particularly from short to high, from outside to subtle inside of intention. When we practice with energy of mindful to see clearly acts in awakening that is not been mixes of modern society influence.

Five ethical principles are element foundation of personal and social ethics, the guiding principle for the wellbeing and happiness of any society, as well as, for spiritual advancement of individuals and

[14] Majjhima, III. 251.
[15] Dīgha, I. 67-69.

society, which every ruler needs to apply in governance of his subjects with right righteousness and justice.

**References:**

Dutt, Nalinaksha. 1960. *Early Monastic Buddhism*. Calcutta: Calcutta Oriental Book Agency.

Harvey, Peter. 2002. *An Introduction to Buddhist Ethics*. New York: Cambridge

Hutchings, Kimberly. 2010. Global Ethics An Introduction. Cambridge: Polity Press.

Jatava, D.R. 2007. *Buddhism in Modern World*. Jaipur: ABD Publishers press.

Keown, Damien. 2005. *Buddhist Ethics: A Very Short Introduction*. New York: Oxford University Press.

Misra. G.S.P. 1995. *Development of Buddhist Ethics*. New Delhi: Munshiram Manoharlal Publishers Pvt. Ltd,.

Saddhatissa, Hammalawa. 1997. *Buddhist Ethics*. Boston: Wisdom Publication press.

University press.

Singer, Petter. 2001. *Practice Ethics*. New York: Cambridge University Press.

Silva, Padmasiri De. 2002. *Buddhism, Ethics and Society : The Conflicts and Dilemmas of Our Time*. Victoria: Monash University Press.

Sullivan, William. 2007. *The Globalization of Ethics Religious and Secular Perspectives*. Cambridge: Cambridge University press.

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN : 2277-7881; IMPACT FACTOR – 4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# AN ANALYTICAL EXPLORATION OF THE RECIPROCITY BETWEEN THE CONCEPTS OF DHARMA AND BHAKTIWITH SPECIAL REFERENCE TO THE PHILOSOPHY OF VALLABHĀCĀRYA

**Poulosiju K. F.**
Ph. D research Scholar
Department of Philosophy
University of Madras
Chepauk, Chennai

## Abstract

The concepts namely, dharma and bhakti are as old as Vedic literature. Even though these concepts are very popular,it is interesting to observe, they are not defined or dogmatised in the tradition. Therefore, different philosophical religious traditions of India have adopted these concepts according to their specifications and needs. Close analyses of these concepts reveals they are concepts are interrelated. This paper analyses the reciprocity existing in between these concepts with special reference to the philosophical tradition of Vallabhācārya, a Vaiṣṇavite thinker of 16th century. The claim of this paper is that the concept of bhakti is the best means to actualise dharma and it can rightly be called the source and summit of dharma according to Vallabhācārya.

## Introduction

This paper is an attempt to reappraise the classical Indian concept dharmain the wide spectrum of bhakti with a particular reference to the philosophy of Vallabhācārya. The claim of the paper is that 'bhakti is the best means to actualise dharma and it can rightly be called the source and summit of dharma according to Vallabhācārya'. An attempt is made to substantiate the claim and to see the scope and relevance of such an understanding. The methodology is analytical where both the concepts are analysed within its traditional and interpretative scope.

## Dharma

The concept of dharma is as old as Vedic literature. It is considered as first of the four *puruṣārthas*.The word dharma is an etymological derivation of the Sanskrit root *dhṛ*, which means to hold, maintain, to keep, established, firm, etc. Since the meaning of the word is multifaceted scholars differ in interpreting it like 'right way of living', 'path of righteousness' etc. We find that many of the ancient literatures like Ṛgveda, *Mahānārayaṇa* Upanishad, *Taittiriya*Upanishad, *Chāndogya*Upanishad, *Bṛhadāraṇyaka*Upanishad, Mahabharata, Ramayana,and early Buddhist texts etc. speak about the concept of dharma.

It is traditionally accepted that the clear understanding of any notion depends heavily on its definition. But in the case of dharmaeven though ancient literature speaks a lot of the same,it does not define it. Ancient writer *Kaṇāda*has made an attempt to define dharma on the basis of causality that dharma is something which causes prosperity and liberation and that which is authorised by scriptures. The last part of thisapparent definition leaves room for further interpretative nuances since the final word on dharma is set apart to the authorised scriptures. It is clear from here that no human authority can ever make a universalised categorical definition of the concept of dharma but it should be stated by the authoritative canon of interpretation. It means that the word and its nuances fluctuate with different persons, cultures and contexts. Thus, the same concept varies in its degree in various religious disciplines like Buddhism, Jainism, and Hinduism etc. In Buddhism dharma or *dhamma* is the teachings of Buddha. The Oxford Dictionary of World Religions defines dharma in Hinduism as a concept, referring to the order and custom which make life and universe possible, and thus to the behaviours appropriate to the maintenance of that order.

Absence of a fixed meaning or a dogmatic definition in the case of dharma expands its interpretative scope. It does not mean that any licentious definition will suit the concept. On the contrary it is defined in each discipline with its own specifications. To be precise, dharma can refer to any knowledge, teachings, and practices that may elevate one from a lower level of consciousness to a higher state of consciousness.

With the above said details on the concept of dharma the paper proceeds to analyse the notion of bhakti in the discipline and philosophy of Vallabhācārya where it is pedestalised on the superior position.

**Bhakti**

Bhakti is a Sanskrit word which is translated by the word devotion into English that in fact does not convey the full meaning of the term. Etymologically the word derives from the Sanskrit root *bhaj* which has variety of meanings as: to enjoy, to favour, to honour, to worship, to revere, to attached to and to be loyal etc. The word can take different connotations according to context. Thus, bhakti is a generic term meaning loving devotion or attachment. It signifies a feeling and a sentiment, i.e. an emotive state of mind. Its meaning can get particularised only when the entity towards which it is directed is specified. Hence it is clear that bhakti does not mean religious expressions all alone; even though religious expressions have much to do in it.

*Bhakti Mārga* is one of the three ways for the liberation of human being suggested by the Philosophical Tradition of India, namely; *JñānaMārga, Karma Mārga*and *Bhakti Mārga*. The exponents of each *mārga* claim that the one they uphold is the final way to attain liberation. Thus, those who follow *Bhakti Mārga* are of the opinion that bhakti is the final means and *Jñāna*and *Karma* only support and

stimulate the movement towards bhakti. And Vallabhācārya belongs to this group.

The traditional schools of *BhaktiMārga* suggest nine steps to practiceitas follows:

1. *Śravaṇa*: hearing or listening to the accounts of the life of Śri Krishna, or listening the praising of the qualities of Śri Krishna, or simply listening to the names of Śri Krishna.
2. *Kīrtana*: singing aloud the names and virtues and the events in the *līlas* of Śri Krishna. This is to fill the minds of *bhaktas* with the emotional experience of the various*līlas*. The subject of *kīrtana* is never sorrowful.
3. *Smaraṇa* or *smṛti*: remembrance. Every *bhakta* is supposed remember his God continually throughout his life especially at the time of his death.
4. *Pāda-sevana*: the act of honouring or worshiping the feet. This is the reverent service that a *bhakta* offers to the *svarūpa*. This shows the humility of the *bhakta*.
5. *Arcana*: the act of worship of *svarūpa*.
6. *Vandana*: the respectful paying of homage to the deity. *Vandana* can include prayers to Krishna.
7. *Dāsya*: servitude. Complete devotion of one's time and energy to the Lord. All activities are done for his God.
8. *Sakhya*: companionship. This is two types: complete faith in Śri Krishna to be protected of the dangers of the world, having the feeling of attachment as in the case of close friends.
9. *Ātmanivedana*: self-dedication. This is the most difficult step. Here one gives himself utterly to Śri Krishna and no longer think of his own welfare.

Thus the tradition suggests that by the faithful practice of these nine steps of *Bhakti Mārga*one can be get rid of the impurities and that culminates in the absolute self-surrender of the *jīva* (individual self) to Śri Krishna and a relation develops between the *bhakta* and Śri Krishna consequently he/she attains liberation.

## Bhakti in the Perspective of Vallabhācārya

Vallabhācārya is a *Vaiṣṇavite* thinker who established a new school of philosophy which is known as *Śuddhādvaitavāda* or the Doctrine of Pure Non-Dualism which is also known as *PuṣtimārgaSampradāya.* He was born on AD 1478 in a forest which is a part of modern Raipur District, Madhya Pradesh.

The pivotal point of the philosophy of Vallabhācārya is bhakti. Bhakti is presented here as the means and end. As per this school everything originates, continues and ends up in bhakti.Vallabhācārya teaches that this bhakti itself is the grace (*Puṣti*) of the Absolute Reality that is Śri Krishna Parabrahman. Therefore, this system is called *Puṣtimārga*.

Vallabhācārya accepts the nine steps suggested by the traditional schools of *Bhakti Mārga*in order to practice *Puṣtimārga*.While suggesting these steps Vallabhācārya stands for a radical difference. In the traditional manner the last step – which is the climax of nine steps – is *ātmanivedana* (self-surrender). And for Vallabhācārya this should be the first step; it should be with anattitude of total surrender that one should practice *Puṣtimārga*. It is the grace of Śri Krishna that helps one to reach in the state of *ātmanivedana*. This grace is the end and means. Only by the grace of Śri Krishna that does one receives the grace of Śri Krishna. To receive this grace one should do away with the self-centred attitude and surrender himself/herself as the servant (*sevaka*). But without the Grace no one can ever become a true servant too. *Seva* is also called the goal of the *Puṣtimārga* and the method – *sādhya* and *sādhanai.*

In bhakti tradition, *bhakti-bhāva* (devotional emotive state) is elaborated into four *bhāvas* namely, dāsyabhāva (the devotional emotion expressed in the form of a servant towards the master), *sakhyabhāva*(emotion that exists in between the friends), *vātsalyabhāva* (the devotee places himself in the position of the parent of Śri Krishna), and *madhurabhāva* (expression of bhakti where one identifies himself with the *gopīs* with whom Krishna had nightly *līla*). To this list one more *bhāva* is added from the classical Sanskrit rasa theory that is the ninth *sthāyibhāva* called *śānthabhāva* (the expression of bhakti free of all extremes of emotion; no passion, no love, nor hate). Among these five the*vātsalyabhāva* is considered as the dominant *bhakti bhāva* of the Vallabhācārya's*sampradāya*. This *bhāva* originates after the model of Nanda and Yaśoda the foster parents of Śri Krishna.

Concerning the practice of *puṣtimārga,*Vallabhācāryamakes a distinction of *laukika* and *alaukika*. The word *laukika* is derived from the word *loka* which means world, earth, living and non-living etc. and *alaukika* is the absence of *laukika*. This distinction is fundamental to the *puṣtimārga*. A follower of *puṣtimārga* has to progress from *laukika* to *alaukika*; that in fact is the transformation of the *jīva* - individual soul- from the state of *duṣta* (defiled, polluted, corrupted, impure) to the state of being *śuḍdha* state that is the real and true state of *jīva*. Therefore puṣtimārga is a process to the restoration of the real. The *laukika* and *alaukika* are not physical states but are states of attitude. They do not result from bodily actions but rather from attitudinal orientation.

## Bhakti as the Ultimate Dharma

The discussion so far has made it clear that regarding the definition of dharma one particular dogmatic position is impossible. This in fact widens the horizons of the meaning and interpretation of the concept;

and precisely on this platform that the bhakti according to Vallabhācārya is presented here as the ultimate dharma.

The comments of ancient literature over the concept of dharma do have relevance in the contemporary understanding of the same. While the Upanishads say that 'everything is founded on dharma', 'speaking truth is dharma' 'compassion is the greatest dharma' and so on, it makes clear that the universe is sustained by dharma. The one who leads a life according to dharma will be supporting the well-being of the entire universe and in turn will be supported by the universe since the very universe is founded on and sustained by dharma. Here it is evident that dharma is reciprocal in the relation between the individual and the universe that both supports and sustains each other. Thus, Dharma even though cannot be categorically defined can be elaborated as the determination to live a life of serenity, synchronization, benevolence, love, symbiosis,and consideration that will show the way to the entire generation towards the internal agreement and harmony within the whole universe and subsequently keep the individual quiet, settled and contented.

The already stated details of the perspective of Vallabhācāryain understanding the traditional concept of bhakti in a novel manner set the platform to recognize it as the ultimate dharma.

The point of departure between the traditional way of practicing bhakti and Vallabhācārya'sperspective of bhakti is regarding the position of *ātmanivedana* to be the first or the last in its order. Vallabhācārya starts with *ātmanivedana* while the traditional bhakti ends up in it as the climax. This point of demarcation makes a world of difference in the aptitudes of the bhakta. *Ātmanivedana*is the complete and unconditional self-surrender before the Lord by which the individual cast off one's ego and considers oneself as the servant of the Lord. The eradication of the 'I' and the 'mine' stimulates the spirit of service.

This leads to the awareness of harmony with the Lord and the entire universe. *Ātmanivedana*is understood in the wide spectrum of the grace (*puṣti*) of the Lord thereby the effects of the same become divine and this orients the devotee towards the way of liberation. Reverberations of the reflections on dharma are evident here. Thus,*ātmanivedana* is nothing but the practice of dharma since it satisfies the qualities of dharma.

Another salient feature of the bhakti of Vallabhācārya is the predominance of the *vātsalyabhāva*. In this emotive mental status, the bhakta considers him/ her in the position of the foster parents of Śri Krishna namely, Nanda and Yaśoda. To be the parent of the Lord is the service par excellent. It is said in the Vallabhācārya*sampradāya* that if one *bhakta* reaches at this level of bhakti the Lord Krishna Himself places Him under his/her control. This state of bhakti demands utmost responsibility from the part of the bhakta exactly as parent towards the child. In the canvas of the philosophy of Vallabhācāryait has wider significance. According to this system there is only one reality exists that is Śri Krishna Parabrahman; yet, the universe is real because it is nothing but the manifestation or the expression of theLord. In this regard being the parent of the Lord is but taking the responsibility to work for the sustenance of the universe as any parent would do towards his/her child. Being a bhakta by living *vātsalyabhāva*is nothing but the practice of dharma since dharma is the reciprocal relationship of sustenance between the individual and the universe.

The attitudinal distinction of *laukika* and *alaukika* by Vallabhācāryaconcerning the practice of bhakti, is indicative. Here the whole universe is respected as worthy to be loved and lived but with a nuance of purified internality and intentionality. Such a shift of emphasis in the orientation towards the world is in fact the result of the total and unconditional self-surrender (*atmanivedana*) of the devotee. Since every possession is surrendered to the Lord the

possessiveness of the individual withers off. This enables one to see the Lord in everything; subsequently to love everything and never to hate. Here the devotee no more consider himself/herself as the master of anything exists but a servant or steward. Such an attitude leads the devotee on the way to selfless service to the universe. Such a paradigm shiftin the orientation can rightly be called the climax of bhakti where the devotee lives a life of self-realisation that he/she is but the Lord Himself. It is self-evident that such an attitudinal orientation is the practice of dharma.

The above drafted details substantiate the claim that in the discipline and philosophy of Vallabhācāryaeverything originates from bhakti (*atmanivedana*), moves in and through bhakti (*vātsalyabhāva*) and culminates in bhakti (*laukika* and *alaukika*). Thus, it is right to say that bhakti is the source and summit of dharma according to the philosophy of Vallabhācārya.

## Conclusion

Dharma is indefinable due to its richness of meaning; no single word will be enough to comprehend its interpretative nuances. It is because of this awareness that each philosophical and religious tradition of the ancient India elaborated it with each one's preferential options. That in fact is not delimiting but exalting the glory of this concept. Thus, Dharma even though cannot be categorically defined can be elaborated as the determination to live a life of serenity, synchronization, benevolence, love, symbiosis, and consideration that will show the way to the entire generation towards the internal agreement and harmony within the whole universe and subsequently keep the individual quiet, settled and contented. It is the reciprocal relationship of sustenance between the individual and the universe.

The reappraisal of the traditional concept of bhakti in the philosophy of Vallabhācārya made clear that the concept of dharma acts as a synonym

to the concept of bhakti where a true bhakta is nobody other than the true practiser of dharma. Thus, it is right to claim that bhakti is the best means to actualise dharma or it is the source and summit of dharma.

It is noteworthy that very often the concepts of bhakti and dharma are kept at distance and imperfectly encapsulated within the walls of religions. The novelty of understanding dharma and bhakti as synonyms and redefining its target as the sustenance and well-being of the entire universe is the need of the day. For, it is on the name of gods and religions that most of the atrocities and intolerances prevail in the present society. In such a scenario, realising dharma and bhakti as a stimulating energy to enhance the well-being of each individual and the entire universe is not a luxury but the necessity of the time.

## References

1. Barz, Richard. *The Bhakti Sect of Vallabhacarya*. Haryana: Thomson Press (India) Limited, 1976.
2. Narain, K. *The Doctrine of Bhakti in Vallabha Vedanta*. Varanasi: Indological Research Centre, 2009.
3. Narain, K. *The Philosophy of the Vallabha School of Vedanta*. Varanasi: Indological Research Centre, 2004.
4. Sankaranarayanan, S. "Dharma: a quest for its definition" in *Jnanagni* (*dharma*), Vol. 2, Issue 1, January, 2011.
5. Shambhavi, Swahilya. "Dharma: one word with many meanings" in *Jnanagni* (*dharma*), Vol. 2, Issue 1, January, 2011.
6. Sharma, Krishna. *Bhakti and the Bhakti Movement*. New Delhi: MunshiramManoharlal Publishers Pvt. Ltd., 1987.
7. Sharma, Gajanan. *PushtiMarga*. Mumbai: AntarRashtriyaPushtiMargiyaVaishnavParishad.

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN : 2277-7881; IMPACT FACTOR – 4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# IMMEDIATE EFFECT OF PROGRESSIVE MUSCLE RELAXATION ON PHYSIOLOGICAL PARAMETERS OF PATIENTS WITH HYPERTENSION IN A SELECTED HOSPITAL OF TAMILNADU

**R.Malathy**
Ph.D Research Scholar
Rani Meyyammai College of Nursing
Annamalai University
Annamalai Nagar Chidambaram
Tamilnadu, India

**Dr. M. Gandhimathi**
Professor of Nursing
Research Guide
Rani Meyyammai College of Nursing
Annamalai University, Annamalai Nagar
Chidambaram, Tamilnadu, India

**Abstract:**

A true experimental study was conducted to determine the effectiveness of PMR on improvement of BP control among patients with hypertension. A total of 30 patients in experimental and 30 in control was selected using simple random sampling technique. Pre test was conducted for both the groups followed by PMR training to the experimental group and the control group received routine treatment. Physiological parameters were reassessed after the intervention. The study revealed a reduction in SBP 12.33 mm Hg to about pulse rate 0.10 beats per minute in the experimental group and the control group 8.33 mm Hg of blood pressure and 0.20 beats / minute of pulse rate reduction in the post test. The 't' test was applied to compare the effectiveness of PMR between the experimental and control group and it is found that PMR was highly effective in controlling of BP which was statistically highly significant (P>0.000*). There was no significant association between pre test blood pressure and heart rate with regard to demographic characteristics except graduate education which showed in the experimental group and except urban residence and the nuclear family in the control group. This implies that regular PMR improves significant control BP among patients with hypertension.

**KEYS:** Hypertension, Progressive muscle relaxation, physiological parameters.

## INTRODUCTION

**"To keep the body in good health is a duty, otherwise we shall not be able to keep our mind strong and clear." – Buddha**

Hypertension is the largest risk factor for cardiovascular diseases, growing in prevalence and poorly controlled virtually everywhere. Prevention is possible, although rarely achieved, and treatment can lead to a reduced incidence of complications, including stroke, coronary heart disease, heart failure, and kidney disease. By 2030, 23 million cardiovascular deaths are projected, with 85% occurring in low- and middle-income countries.

The estimated 57 million global deaths in 2008, 36 million (63%) were due to noncommunicable diseases (NCDs). The largest proportion of NCD deaths is caused by cardiovascular diseases (48%). In terms of attributable deaths, raised blood pressure is one of the leading behavioral and physiological risk factor to which 13% of global deaths are attributed. Hypertension is reported to be the fourth contributor to premature death in developed countries and the seventh in developing countries. India has low rates of hypertension compared to world figures. In India, 23.10 per cent men and 22.60 per cent women above 25 years suffer from hypertension **(World Health Statistics 2012)**.

**May 17th is** designated as World Hypertension day by the World Hypertension League.

**WHO (2012)** reported that in the world 972 million people to be suffering from hypertension.

**Praveen Chandra (2012)** stated that hypertension occurs in more than two thirds of individuals over the age of 65. The increased blood pressure was a dangerous condition that caused nearly 51% of death from strokes and 45% of coronary artery disease. Relaxation

techniques have been reported to reduce stress and hypertension. Among the various relaxation techniques, the practice of progressive muscle relaxation (PMR) is the simple and effective method to decrease muscle tension, reduce the level of stress, and lower the blood pressure.

## STATEMENT OF THE PROBLEM

Immediate effect of Progressive Muscle Relaxation on physiological parameters of Patients with Hypertension in a selected hospital, Tamilnadu.

## OBJECTIVES

- To check the pre test physiological parameters of patients with Hypertension.
- To evaluate the immediate effect of progressive muscle relaxation of patients with hypertension.
- To associate pre test physiological parameters with selected demographic variables.

## HYPOTHESIS

H1 – There will be a significant difference between pre test and post test physiological parameters of patients with hypertension.

H2 _ There will be a significant difference in physiological parameters between control and experimental group patients with hypertension.

H3 – There will be a significant association between the physiological parameters with selected demographic variables.

## METHODOLOGY

### Research design

Using a quantitative approach, pretest and post test only true experimental research design was chosen for this study.

## Variables

### Independent variable:

Progressive muscle relaxation

### Dependent variable

Physiological parameters such as blood pressure and pulse rate rate

### Settings of the study

This study was conducted at the hypertension out patient department of Kannan hospital, Cuddalore.

### Population

Both male and female patients who were diagnosed to have hypertension and not having any complications during the study period and getting anti hypertensive drugs were taken as the study population.

### Sample size

A total sample of 60 male and female patients, 30 in experimental group and 30 in the control group with hypertension who met the inclusion criteria were selected using simple random sampling technique.

### Sampling technique

The simple random sampling technique was chosen to select the subjects for the study.

### Criteria for sample selection:

### Inclusion criteria:

1) Patients who were diagnosed to have hypertension.

2) Patients with hypertension who were attending hypertension outpatient department regularly.
3) Patients with hypertension who were able to understand and communicate in Tamil.
4) Patients with hypertension between 20 and 70 years of age.
5) Patients with hypertension from both genders.
6) Patients with hypertension who were willing to participate in the study

**Exclusion criteria**

1. Patients with hypertension who were having complications due to hypertension during the study period.
2. Patients with hypertension those who were admitted in the hospital.
3. Mentally ill patients with hypertension
4. Patients with hypertension who were having a hearing impairment.
5. Patients with hypertension who were having sports injuries and muscle spasm in the limbs.

## DESCRIPTION OF THE DATA COLLECTION INSTRUMENT

The tool used for collection of data was structured teaching demonstration.It consist of the following

**Part I:** Demographic data

**Part II:** Health profile

**Part III:** Checklist for progressive muscle relaxation

**Part I**

It consisted of demographic variables (9 items) such as age, gender, religion, education, occupation, family income, marital status, family history of hypertension and sources of information on progressive muscle relaxation therapy.

**Part II**

It consisted of six items of health profile such as onset of disease, duration of disease, hospitalization, drug intake and harmful habits.

**Part III**

It consisted of 18 steps of progressive muscle relaxation.

## DATA COLLECTION PROCEDURE

The data were collected between July 2016 to August 2016. The patients were selected by using a simple random sampling technique at the hypertension outpatient department of Kannan hospital, Cuddalore. The pretest was conducted after obtaining informed written consent from the participants. The demographic data and health profile were collected. Pretest blood pressure and pulse rate were measured for both experimental and control groups.

On the same day after the pretest, the samples in the experimental group were gathered and seated comfortably at the hypertension outpatient department. Five patients were selected per day. Patients were taught and demonstrated the steps of PMR by the investigator and queries were clarified. Then the patients were asked to perform PMR under the supervision of an investigator. Immediately after PMR, the physiological parameters such as blood pressure and pulse rate were checked. Patients were instructed to practice the progressive muscle relaxation every day at home for better effect.

## ANALYSIS AND FINDINGS

### TABLE 1: DISTRIBUTION OF DEMOGRAPHIC VARIABLES OF PATIENTS WITH HYPERTENSION IN CONTROL AND EXPERIMENTAL GROUPS

N=60

| S.No | Demographic variables | | Experimental Group (N=30) | | Control Group (N=30) | |
|---|---|---|---|---|---|---|
| | | | Number | % | Number | % |
| 1 | Age (Years) | 20 – 30 years | - | - | - | - |
| | | 31 – 40 years | 2 | 6.7 | 2 | 6.7 |
| | | 41 – 50 years | 6 | 20 | 9 | 30 |
| | | 51 – 60 years | 10 | 33.3 | 12 | 40 |
| | | 61 – 70 years | 12 | 40 | 7 | 23.3 |
| 2 | Gender | Male | 17 | 56.7 | 15 | 50 |
| | | Female | 13 | 43.3 | 15 | 50 |
| 3 | Residence | Rural | 15 | 50 | 17 | 56.7 |
| | | Urban | 15 | 50 | 13 | 43.3 |
| 4 | Religion | Hindu | 19 | 63.3 | 24 | 80 |
| | | Christian | 6 | 20 | 2 | 6.7 |
| | | Muslim | 5 | 16.7 | 4 | 13.3 |
| | | Others | - | - | - | |
| 5 | Educational status | No formal education | 3 | 10 | 6 | 20 |
| | | Primary school | 12 | 40 | 13 | 43.3 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | Middle school | 2 | 6.7 | 4 | 13.3 |
| | | High school | 6 | 20 | 2 | 6.7 |
| | | Higher secondary | 4 | 13.3 | 3 | 10 |
| | | Graduate & above | 3 | 10 | 2 | 6.7 |
| 6 | Occupation | Farmer and Coolie | 18 | 60 | 10 | 33.3 |
| | | Housewife | 10 | 33.3 | 16 | 53.3 |
| | | Others | 2 | 6.7 | 4 | 13.3 |
| 7 | Income | Below Rs.5000 | 20 | 66.7 | 18 | 60 |
| | | Rs.5001– Rs.10000 | 6 | 20 | 7 | 23.3 |
| | | Above Rs. 10000 | 4 | 13.3 | 5 | 16.7 |
| 8 | Marital status | Married | 20 | 66.7 | 18 | 60 |
| | | Unmarried | - | - | - | - |
| | | Divorced / separated | - | - | - | - |
| | | Widow | 10 | 33.3 | 12 | 40 |
| 9 | Type of family | Nuclear family | 25 | 83.3 | 26 | 86.7 |
| | | Joint family | 5 | 16.7 | 4 | 13.3 |

Table 1 shows the demographic variables of patients with hypertension, which revealed that in the experimental group, 13 patients (43.3%) were belonged to age group of 41 to 50 years, 8 (26.7 %) were belonged to age group of 51 to 60 years, whereas in the control group, 40% and 30% patients belonged to the age group of 51-60 years and 41-50 years respectively. Seventeen (56.7 %) were male and 13 (43.3 %) were female in the experimental group. The control group had an equal percentage of male and female patients. The equal percentage of the experimental group patients were residing in both the urban and rural areas. The majority of control group patients (56.7%) were residing in the rural areas. The majority of them 19 (63.3 %) were Hindu in the experimental group and 24 (80%) in the control group. Twenty patients (66.7) % in the experimental group and 18 (60%) in the control group were married. Regards to income, 66.7% in the experimental group and 60 % in the control group had a monthly income less than Rs. 5,000. The majority of them 25 (83.3 %) in the experimental group and 26 (86.7%) in the control group belonged to a nuclear family.

**TABLE 2: Distribution of health profile of patients with hypertension in control and experimental group.**

**N=60**

| S. No. | Health Profile | | Control group (N=30) | | Experimental group (N=30) | |
|---|---|---|---|---|---|---|
| | | | Number | (%) | Number | (%) |
| 1 | Onset of disease | Below 20-30 years | - | - | - | - |
| | | Above 31-40 years | 30 | 100 % | 30 | 100 % |
| 2 | Duration of Disease | 1 – 5 Years | 10 | 33.3 % | 25 | 83.3% |
| | | Above 5 years | 20 | 66.7 % | 5 | 16.7% |
| 3 | Previous history of hospitalization | Yes | 19 | 63.3 % | 27 | 90 % |
| | | No | 11 | 36.7 % | 3 | 10 % |
| 4 | Do you take drugs regularly for hypertension? | Yes | 13 | 43.3 % | 16 | 53.3 |
| | | No | 17 | 56.7 % | 14 | 46.7 |
| 5 | When do you consult a doctor? | Periodically | 2 | 6.7 % | 2 | 6.7 |
| | | As advised by the doctor | 6 | 20 % | 7 | 23.3 |
| | | When health problem arises | 15 | 50 % | 13 | 43.3 |
| | | When time permits | 7 | 23.3 % | 8 | 26.7 |
| 6 | History of any harmful habits | Taking alcohol | 7 | 23 % | 3 | 10 |
| | | Smoking | 15 | 50 % | 5 | 16.7 |
| | | Both | 4 | 13.3 % | 10 | 33.3 |
| | | Tobacco chewing | 2 | 6.7 % | 11 | 36.7 |
| | | None | 2 | 6.7 % | 1 | 3.3 |

Table 2 shows the distribution of health profile of patients with hypertension. All patients reported to have the onset of hypertension above the age of 20 years in both the groups. The majority of the patients i,e 20 (66.7 %) in the experimental group and 25(83.3%) in the control group had hypertension for more than 5 years. Nineteen (63.3 %) patients in the experimental group and 27 (90%) in the control group had previous hospitalization. Thirteen (43.3%) patients in the experimental group and 16 (53.3%) in the control group had the regular drug intake for hypertension. Half of them 15 (50 %) was smoking regularly in the experimental group and 11 (36.7%) in the control group had tobacco chewing. Fifteen (50%) patients in the experimental group and13 (43.3%) in the control group took treatment only when a health problem arises.

**TABLE 3: Comparison of physiological parameters of patients with hypertension at pretest and post test between experimental and control group.**

**N=60**

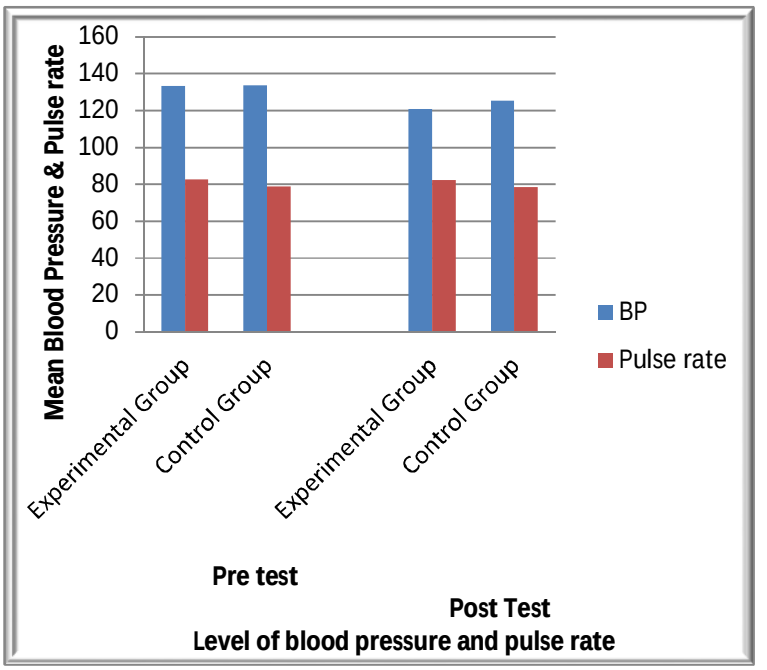
| Group | Pre test | | Post test | | SD | 't' Value | P-Value |
|---|---|---|---|---|---|---|---|
| | Mean Blood pressure | Mean Pulse rate | Mean Blood pressure | Mean Pulse rate | | | |
| **Experimental group (n=30)** | 133.33 mm Hg | 82.57 beats/ min | 121.00 mm Hg | 82.47 beats/ min | 10.400 | 6.495 | P< 0.000* |
| **Control group (n=30)** | 133.67 mm Hg | 78.80 beats/ min | 125.33 mm Hg | 78.60 beats/ min | 7.915 | 5.767 | 0.089 |

*Statistically highly significant

Table 3 shows the blood pressure and pulse rate of patients in the experimental and control group. Finding indicated that lecture cum demonstration on PMR was statistically highly effective (P< 0.000*). The result is shown in diagrammatic representation in figure 1.

**Figure 1: Comparison of physiological parameters of patients with hypertension at pretest and post test for between experimental and control group.**

**N=60**



## RESULTS AND FINDINGS

The study revealed that a 12.3 mm Hg of blood pressure (BP) and pulse rate (PR) 0.10 beats per minute in the experimental group, whereas in the control group 8.33 mm Hg of blood pressure and 0.20 beats / minute of pulse rate reduction in the post test. The t' test was applied to compare the effectiveness of pre and post test blood pressure and pulse rate in both the group. It was found that PMR improved BP control among patients with hypertension and it was statistically highly significant (P>0.000*) in the experimental group. There was no significant association between pre test physiological parameters and demographic characteristics except graduate education in the experimental group and except urban residence and the nuclear family had a positive association with BP in the control group. The pretest highlights the importance of implementation of PMR on a routine patients care measure which is a cost effective intervention.

## DISCUSSION

A true experimental study was done to assess the effect of Progressive Muscle Relaxation on the physiological parameters such as blood pressure and pulse rate of patients with hypertension. The study findings showed that lecture cum demonstration on progressive muscle relaxation was statistically highly effective. PMR has proven effects on blood pressure control among patients with hypertension and creating an awareness regarding prevention of complications of hypertension through the progressive muscle relaxation. This result was similar to the findings of **Sheu Sheila et al (2013).** They found that systolic and diastolic blood pressure and pulse rate was higher before progressive muscle relaxation. **Nisha Shinde et al (2013)** study supported the resulting findings and they revealed that blood pressure and pulse rate reduced significantly immediately after 30 minutes of Jacobson's progressive muscle relaxation.

## CONCLUSION:

Progressive muscle relaxation therapy was found to be effective in improvement of blood pressure control and reduction of pulse rate. The study result showed that as education increases the blood pressure control also improving which understand the importance of PMR.

## RECOMMENDATIONS:

- Progressive muscle relaxation should be taught and demonstrated periodically and a diary can be maintained for ensuring patients participations in health education program related to hypertension.
- Self management education material on hypertension like PMR should be available in the clinic.
- Hypertension self management education should be made mandatory in hospitals.
- Video can be played and should be taught routinely in the hypertensive clinic.

## BIBLIOGRAPHY:

1.Bare G. Brenda, Smeltzer, C. Suzanne. *"Brunner and Suddarth's Textbook of Medical Surgical Nursing",* 8th Edition, Philadelphia: Lippincott Williams and Wilkins, 2003, 634-637.

2.Joyce M. Black Jane Hokanson Howbs, "*Text book of Medial Surgical Nursing"*, 7th edition, New Delhi: Elsevier, Volume -2: 2004, 1489-90.

3.K.Park, "*Text book of preventive and social medicine",* 21st edition, Jabalpur: Banarsidas Bharnot, 2012, 346.

4.Kearney PM, Whelton M, Reynolds K, Whelton PK, He J. Worldwide prevalence of hypertension: a systematic review. *J Hypertens*. 2004;22: 11–19.

5.Mathers CD, Loncar D. Projections of global mortality and burden of

disease from 2002 to 2030. *PLoS Med*. 2006;3: e442.

6.NishaShinde (2013), "The study to assess the effectiveness a Jacobson's relaxation technique'', *Indian journal of physiotherapy and occupational therapy,* Vol: 7, 234-37.

7.Patell HM (2012), "Effect of relaxation technique on blood pressure in essential hypertension", *National journal of integrated research in medicine periodical*, 2230-36.

8.Polit Denise F and Bernadetle P Hungler.*" Textbook of Nursing Research*", 4th edition, Philadelphia: Lippincott Williams and Wilkins, 1995. Page No. 84-89.

9.Praveen Chandra.V. (2012). Hypertension in old age. *Indian Heart Journal*, 12(3), 18-21

10.V Kumutha (2014), "Effectiveness of progressive muscle relaxation technique on stress'', *Journal of nursing a Health science*, Vol:3, Page No:1-3

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN : 2277-7881; IMPACT FACTOR – 4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# NON FARM LIVELIHOODS – EMPOWERMENT OF WOMEN-SEWING MACHINE TRAINING CENTRES ––LIVELIHOOD ENHANCEMENT OF RURAL WOMEN (SHG'S) IN CHITTOOR DIST

**Ramesh Reddy.T**
Research scholar
Rayalaseema University
Kurnool

Women have always been marginalized and downgraded to the status of subjugated class in the Indian society. The Indian women farmer ,almost never publicly acknowledged ,reviled by superstition and patriarchy, and increasingly troubled by entrenched social and cultural mores taboos bears the burden of farm labour.Nearly 98 million Indian women have agricultural jobs, but around 63% of them or 61.6 million women are agricultural labourers,dependent on the farms of others ,according to 2011 census data. There has been a 24% increase in the number of female agricultural laborers ,from 49.5 million in 2001 to 61.6 million in 2011.a raft of interventions have been initiated to empower these women .the women have the drive ambition and capability to create streams of income for themselves. But they often need a lump sum to get started .through the group all manner of self employment sewing machines could be facilitated with a small amount of capital for sewing machines. Their collective strength used as social collateral to avail loans from financial instutioins.That ensures social pressure to repay. Through exposure to various roles on these selp help groups, women have become more self confident in their activities.

Chittoor is a part of Rayalaseema region of Andhra Pradesh. The district occupies an area of 15,359 square kilometers (5,930 sq mi). The district is bounded by Anantapur District to the northwest, Kadapa District to the north, Nellore District to the northeast, Krishnagiri district, Vellore District and Tiruvallur District of Tamil Nadu state to the south, and Kolar District of Karnataka state to the west. Chittoor

district lies extreme south of the Andhra Pradesh state approximately between 12°37′ - 14°8′ north latitudes and 78°3′ - 79°55′ east longitudes. Thirty percent of the total land area is covered by forests in the district. Mango and tamarind groves surround the city of Chittoor, and cattle are raised in the district. The soils in the district constitute red loamy 57%, red sandy 34% and the remaining 9% is covered by black clay black loamy, black sandy and red clay Chittoor is 160 km from Chennai, 180 km from Bangalore and 590 km from Hyderabad. Chittoor District was formed on 1 April 1911, taking Chittoor, Palamaneru, Chandragiri from the then North Arcot District of Madras State and Madanapalli, Vayalpadu from Kadapa and Punganur, srikalahasti karvetinagar zamindari provinces to form united chittoor dist.

The district is divided into 3 revenue divisions viz., Chittoor, Tirupati and Madanapalle. Each revenue division is divided into mandals. The district has 66 mandals under these 3 revenue divisions. There are 2 Municipal Corporations of Chittoor and Tirupati and 6 municipalities of Madanapalle, Punganur, Palamaner, Nagari, Srikalahasti and Puttur in the district.

| | | |
|---|---|---|
| 1. B. Kothakota | 2. Gangavaram | 3. Karvetinagar |
| 4. Baireddipalle | 5. Gudipala | 6. Kuppam |
| 7. Bangarupalem | 8. Gudupalle | 9. Kurabalakota |
| 10. Buchinaidu khandriga | 11. Gurramkonda | 12. Madanapalle |
| 13. Chandragiri | 14. Irala | 15. Mulakalacheruvu |
| 16. Chinnagottigallu | 17. K.V.B. Puram | 18. Nagalapuram |
| 19. Chittoor | 20. Kalakada | 21. Nagari |
| 22. Chowdepalle | 23. Kalikiri | 24. Narayanavanam |

| | | |
|---|---|---|
| 25. Gangadhara nellore | 26. Kambhamvaripalle | 27. Nimmanapalle |
| 28. Nindra | 29. Pitchatur | 30. Ramakuppam |
| 31. Pakala | 32. Pulicherla | 33. Ramasamudram |
| 34. Palamaner | 35. Punganur | 36. Renigunta |
| 37. Palasamudram | 38. Puthalapattu | 39. Rompicherla |
| 40. Peddamandyam | 41. Puttur | 42. Santhipuram |
| 43. Peddapanjani | 44. Rama Chandrapuram | 45. Satyavedu |
| 46. Peddathippasamudram | 47. Pitchatur | 48. Ramakuppam |
| 49. Sodam | 50. Thottambedu | 51. Tirupati (rural) |
| 52. Somala | 53. Tirupati (urban) | 54. Vadamalapeta |
| 55. Srikalahasti | 56. Valmikipuram | 57. Varadaiahpalem |
| 58. Srirangarajapuram | 59. Vedurukuppam | 60. Venkatagirikota |
| 61. Vijayapuram | 62. Yadamari | 63. piler |
| 64. Yerpedu | 65. Yerravaripalem | 66. gudipala |

The scheme is spread over 66 mandals in the dist and constituency wise one training centre allotted. Due to lack of specific implementation of plans, local communities especially women have remained outside the scope and benefits of government schemes and programs. Women have not actively participated in their emancipation due to their lack of economic independence and illiteracy. There is a need to address the issue by raising the status of women. Keeping this issue in mind SERP started running training programs for the empowerment of women.

The main objective of this tailoring training program is to enhance the quality of life of women and teenage girls through enhancement of their skills and knowledge. Due to poverty, these teenage girls

drop out of high school to get married and work as temporary farm workers, sweepers and manual scavengers. They needed to learn newer vocational skills such as tailoring (sewing) which can help them earn more income and become economically self-sufficient and independent. This will alleviate poverty, help them support their family needs without being dependent of husband and parents. In order to help them, SERP started free tailoring (sewing) training centers in various locations.

In these training centers, tailoring skills are imparted free of cost. Students are trained by a qualified professional tailoring teacher. Certificates are given to those who successfully complete the course. These tailoring classes enable women/Girls in rural established and SHG women trained in these centers. The Society for elimination rural poverty (SERP) Project objective is to provide sustainable Non Farm sector livelihoods to Selp help groups (SHG's). as per the Plan of SERP,in the district level Project Directors are aware of the instructions issued in reference cited on establishing Domestic Sewing machines Training Centers in all Assembly constituencies in 13 districts. The training budget @ Rs.38,000/- per batch per centre is released to all the districts.

**STAFF OF SERP CHITTOOR:**

| SERP STAFF DETAILS AT CHITTOR DIST LEVEL | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **S.No.** | **District** | **Total Mandals** | **APRIGP Mandals** | **DPM** | **AC** | **APM** | **CC** | **CC-RIGP Mandals** | **RIGP** |
| 1 | Chittoor | 66 | 12 | 13 | 6 | 66 | 279 | 18 | 36 |

Most of the mandals 279 No.of Community coordinators of Chittoor dist have done mobilization only in Rural area and they

given sufficient time to start the Stitching trainings at constuiency level. Unemployed women and house waives were majorly benefitted from the Schemes.

It is to inform that Hon'ble Chief Minister during the Annual General Body Meeting of StreeNidhi held in Vijayawada on 08-09-2016 announced that SHG women trained on Stitching activity shall be distributed Domestic Sewing Machines with 50% subsidy. This subsidy amount would be borne from the dividend that Government of Andhra Pradesh accrued from StreeNidhi. Most of the Dist have completed the Trainings.The total achievement is 26070 no.of women members at 392 training centres of 663 mandals covered under this scheme in overall AndhraPradesh.

| DIST.WISE PROGRESS IN THE STATE OF AP -2016-2017 | | | | |
|---|---|---|---|---|
| **S.No** | **District Name** | **Total Mandals** | **Total Centers** | **No Of Trainees** |
| 1 | Anantapuramu | 63 | 36 | 1836 |
| 2 | Chittoor | 66 | 18 | 1667 |
| 3 | East Godavari | 51 | 46 | 2218 |
| 4 | Guntur | 57 | 16 | 676 |
| 5 | K R Puram | 6 | 29 | 2338 |
| 6 | Kadapa | 50 | 29 | 1709 |
| 7 | Krishna | 49 | 17 | 966 |
| 8 | Kurnool | 54 | 17 | 611 |
| 9 | Nellore | 46 | 5 | 689 |
| 10 | Paderu | 11 | 9 | 904 |
| 11 | Parvathipuram | 8 | 12 | 1535 |
| 12 | Prakasam | 56 | 13 | 622 |
| 13 | Rampachodavaram | 11 | 46 | 2218 |
| 14 | Seethampeta | 7 | 24 | 2069 |
| 15 | Srikakulam | 31 | 24 | 2069 |
| 16 | Visakhapatnam | 28 | 9 | 904 |
| 17 | Vizianagaram | 26 | 12 | 1535 |
| 18 | West Godavari | 43 | 29 | 2338 |
| **Total** | | **663** | **392** | **26070** |

During the 2016-2017 Year in chittoor dist 1667 women members have received the training at 38 places 17 number of Master trainers were trained the all the members. In this regard the Project Directors are informed that on the eve of International Women's' Day on March 8th, domestic Sewing Machines shall be distributed to SHG women trained in the stitching training centres established by DRDAs in pursuance of the instructions issued in ref cited. These machines will be given on 50% subsidy.

**The following norms shall be followed in this regard:**

(1) The SHG women trained in the training centers established by following the guidelines issued in ref cited are eligible for receiving the sewing machines on 50% subsidy.

(2) Rs.3000/ or 50% of Sewing machine cost whichever less will be released to districts from SERP.

(3) The balance amount shall be collected from the SHG women as beneficiary contribution from the capital infusion amount released under Chandranna Cheyutha.

(4) The beneficiary share collected shall be pooled in a separate account.

(5) Domestic Sewing Machines as per the specifications mentioned herein shall be procured by the Project Directors through District Level Purchase Committee.

(6) The Project Directors are informed that branded Domestic sewing machines like Singer, Merritt, Usha or any other brand with foot basic with stand and table (Link model) shall be preferred. The size may be 36"x18"x43.6" inches with cast iron material. 2 years seller warranty from the date of invoice and ISI mark shall be followed.

(7)

**CHITTOOR DIST WISE TRAINING CENTRE WISE DETAILS-2016-2017**

| S.No | Mandal | Place | Start Date | End Date | Trainer Name | No. of Trainees |
|---|---|---|---|---|---|---|
| 1 | Gangadhara Nellore | Gangadharanellore | 1/3/2016 | 1/4/2016 | G Madhavi | 120 |
| 2 | Gangavaram | Gangavaram | 2/6/2016 | 1/7/2016 | C.Bharathi | 35 |
| 3 | Gangavaram | Gangavaram | 11/7/2016 | 10/8/2016 | C.Bharathi | 4 |
| 4 | Gangavaram | Gangavaram | 26-02-2016 | 26-03-2016 | C.Bharathi | 72 |
| 5 | Gangavaram | gangavaram | 6/4/2016 | 5/5/2016 | C.Bharathi | 39 |
| 6 | Gudipala | Gudipala | 29-02-2016 | 29-03-2016 | V Vani | 40 |
| 7 | Gudipala | velugu mandala mahila samakya Gudipala | 1/4/2016 | 30-04-2016 | V Vani | 43 |
| 8 | Gudipala | velugu mandala mahila samakya Gudipala | 1/5/2016 | 31-05-2016 | V Vani | 35 |
| 9 | Nagari | Nagari | 11/4/2016 | 11/5/2016 | C Aswani | 5 |
| 10 | Nagari | Nagari | 1/10/2016 | 1/11/2016 | C Aswani | 39 |
| 11 | Nagari | Nagari | 4/3/2016 | 3/4/2016 | C Aswani | 26 |
| 12 | Nagari | Nagari | 18-08-2016 | 18-09-2016 | C Aswani | 37 |
| 13 | Nimmanapalle | NIMMANAPALLI | 1/4/2016 | 30-04-2016 | C Savithri | 40 |
| 14 | Nimmanapalle | NIMMANAPALLI | 5/5/2016 | 5/6/2016 | C Savithri | 39 |
| 15 | Nimmanapalle | Nimmanapalli | 1/3/2016 | 31-03-2016 | C Savithri | 43 |
| 16 | Nimmanapalle | Nimmanapalli | 12/9/2016 | 12/10/2016 | C Savithri | 37 |
| 17 | Pileru | Pileru | 11/3/2016 | 11/4/2016 | G ESWARAMMA | 22 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 18 | Pileru | Pileru | 13-04-2016 | 13-05-2016 | G ESWARAMMA | 39 |
| 19 | Pileru | Pileru | 5/2/2016 | 5/3/2016 | G ESWARAMMA | 59 |
| 20 | Pileru | Pileru | 16-05-2016 | 16-06-2016 | J NAGARAJAMMA | 40 |
| 21 | Pileru | Pileru | 20-06-2016 | 20-07-2016 | J NAGARAJAMMA | 49 |
| 22 | Pileru | Pileru | 1/8/2016 | 31-08-2016 | J NAGARAJAMMA | 15 |
| 23 | Punganur | PUNGANUR | 29-02-2016 | 28-03-2016 | KAVALI VIMALA | 79 |
| 24 | Punganur | PUNGANUR | 1/7/2016 | 31-07-2016 | KAVALI VIMALA | 41 |
| 25 | Puthalapattu | PUTHALAPATTU | 25-02-2016 | 25-02-2016 | V Himabindhu | 40 |
| 26 | Rama Kuppam | BALLA | 7/9/2016 | 6/10/2016 | M KUTTIYAMMA | 34 |
| 27 | Rama Kuppam | BALLA | 24-02-2016 | 24-03-2016 | M KUTTIYAMMA | 53 |
| 28 | Satyavedu | SASTHYAVEDU | 18-05-2016 | 18-06-2016 | LAKSHMIPRIYA.J | 39 |
| 29 | Satyavedu | SASTHYAVEDU | 1/8/2016 | 30-08-2016 | LAKSHMIPRIYA.J | 32 |
| 30 | Satyavedu | SASTHYAVEDU | 26-02-2016 | 26-03-2016 | LAKSHMIPRIYA.J | 45 |
| 31 | Srikalahasti | SRIKALAHASTI | 1/3/2016 | 31-03-2016 | AMANJULA | 20 |
| 32 | Srikalahasti | SRIKALAHASTI | 18-01-2016 | 20-01-2016 | AMANJULA | 54 |
| 33 | Srikalahasti | SRIKALAHASTI | 5/8/2016 | 5/9/2016 | d prasanna | 73 |
| 34 | Thamballapalle | THAMBALLAPALLI | 21-09-2016 | 20-10-2016 | Balaka . Sukanya | 74 |
| 35 | Thamballapalle | THAMBALLAPALLI | 25-01-2017 | 24-02-2017 | | 20 |
| 36 | Thamballapalle | Thamballapalle | 25-02-2016 | 10/4/2016 | prameela | 43 |
| 37 | Tirupati Urban | TIRUPATHI URBAN | 28-03-2016 | 26-04-2016 | A JAKEERA | 40 |
| 38 | Yerravaripalem | YERRAVARIPALEM | 24-02-2016 | 24-03-2016 | GUNASUNDHARI | 122 |
| | | | | | | 1667 |

C.Aswini age about 30 years Master stitching Trainer Nagari mandal expressed her opinion in her words. she trained 107 No. of rural women .all were got sewing machines with subsidy 50%.they are earning Rs 3000/- to Rs 5000/- per month as part time work. Remaining time they will spend as usual.

N.Sujatha Trainee age about 23 years of Gundrajukuppam village of Nagari Mandal in the chittoor dist. she expressed her satisfaction about in her words. she told that she got confidence about life because she observed skills in stitching and she is starting tailoring at her own village in her house only .she is earning Rs 3000/- to Rs 5000/- amount.

**One month Training Content:**

- Fundamentals of Sewing machines-Maintenance and servicing of machines
- Demo cloth and cutting shapes in rural area.
- Blouse Stitching and designs- in fashionable way
- Cutting of Cloths-designs.
- Different types of lady wearing clothes-Punjabi dresses, nighties and etc.
- Marketing strategy in rural area-approaching bulk orders, near shops.

1667 SHG members received Domestic Sewing Machines after completion of one month training at constituency level in chittoor dist of Andhra Pradesh. Rs.3000/ or 50% of Sewing machines 1667 Members got subsidy from SERP.

## IMPACT ON RURAL WOMEN:

- Rural women Self confidence will increase and income level also will increase.
- Status of women in society will hike because Income and Livelihoods
- With in Village they will get livelihoods opportunity on their own.
- Rural women/Girls can start their own tailoring shops at their village level.
- If they want to join in garments will secure well-paying jobs with social identity.
- Export garment factories in the nearby areas.
- Sub-contract work from large tailoring shops.

## RECOMMANDATIONS:

- Cluster level or Division level factory or manufacturing unit of garments for sustainable income for rural women.
- District level or Divisional level agreements or Tie-ups with Govt Dept: School uniforms,Mosquitos Nets,etc.
- Stitching Training should be 3 months period.
- Follow-up of after completion stitching training
- Contents should include designing, Embroidery etc.

## REFERENCES:

- Official Website of SERP – AndhraPradesh.
- Mandal Samakya Offices-Nagari,- AndhraPradesh
- Office of SERP –Chittoor –AndhraPradesh

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN : 2277-7881; IMPACT FACTOR – 4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# INDUSTRIALISATION AND FAMILY LIFE DISINTEGRATION: A CASE STUDY OF JK CEMENT INDUSTRIAL PLANT, KASHMIR, INDIA

**Rayees Ibrahim Lone**
Ph. D Research Scholar
Department of Sociology
Annamalai University
Annamalainagar
Chidambaram, Tamil Nadu

**Dr.S.Subramani**
Assistant Professor
Department of Sociology
Annamalai University
Annamalainagar
Chidambaram, Tamil Nadu

## Abstract

Family is the fundamental and backbone institution of a society. It is a universal and primary social institution which undertakes several essential and non essential functions in the life of an individual. It plays important role in nurturing and socialization of its members and is a great device of social behavioural control. It plays great and responsible role in the fulfilment of basic needs of its members. It is an institution which is responsible for maintaining and building the social relationships and also regulates and maintains sexual behaviour of an individual in a legal and customary manner. But as the development of Industrial revolution, family life has been changed and disintegrated unpredictably. Various kinds of factories and industries were setup throughout the globe which results starting of urbanisation process and environmental degradation by certain kinds of pollutants released by these plants. People have started migration from rural to industrial areas in either searching of jabs or good facilities of life. Industrialisation not only attracts people for the availability of jobs, but also pushes number of families to other places because of environmental pollution problems in their residential zones. Therefore, industrialisations play the role of both push and pull factors of migration of the people. This movement of people has created various

problems such as involuntary family displacement, reduction in the size of family, loss of traditional values and customs, loss of kinship relations, breakdown of family ties, loss of family control, family insecurity, mental and emotional disturbance. The present study attempts to examine the impacts of industrialization on the family life disintegration in and around the Jk cement industrial plant in Khrew area of Pulwama district of Jammu & Kashmir state.

**Keywords**: Industrialisation, Urbanisation, Environmental Degradation, Family Life Changes.

## *Introduction*

The basic unit of social structure in every society is the family. Sociologists defined family as a social group characterised by common residence, economic cooperation, identification with obligations towards the members and way of tracing the descent. A family is a group of persons united by the ties of marriage, blood or adoption constituting a single household, interacting and intercommunicating with each other in their respective social roles of husband and wife, mother and father, son and daughter, brother and sister, cradling and maintaining a common culture (Burgess and Locke). Family performs four types of functions that are reproduction, maintenance, placement and socialisation (Morgan)

Agriculture needs a settled community life near the field. So, a close-knit family unit develops with kin group and cooperation in the process of production. Family is predominantly patriarchal and joint family becomes a norm. On the other hand, industrial society requires out-migration of working member's particularly male workers to the industrial centres which develop into an urban area. It leads to the development of nuclear family around the production unit. So, they are detached from the larger kin groups which they had left behind in their respective villages.

With the advent of industrial civilisation and modern technology, new factories of social transformation began to accumulate which were potent enough to cause devastating social changes and in time shattered many of the old foundation of family life. Not only the economic functions of family has been changed but also other traditional activities of the family were transferred to outside agencies, thus further weakening both the bonds of consanguine and conjugal ties that in the past kept the family together. There occurred a reduction in the educational, recreational, religious, affection and protective functions of the family which have been more or less taken over by various institutions and agencies created for that purpose. The school, the commercial and communal recreation facilities, church, hospitals etc., are performing many of the tasks earlier performed by the family (Eliot and Merrill).

Industrialisation has forced the people to leave their place of birth and move to bigger cities in search of better employment opportunities. Thus the link between kinship and the occupational structure has been broken down. Industrialisation not only attracts people towards better employment opportunities, but also pushes to leave the industrial zones to other safer places in order to protect themselves from environmental hazardous conditions created these industries. Therefore, in both circumstances, family life gets disturbed and disintegrated in number of ways. The family that was the principle unit of production has been transformed into a consumption unit. Instead of all the family members working together in an integrated economic enterprise, a few members go out of the house to earn living needs, but due to industrialisation and urbanisation processes, the family functions have affected tremendously. Factory employment has freed young adults from the direct dependence of their families. This has weakened the authority of the head of family (Robert Wilson).

High rate of mobility in industrial society decreases the frequency and intimacy of contacts between members of the kin which in turn weakens kinship ties. This movement of people has created to various problems such as decline of consanguine family, economic and technological changes, changes in the position of women, crumbling of patriarchal foundation, and reduction in the size of family, changes in the central social functions of the family, increasing rate of divorce and decreased control of marriage bonds. Therefore, industrialisation has played a great role in the disorganisation of functional and structural aspects of family life.

***Review of existed literature***

1. Shankar A, Kumar R, (2010) report from their study in Rajasthan Ambuja cement industrial plant that there is significant relation of cement industrial pollution and the migration of people living around this plant. Industrialisation has forced the people to leave their place of birth and move to safer areas in order to protect themselves from various kinds of industrial pollutions. Thus the link between kinship and the occupational structure has been broken down. This study revealed that 27 percent of population have been migrated due to industrial based environmental hazardous pollutions. People living these areas are affected some serious health problems and they have chosen for vacating such zones and which results break down of kinship ties. The evaluation of morbidity and mortality and cost analysis shows that avoidance cost is 29% of total health damage cost which results seriously on the health of the individual and his/her family life. All the varieties of biodiversity are affected due to cement industrial pollutions. It also affects human health in a number of ways.

2. Marshall, -F and Wilding, -Z (2003) discusses how cement industrial pollution contaminates the quality of good air and pollutes it adversely. Cement industrial emission damages crops, forests and human health. The local people have to start migrations to other places which results breakdown of family ties. This movement of people has given the origin of various problems such as involuntary family displacement, reduction in the size of family, loss of traditional values and customs, loss of kinship relations, breakdown of family ties, loss of informal social behavioural control, family insecurity, mental and emotional disturbance. Therefore, industrialisation has played a great role in the disorganisation of functional and structural aspects of family life.

### *Statement of the problem*

The investigator while scanning the literature found that no study have been conducted on the current problem. The investigator found that the entire field is unexplored and after making in-depth study of different surveys, journals and other research inputs, it is found that no systematic study have been conducted on the problem which could objectively study the impact of industrialisation on family life disintegration of the people residing around the selected cement industrial plant in the study area. So, therefore taking these points in our mind, we have chosen this problem in our current research paper which is entitled above. We hope this research will be useful for the planners and policy makers for framing several policies and schemes for improving the family relations of people living around the study cement industrial plant. We have hope that this research will provide us present family conditional structure of the people residing in the study area.

### *Objectives of the study*

1. To study the impact of cement industrial plant on age wise family relations among the respondents.
2. To study the impact of cement industrial plant on caste wise family relations among the respondents.
3. To study the impact of cement industrial plant on education wise family relations among the respondents.
4. To study the impact of cement industrial plant on income wise family relations among the respondents.

### *Hypotheses of the study*

1. There is no impact of cement industrial plant on the age wise family relations among the respondents.
2. There is no impact of cement industrial plant on the caste wise family relations among the respondents.
3. There is no impact of cement industrial plant on the education wise family relations among the respondents.
4. There is no impact of cement industrial plant on the income wise family relations among the respondents.

### *Methodology*

In order to study the disintegration changes that occurred in the family life due to industrialisation, JK Cements Ltd. Khrew in district Pulwama, Kashmir is selected for the purpose of current research paper as far as its relation is concerned with changing family relationships. The investigator has followed the Normative Survey method that is found to be most suitable method for gathering the essential, reliable and required data.

The study was purposively conducted in the two villages namely Noginder and Bathen of the district Pulwama of J & K state. The present study is based on the descriptive method of research design to evaluate the changes that occurred in the family relationships due to establishment of this cement industrial plant in the study area. The

study is based on both primary as well as secondary data. The primary data were gathered with the help questionnaire schedule and interview method and the secondary data were collected from the various sources like journals, internet and official governmental departments.

### *Sampling procedure*

In the study area there are total registered population is 995 i.e. 588 in Noginder village and 407 in Bathen. Out of these registered population, the researcher has selected 20 percent households i.e. 199 respondents by applying the stratified random sampling technique for the purpose of data collection.

### *Data Analysis and Interpretation*

The collected data has been analyzed by coding and tabulating. Simple percentage and Chi-Square test were applied to analyze the data regarding the disintegration changes occurred in the family life by the selected Cement industrial plant in the study area with an intention to draw a logical conclusion.

***Table-1 Age wise Distribution of the Respondents***

| Age Group | No. of Respondents | Percentage |
|---|---|---|
| Below-30 Years | 43 | 21.60% |
| 30-40 Years | 85 | 42.71% |
| Above – 40 Year | 71 | 35.67% |
| **Total** | **199** | **100%** |

Table 1 presents data on the age wise distribution of the respondents. It could be noted that out of the total 199 respondents, 42.71 percent of the respondents are belong to the age group of 30-40 years and 35.67 percent of them fall in the age group of 40 years above. The remaining 21.60 percent of them belong to the age group of below 30 years. It is clear from the above table that the majority of the responds are in the age group of 30-40 years.

***Table-2 Caste wise Distribution of the Respondents***

| Caste Group | No. of Respondents | Percentage |
|---|---|---|
| General caste | 101 | 50.75% |
| Backward caste | 65 | 32.66% |
| Most Backward caste | 33 | 16.58% |
| **Total** | **199** | **100%** |

Table 2 indicates the caste wise distribution of the respondents. It could be noted that out of the total respondents, 50.75 percent of them belong to general castes and 32.66 percent of them belong to backward castes. Only 16.58 percent of the respondents belong to most backward castes. It could be seen from the table that most of the respondents belongs to General castes and backward castes.

***Table-3 Educational wise Distribution of the Respondents***

| Educational level | No. of Respondents | Percentage |
|---|---|---|
| Illiterate | 76 | 38.19% |
| School level | 61 | 30.65% |
| College level | 44 | 22.11% |
| Diploma/Technical | 18 | 9.04% |
| **Total** | **199** | **100%** |

Table 3 Shows that data on education wise distribution of the respondents. It could be noted that out of the total respondents, 38.19 percent of the respondents are illiterates and 30.65 percent of them have school level education. 22.11 per cent of them have college level education and only 9.04 percent of them have diploma in technical education. It could be seen that mostly respondents are illiterates.

***Table-4 Income wise Distribution of the Respondents***

| Monthly Income | No. of Respondents | Percentage |
|---|---|---|
| Up to 5000 | 61 | 30.65% |
| 5000-10000 | 72 | 36.18% |
| 10000-15000 | 39 | 19.59% |
| Above 15000 | 27 | 13.56% |
| **Total** | **199** | **100%** |

Table 4 presents the data on the income wise distribution of the respondents. It could be observed that out of the total respondents, 36.18 percent of them earn between Rs. 5000-10000 per month and 30.65 percent of them earn up to Rs. 5000 per month. 19.59 percent of them earn between Rs. 10000-15000 and 13.56 percent of them earn more than Rs. 15000 per month. It is clear from the above discussion that majority of the respondents have income below Rs. 10000 per month.

***Table-5 Age wise 199 Respondents Opinion about the Impact of Cement Industrial Plant on the Family life disintegration***

| Age Group | No. of Respondents | | | | Total |
|---|---|---|---|---|---|
| | Blood Relations | Marital Relations | Economic Relations | Cultural Relations | |
| Below 30 | 6 (13.04%) | 13 (22.03%) | 15 (23.07%) | 8 (27.58%) | 42 (21.10%) |
| 30-40 | 14 (30.43%) | 35 (59.32%) | 22 (33.84%) | 16 (55.17%) | 87 (43.71%) |
| Above 40 Years | 26 (56.52%) | 11 (18.64%) | 28 (43.07%) | 5 (17.24%) | 70 (35.17%) |
| Total | 46 (23.11%) | 59 (29.64%) | 65 (32.66%) | 29 (14.72%) | 199 (100%) |

$X^2$ Calculated value: 22.85

Degrees of freedom: 6

$X^2$ Table value 5%: 12.6

The variations in the levels of Cement Industrial Pollution between different age groups such as those who are below 30 years, those who are 30-40 years, and those who are above 40 years among respondents are defined in hypothesis-1, taken up and its results are shown in the table-5, as an outcome of Chi-Square model test. From the results of this Chi-Square model shown in table-5, it can be inferred that the $X^2$ Calculated value: 22.85 corresponding to Cement Industrial Pollution on each different considered Age group is found greater than the $X^2$ Table value 12.6 at 5 percent level. Hence, hypothesis-1 is rejected at 5 percent level of significance. This result clearly shows that there exists significant variation in the Cement Industrial Pollution and family life changes on different Age groups.

***Table-6 Caste wise 199 Respondents Opinion about the Impact of Cement Industrial Plant on the Family life disintegration***

| Caste Group | No. of Respondents | | | | Total |
|---|---|---|---|---|---|
| | Blood Relations | Marital Relations | Economic Relations | Cultural Relations | |
| General Caste | 10 (21.73%) | 29 (50%) | 36 (55.17%) | 14 (42.30%) | 89 (44.72%) |
| Backward caste | 16 (34.78%) | 22 (36.53%) | 20 (31.03%) | 5 (19.23%) | 63 (31.65%) |
| Most backward caste | 20 (43.47%) | 8 (13.46%) | 9 (13.79%) | 10 (38.46%) | 47 (23.61%) |
| Total | 46 (23.11%) | 59 (29.64%) | 65 (32.66%) | 29 (14.72%) | 199 (100%) |

Calculated value: 24.34

Degrees of freedom: 6

Table value 5%: 12.6

The variations in the levels of Cement Industrial Pollution between different Caste groups such as those who are General Castes, those who

are Backward Castes, and those who are Most Backward Castes among respondents are defined in hypothesis-2, taken up and its results are shown in the table-6, as an outcome of Chi-Square model test. From the results of this Chi-Square model shown in table-6, it can be inferred that the $X^2$ Calculated value: 24.34 corresponding to Cement Industrial Pollution on each different considered Caste groups is found greater than the $X^2$ Table value 12.6 at 5 percent level. Hence, hypothesis-2 is rejected at 5 percent level of significance. This result clearly shows that there exists significant variation in the Cement Industrial Pollution and family life changes on different Caste groups.

***Table-7 Education wise 199 Respondents Opinion about the Impact of Cement Industrial Plant on the Family life disintegration***

| Education level | No. of Respondents | | | | Total |
|---|---|---|---|---|---|
| | Blood Relations | Marital Relations | Economic Relations | Cultural Relations | |
| Illiterate | 22 (47.82%) | 29 (49.15%) | 14 (21.53%) | 4 (13.79%) | 69 (34.67%) |
| School level | 15 (32.60%) | 8 (13.55%) | 27 (41.53%) | 14 (48.27%) | 64 (32.16%) |
| College level | 5 (10.86%) | 17 (28.81%) | 20 (30.76%) | 5 (17.24%) | 47 (23.61%) |
| Diploma/Technical | 4 (8.69%) | 5 (8.47%) | 4 (6.15%) | 6 (20.68%) | 19 (9.54%) |
| Total | 46 (23.11%) | 59 (29.64%) | 65 (32.66%) | 29 (14.72%) | 199 (100%) |

Calculated value: 33.05

Degrees of freedom: 9

Table value 5%: 16.9

The variations in the levels of Cement Industrial Pollution between different Educational level groups such as those who are Illiterates, those who have School level education, those who have College level education and those who have Technical education among respondents are defined in hypothesis-3, taken up and its results are shown in the

table-7, as an outcome of Chi-Square model test. From the results of this Chi-Square model shown in table-7, it can be inferred that the $X^2$ Calculated value: 33.05 corresponding to Cement Industrial Pollution on each different considered Educational groups is found greater than the $X^2$ Table value 16.9 at 5 percent level. Hence, hypothesis-3 is rejected at 5 percent level of significance. This result clearly shows that there exists significant variation in the Cement Industrial Pollution and family life changes on different Educational groups.

***Table-8 Income wise 199 Respondents Opinion about the Impact of Cement Industrial Plant on the Family life disintegration***

| Monthly Income (In. Rs) | No. of Respondents | | | | Total |
|---|---|---|---|---|---|
| | Blood Relations | Marital Relations | Economic Relations | Cultural Relations | |
| Up to 5000 | 21 (45.65%) | 25 (42.37%) | 11 (16.92%) | 5 (17.24%) | 62 (31.15%) |
| 5000-10000 | 12 (26.08%) | 18 (30.50%) | 34 (52.30%) | 12 (41.37%) | 76 (38.19%) |
| 10000-15000 | 7 (15.21%) | 11 (18.64%) | 16 (24.61%) | 5 (17.24%) | 39 (19.59%) |
| Above-15000 | 6 (13.04%) | 5 (10.86%) | 4 (6.15%) | 7 (24.13%) | 22 (11.05%) |
| Total | 46 (23.11%) | 59 (29.64%) | 65 (32.66%) | 29 (14.72%) | 199 (100%) |

Calculated value: 25.41

Degrees of freedom: 9

Table value 5%:16-9

The variations in the levels of Cement Industrial Pollution between different Monthly Income groups such as those who have up to 5000, those who have 5000-10000, those who have 10000-15000 and those who have above 15000 among respondents are defined in hypothesis-4, taken up and its results are shown in the table-8, as an outcome of Chi-Square model test. From the results of this Chi-Square model shown in table-8, it can be inferred that the $X^2$ Calculated value: 25.41

corresponding to Cement Industrial Pollution on each different considered Monthly Income groups is found greater than the $X^2$ Table value 16.9 at 5 percent level. Hence, hypothesis-4 is rejected at 5 percent level of significance. This result clearly shows that there exists significant variation in the Cement Industrial Pollution and family life changes on different Monthly Income groups.

### *Findings of the study*

1. From the analysis of the data, the study has found that majority of the age wise respondents stated that their family life have been affected either blood relationships, marital, economic or even cultural relationships due to the establishment of the cement industrial plant in their residential zone. It is inferred from the table 5 that more than 56 percent of respondents in the age group of above 40 years have stated that their blood relationships have been disintegration, more than 59 percent respondents in the age group of 30-40 have stated that their marital relations have been disintegrated, 43.07 percent respondents in the age group of above 40 years have affected by economic relations and more than 55 percent respondents in the age group of 30-40 have affected by cultural relations due to the impact of cement industrial plant.

2. From the analysis of the data, the study has found that majority of the caste wise respondents have stated that their family life either blood relationships, marital, economic or even cultural relationships have been disintegrated due to the establishment of the cement industrial plant in their residential zone. It is inferred from the table 6 that more than 43 percent of respondents in the general caste group have stated that their blood relationships have been disintegrated, more than 29 percent respondents in the backward caste group have stated

that their marital relations have been affected, 55.17 percent respondents in the most backward caste group have been affected by economic relations and more than 42 percent respondents in the general caste group stated that their cultural relations have disintegrated due to the impact of cement industrial plant.

3. From the analysis of the data, the study has found that majority of the educational wise respondents have stated that their family life has been disintegrated either blood relationships, marital, economic or even cultural relationships due to the establishment of the cement industrial plant in their residential zone. It is inferred from the table 7 that more than 47 percent of respondents in the illiterate group have been affected by their blood relationships, more than 49 percent respondents in the illiterate group have stated that their marital relations have disintegrated, 41.53 percent respondents in the school level group have stated that their economic relations have affected and more than 48 percent respondents in the school level group have affected by cultural relations due to the impact of cement industrial plant.

4. From the analysis of the data, the study has found that majority of the monthly income wise respondents have stated that their family life has been disintegrated either blood relationships, marital, economic or even cultural relationships due to the establishment of the cement industrial plant in their residential zone. It is inferred from the table 8 that more than 45 percent of respondents in the up to 5000 income group have stated that their blood relationships have affected, more than 42 percent respondents in the up to 5000 income group have affected by marital relations, 52.30 percent respondents in the 5000-10000 income group have affected by economic relations and more

than 41 percent respondents in the 5000-10000 income group have affected by cultural relations due to the impact of cement industrial plant.

### *Conclusion*

The analysis concludes that Khrew Cement Industrial Plant have disintegrated the family life of the respondents in the study area. The study has shown that the family life either blood relationships, marital relations, economic relations or even cultural relations have been affected tremendously due to the harmful impacts of cement industrial plant in the study area. It is inferred from the study that many families have been migrated from the industrial zone to another zones where they feel themselves secure from industrial pollutions. It is also inferred from the study that number of workers has been migrated from various rural areas to this industrial zone in order to get industrial jobs, so that they will enhance their livelihood. It is clear from the study that whether a family migrated from their birth place to another place in order to security of pollution free environment or even a worker migrated from rural area to industrial area in search of jobs, both in cases the structure and function of family life has been affected.

### *References*

1. Mohan R.G; Sambanaik, A; Sri nivasnaik, L and Jagadishnaik, M (2012): The Effect of Cement Dust Exposure on social relationships of family life, Journal of Advancements in Research and Technology Research; 33:379- 385.
2. Eliot and Merrill, F.B.O, Merino, I.A, Ibrahim, I.J.A and Nooks, C.H. (2008): The Effect of Cement Dust Exposure on cultural relationships among the community members of Nigeria. Nigerian Journal of Psychological Sciences; 23 (1- 2): 111 –114.

3. Robert Wilson., Bravest, M., Moen, B. and Yost, M. (2005): Variability in dust exposure in a cement factory in Calcutta and its hazardous impacts on socio-cultural life styles of family life. Annual Occupational Hygiene 49(6):511-519.

4. Noor, H., Yap, C.L., Zolkepli, O. and Faridah, M. (2000): Effect of Exposure to Dust on family Function of workers in cement industrial factories. Med. J. India; 55(2): 51-57.

5. Laraqui, C.H., Laraqui, O., Rahhali, A., Harourate, K., Tripodi, D., Mounassif, M. and Yazidi, A.A. (2001): Prevalence of family Problems in Workers at two Manufacturing Centres of Ready-made Concrete in Morocco. I nt. J. Tuberc. Lung Di s; 5(1 1):1051-1058.

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN : 2277-7881; IMPACT FACTOR – 4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# SOCIAL MEDIA GIVES VOICE TO VOICELESS DALITS IN INDIA: AN ANALYSIS

**S. Venkateswarlu**
Research Scholar
Dept. of Journalism & Mass Communication
Acharya Nagarjuna University
Guntur, AP.

**I.Tarakeswara Rao**
Research Scholar
Dept. of Journalism & Mass Communication
Acharya Nagarjuna University
Guntur, AP.

## Abstract

The media, the fourth pillar of a democratic nation, has the responsibility to safeguard the rights of the socially-economically deprived sections including the Dalits. Social media has enormous power to bring social equality to the people neglected in the society. Internet has been widely used by the people living on the margin of the society as an alternative to the mainstream media. In India, Dalit's comprise of more than 200 million. But their socio, political and economic issues noticed by the mainstream media are miniscule in numbers. Thus, there is a need for the educated Dalit population to find an alternative media through which they can express and respond with outside world. In this scenario, social media has proved to be an avenue for educated Dalits. This paper analyses in detail about how social media platform such as Dalit websites, social media such as blogs are an alternative media to verbalize the issues of Dalits in India. This paper outlines the new opportunities for Dalits in the cyber space online networks which accommodates the voice of the subaltern people and also maps the approaches of main stream media towards the issues of Dalits.

**Keywords:** Dalits, Social Media, Empowerment, Alternative Media,

## Introduction

Since social networking is free (to a certain extend) and open for all unlike theprint and visual media, Dalits find it as a viable and useful media. It is nearlyimpossible for Dalits to start and run a media firm, but can easily login to anysocial media site and give expression to his/her thoughts.Media has been under severe criticism from Dalit reformers for being manuwadi or casteist. Kanshi Ram, the founder of BahujanSamaj Party (BSP) reiterated not to trust the upper caste media and encouraged for a voice for Dalits in the media (Ninan, 2007). Ever since the evolution of mass communication is it print or audio-visual media, Dalits tried to run their own media on a par with the rest of the media industry. But, owing to many factors they could not survive. The Hindu,a daily English newspaper, celebrated its 125th anniversary on September 2003.Parayan, a Dalit magazine, which was started by the Dalit scholar Rettaimalai Srinivasan in the same year as that of The Hindudoes not find its existence today. Similarly many magazines were started by Dalit activists, but they eventually ousted as they could not withstand the caste politics (Ravikumar, 2007). Furthermore, economic conditions and caste supremacy did not allow them to sustain in the competitive media market. One of the reasons as to why the Dalit media is not able to perpetuate its existence is the domination of the upper caste media. In India, most of the communication has been elite oriented and upper class monopolized in the field of communication. No wonder the Indian media was ranked number one in the hall of shame for being caste apartheid (Prasad, 2006).

Most of the Indian broadcast media are owned by business houses who hail from upper caste. So, it is not surprising to note that they gave least preference to Dalit issues or recruited Dalits as journalists in their media. Thus, radio, television, cinema and newspapers were completely inaccessible media for Dalits as there were no Dalits to represent their

issues. This conventional belief has been acknowledged by the researcher Robin Jeffery. The excerpts of his notes articulate that, there were almost none in 1992, and there are almost none today: Dalits in the newsrooms of India's media organization. He calls this deplorable situation of the exclusion of Dalits in the mainstream media as the betrayal of the constitutional guarantees of equality and fraternity (Jeffery, 2012).

Furthermore, Balasubramainam (2011) in his research paper narrates his experience where he was denied to get placed in one of the Tamil dailies as a journalist after having been enquired about his caste. In India, nearly 25 percent of the population makes up of Scheduled Castes and Scheduled Tribe, but we find news about them hardly appearing in the mainstream media. Though international media have picked up the discrimination issues and started taking about them, Indian media has not yet come openly to champion Dalits (The Hindu, April 9, 2012). In a recent online survey conducted among 210 respondents who access Dalit websites and blogs, the perception of mainstream media towards Dalit issues was studied. The diagram on the study evinces that the mainstream media is not well perceived by the majority of the educated Dalit (Kumar,S. 2014).

Varadarajan (2006) in his article on Caste matters in the media writes about his experience on how the story of atrocity committed on Dalit students was not heeded by the media. He narrates that only after a lot of struggle he managed to publish only a part of the story in a cut and mutilated form, a full month after the Dalit students began their dharna. Further, he says that absence of Dalits in the media industry is one of the reasons as to why there are no reports about Dalits in the Indian media (Varadharajan, 2006).

In a talk show called Media Manthan on Dalit and media, Chawla (2012), Editorial Director of The New Indian Express accepts the

absence of Dalits in the media. But he defends in the show that the caste bias in the media is not premeditated or any conspiracy hatched to avoid Dalits from entering the media industry. This is not an acceptable statement as one reads Balasubramanian's experience about his deliberate rejection by the editor of a Tamil newspaper in his research paper (Balasubramaniyam, 2011). This sort of attitude toward Dalits is nothing new from the fact that no Dalit journalists were allowed to enter the media world. In 1996, B.N Uniyal, a senior journalist in the pioneer, was confronted by a foreign journalist who wanted to get an opinion from a Dalit journalist over the reported dispute between Kanshi Ram, the founder of BSP and a few journalists. In an effort to find a Dalit journalist and to help the foreign journalist he started searching for a Dalit journalist. Faced with an utter failure in finding a Dalit journalist he writes, Suddenly I realized that in all the 30 years I had worked as a journalist, I had never met a fellow journalist who was a Dalit; no, not one.

**Social Media is Alternative Media for Dalits**

In the social networking sites Dalits find their peer groups from all over India
andeven from abroad. Sharing the common concerns and rising theoreti cal and philosophical and sociological questions against casteist discriminations are common features of Dalit interventions in the social networking sites. It isimportant to note that the thoughts of Ambedkar are given much importance inthe arguments of Dalits to make their points. Ambedkar and his ideology havegreat impact on the Dalits in India and this factor is a pointer to the possibility of an emerging common consciousness among the Dalits in this information technology is that the past decades.

Even though the postings, discussions and responses in the social networks byDalits contain their pain and pathos and the anguish and

anger against theinhuman caste system, they do step out of the emotional straightjacket andposition themselves to a level of quality discussion and debate with a theoreticalapproach backed with relevant data. Presence of many Dalit students who excel in their respective field of education, activists, writers and critics in the socialnetworking sites makes a perfect arena to present their case, mak e perfect counter arguments, and thus redesign the trajectory of the discussion in the favour of the Dalits. This does not mean that they do not face challenges.

Print and visual media realize that the social networking sites are becomingstronger and they cannot turn their face from the discussions taking place in thisnew media. Hence, print and visual media nowadays quote from the postings inthe visual media and even publish the photos and other materials from the socialnetworking sites. This gives space for the Dalit issues too to an extent. Utilizing this possibility is really a challenge for the Dalits. The accessibility of socialnetworking even in the mobile phones makes things easier and viable for theyoung Dalits. Coping with the situation to bring casteist discrimination in publicdiscourse is a challenge, which should be continually taken up by the Dalits.

Amrit Dhillon (2016),all around the world, social media has given a voice to anyone who wants to speak. In India, it has empowered the country's most oppressed group, dalits (formerly known as untouchables), to speak their minds, without fear of punishment, for the first time in history.An entire ecosystem of blogs, websites, online forums and social media groups now voice the sentiments of India's approximately 165 million dalits, smashing the silence that was imposed on them by the caste system.In centuries past, if dalits expressed views that criticized the caste system or social order imposed on them by higher castes, they would be thrashed or killed. For the past 60 years, the government has tried to eradicate the caste system

through affirmative action but has largely failed. Most dalits still cannot escape their fate.

The media, which in a democracy should give space to the views of every group, is dominated by Brahmins and other upper castes. Survey after survey has found not one dalit in any Indian newsroom. In 2006, the Centre for the Study of Developing Societies found no dalit among its list of the 315 most influential journalists (70 per cent of them were upper-caste Hindu men).

Dalits are not only discriminated against socially and excluded from the media, but also the issues that concern them are not amplified by the media. All that is changing, with their success in carving out a distinct presence on social media. There, they can give vent to their feelings and voice their opinions without fear of an upper-caste mob arriving at their doorstep to attack them.A new universe has opened up in which dalit issues are debated. The forums range from Round Table India which conducts an online, anti-caste debate; to Dalit Camera, which films debates and interviews and loads them onto YouTube. Dalits are active on Facebook and Twitter and are quick to react to any slight or act of discrimination.

This social media mobilization has led to an eruption of opinions and self-expression. All the online debates in this vast dalit forum are helping dalits to formulate arguments and theories that enable them to understand how they can deal with the caste system and the cruelties of Indian mainstream society.As the home page of the Round Table website says: “Both the mainstream and so-called alternative media in India are controlled by the same social forces. When others interpret the world for you, can you change it?”By allowing dalits to highlight issues and crimes, this social-media activity is also forcing mainstream media to pay attention to some of them. If a crime takes place against a dalit, there will be so much information, and photographs and videos,

about it on dalit forums that it is difficult for the media to ignore such stories, as it always has in the past.

For dalit intellectual and columnist Chandra Bhan Prasad, said that the dalit mobilization on social media is also breaking the stereotypes cherished for centuries by the high castes. "They used to say dalits can't write, they are not creative, they can't argue, they are not clever. But now they see dalits writing about wild life and technology, writing poetry, debating foreign policy it's showing the upper castes that dalits are not so different from them after all "Social media is to us today what the trains were then. For the first time, dalits feel free. For the first time, the old social control which the upper castes exercised over dalits has collapsed.

Chopra (2006) in his study on virtual identity in online Dalit discourse, talks about the technology i.e., internet which has enabled the emergence of a new mode of representing collective identity which he calls it as Global primordially. He goes on to say that one of the main reasons as to why the number of Dalits found online remains very low is the domination of upper caste in the digital technology. Omvedt opines Upper- caste dominance in the profession, business, culture and the world of computer technology. She continues to say that private sectors in IT firms are reluctant in adopting affirmative action policies to increase Dalit presence and Indian cyberspace is populated with Indian elite (Omvedt, 2001). Though there exists digital divide among those at the bottom of the class system, there is significant number of individuals, social and transcendental (religious) of the few thousand mostly, if not exclusively, male Dalits from this population who have acquired access to internet (Tirumal&Tartakov, 2011). Further they discuss the potential of internet to Dalits as it makes visible of their plight to other castes from Dalit point of view as they never could before, while some Dalits have been allowed to see and learn from the ruling classes heretofore beyond their view. More important, Dalits

have found a means of communicating with each other beyond the control of others. Among other factors such as shelter, economic livelihood, basic education, and unemployment; lack of knowledge in English prevents Dalits to access internet. Only a fraction of this vast socially disenfranchised urban and rural community has little presence in the public sphere. They are composed of almost exclusively of college-educated men with government job. As most of the Dalits speak only local language, this small segment of Dalits has taken up the English language for the discourse over the internet. Thus internet creates a platform for the disenfranchised to communicate with the people in the world and to have negotiation with the global capitalist regime. We find Dalit websites though few, have been very powerful in defending the rights of Dalits and articulating the discriminatory practices based on caste. Most of these sites are either run by Dalit activists or Dalit organization (Tirumal, 2008).

MeenaKandaswamy, a Dalit activist and writer writes in her websites: But, the democracy to speak up and speak out ensured that I was back to blogging again. Big media houses which own the major publications rarely give opportunity to Dalit (ex-untouchable) writers, and there's an absence of Dalit/anti-caste writers who write in English. The elitist writers want to write the feel-good stuff, India Shining myths, and that's the work that gets into print. So, I wanted to tap the power and enormous outreach of the internet: how anyone can write and be read/heard in the virtual space. I was not writing because anyone was commissioning me, I didn't have to follow other people's diktats, I could speak my mind. Google and tagging ensure that I can get heard without having my own column in any newspaper. Sometimes it helped me bring some happenings to light such as the recent inside story of Dalit students being beaten up at a law university in Chennai (the mainstream media merely reported it as a clash|| at first) and so on. Hugo Gorringe a senior lecturer in Sociology, University of Edinburgh

and author of 'Untouchable Citizens: The Dalit Panthers and Democratisation of Tamilnadu writes about the role of Dalit websites and blogs as an alternative media: It is quite common to see an article circulated through Facebook, on blog and websites together with an analysis that highlights the bias within that piece or offers an alternate reading. In that sense Dalit blogs and sites act as a sort of counter-public. With proliferation of new media technologies and the increasing embourgeoisment of newly educated Dalit-beneficiaries of post-independence affirmative action policies of successive government - Dalit activism is now increasingly web-based regularly updated websites such as www.ambedkar.org and others keep the world informed of the success and vicissitudes of the many Dalit battles against entrenched upper-caste hegemony in south Asia (Ganguly, 2005).

Among a number of Dalit websites, www.roundtableindia.co.in is a news and information portal championing for Dalits. The online survey conducted on Dalit websites and blogs reveals the reasons for Dalits and Dalit activists for accessing Dalit online media. The findings in the below bar diagram divulge that majority of the respondents of the online survey use it as an alternative media either to advocate Dalit issues or to associate with the rest of the Dalit population (Kumar.S, 2014).

Ashok Bharti, said that chairman of the National Confederation of Dalit Organisations (NACDOR). "If any incident happens anywhere, it is on my Facebook page in five minutes. It's better than a wire service, though the stories are often raw.BathranRavichandran, said that who founded it, says that social media, with the many perspectives it offers, has "broadened the views and values" of Dalit activists around the country. Social media only supplements, in a small way, the grassroots work that goes on around the country.

BharathanMeanwhile, groups like NACDOR prefer to engage with mainstream media and institutions, and use social media for direct access and advocacy. So does the Ambedkar-Periyar Study Circle (APSC) at IIT Madras, which has a vocal social media presence. AkhilBharathan of APSC thinks that caste, as an all-encompassing framework of oppression, also compels one outwards, to think of gender, class, and minority justice, and to form alliances. While these voices may now be a "counter public", drowned out in the din of powerful interest groups, the "ultimate aim is to be the public.

## Conclusion

In India more than quarter of the population comprises of Dalits. In the past, Dalits have been neglected and discriminated by the mainstream media. But now, the scenario is gradually changing with more and more educated Dalits entering into the media industry. Though, Dalits entry into the mainstream media can be viewed positively, the kind of position they occupy in the media industry is not applaud able. Only in recent days, the plights of Dalits have been noticed by the international media and also by the Indian media. Besides, the evolution of internet in India has become a great boon to Dalits, particularly to educated Dalits. With immense potentials, internet has paved way for Dalits to have their own media to speak and discuss the issues concerning Dalit community freely and openly. Though the mainstream media gives coverage Dalit issue now and then, they are miniscule in number. There are mammoth problems unnoticed and uncared by the mainstream media. In this scenario, Dalits are making use of this new medium to speak for them. Due to the negligence of the mainstream media in representing Dalit issues. Dalits have taken shelter under the Social media like online forums, blogs, Facebook, Twitter, etc. Majority of the Dalit activists agree to the fact that internet like websites, online groups, forums and social networking sites as blogs and Facebook play the role of alternative media. Several studies have cited that Dalit

activists view internet as the media, enabling and facilitating access and participation by the members of the community and the channel of communication for the stigmatized community. Further, a Social Media considered as alternative media which can stand on par with the mainstream media and can offer a counter–hegemonic representation of Dalits.

**References**

Amrit Dhillon, (2016).How social media is empowering India's dalitsthe Globe and Mail

Balasubramaniam, J.(2011). "Dalits and Lack of Diversity in the Newsroom." Economic and Political Weekly 46.11

Chopra, Rohit,(2006). "Global primordialities: Virtual identity politics in online Hindutva and online Dalit discourse." New media & society 8.2: 187-206.

Ganguly, Debjani. (2005). Caste, Colonialism and Counter-modernity: Notes on a Postcolonial.

Jeffrey, Robin(2003). "India's Newspaper Revolution capitalism, politics, and the Indian language press, 1977-99."

KumarS. (2014). Dalits and alternative media: a study on dalits' engagement in articulation of their voices in the indian blogs and web portals, Unpublished doctoral dissertation, Periyar University, Salem.

Mehta V. (2014). YouTube channel becomes rallying point for India's Dalits**,** BBC. Retrieved fromhttp://www.bbc.co.uk/news/world-asia-india-25502849

Ninan, S. (2007). Headlines from the heartland: Reinventing the Hindi public sphere. Sage.

Omvedt, G. (2009). Untouchables in the World of IT.

Prasad, Chandra Bhan. (2001). Body language of the Varna media.

Ravikumar&Rajan, Nalini, ed. (2007). 21st Century Journalism in India, Sage.

Thirumal, P., &Gary Michael Tartakov(2011). "India's Dalits search for a democratic opening in the digital divide." International xploration of technological equity and the digital divide: Critical, historical and social perspectives: 20-39.

Thirumal, P. (2008). Situating the new media: Reformulating the Dalit question. In R. Gajjala and V. Gajjala (Eds.), South Asian technospaces, Digital Formations, 36, New York: Peter Lang Verlag.

Varadarajan, Siddharth(2006). "Caste matters in the Indian media." The Hindu.

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN : 2277-7881; IMPACT FACTOR – 4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# POLARIZABILITY AND OPTICAL BASICITY OF $SM^{3+}$ IONS DOPED ZINC LITHIUM BISMUTH BORATE GLASSES

**S.L.Meena**
Ceremic Laboratory
Department of Physics
Jai Narain Vyas University
Jodhpur (Raj.) India

## Abstract

Glass of the system: (25-x) $Bi_2O_3$:20$Li_2O$:20ZnO:35 $B_2O_3$: x$Sm_2O_3$. (Where x=1, 1.5,2 mol %) have been prepared by melt-quenching method. The amorphous nature of the glasses was confirmed by X-ray diffraction studies. The physical parameters like density, reflection loss, electronic polarizability, oxide ions polarizability have been evaluated. The value of electronic polarizability is found to be increased with increasing refractive index and decreasing energy gap. Theoretical optical basicity of the glasses is evaluated based on equation proposed by Duffy and Ingram. The metallization criterion has been calculated on the basis of refractive index. The decrease value of metallization criterion indicates that glass material is metalizing.

**Keywords**: Samarium based glass; Optical basicity; Polarizability; Metallization criterion.

## 1. Introduction

In recent years, rare earth doped glasses are found to be more useful materials for fiber amplifiers, sensors and solid state lasers[1-4].Among various glasses, borate glasses are excellent host matrices because boric oxide($B_2O_3$)acts as a good glass former and flux material[5]. Bismuth oxide contained host glass matrix improves chemical durability of the glass [6, 7]. Despite, the $Bi_2O_3$ is not a classical network former, it exhibits some superior physical properties

like high refractive index, high density and high Electronic polarizability [8-11].

Bismuth oxide ($Bi_2O_3$) based glasses for their high polarizability has fascinated much attention of glass researchers because of their nonlinear optical properties which have important for the development of optical information processing technology [12, 13]

Nonlinear optical (NLO) properties are monitored by electronic polarization of material in exposure of intense light beam which can be related to several properties of materials such as electro-optical effect and refractivity [14-16].

The aim of the present study is to prepare the $Sm^{3+}$doped bismuth borate glass with different $Sm_2O_3$concentrations and to study the effect of $Sm_2O_3$content on density, molar volume, refractive index, polarizability of oxide ions and optical basicity.

## 2. Experimental Techniques

### Preparation of glasses

The following $Sm^{3+}$doped bismuth borate glass samples (25-x) $Bi_2O_3$:20$Li_2O$:20ZnO: 35 $B_2O_3$: x $Sm_2O_3$ (where x=1, 1.5,2) have been prepared by melt-quenching method. Analytical reagent grade chemical used in the present study consist of $Bi_2O_3$, $Li_2O$, ZnO, and $B_2O_3$and $Sm_2O_3$. All weighed chemicals were powdered by using an Agate pestle mortar and mixed thoroughly before each batch (10g) was melted in alumina crucibles in silicon carbide based an electrical furnace.

Silicon Carbide Muffle furnace was heated to working temperature of $1060^0$C, for preparation of Zinc Lithium Bismuth Borate glasses, for two hours to ensure the melt to be free from gases. The melt was stirred several times to ensure homogeneity. For quenching, the melt was quickly poured on the steel plate & was immediately inserted in the muffle furnace for annealing. The steel plate was

preheated to100$^0$C.While pouring; the temperature of crucible was also maintained to prevent crystallization. And annealed at temperature of 360$^0$C for 2h to remove thermal strains and stresses. Every time fine powder of cerium oxide was used for polishing the samples. The glass samples so prepared were of good optical quality and were transparent. The chemical compositions of the glasses with the name of samples are summarized in Table 1

Table 1 Chemical composition of the glasses

| Sample | Glass composition (mol %) |
|---|---|
| ZnLiBiB (Sm0) | 25 $Bi_2O_3$:20$Li_2O$:20ZnO: 35 $B_2O_3$ |
| ZnLiBiB (Sm 1) | 24 $Bi_2O_3$:20$Li_2O$:20ZnO: 35 $B_2O_3$: 1 $Sm_2O_3$ |
| ZnLiBiB (Sm 1.5) | 23.5 $Bi_2O_3$:20$Li_2O$:20ZnO: 35 $B_2O_3$: 1.5 $Sm_2O_3$ |
| ZnLiBiB (Sm 2) | 23 $Bi_2O_3$:20$Li_2O$:20ZnO: 35 $B_2O_3$: 2 $Sm_2O_3$ |

ZnLiBiB (Sm) -Represents $Sm^{3+}$doped Zinc Lithium Bismuth Borate glass specimens

## 3. Result and Discussion

### 3.1. XRD Measurement

Figure 1 presents the XRD pattern of the samples containing show no sharp Bragg's peak, but only a broad diffuse hump around low angle region. This is the clear indication of amorphous nature with in the resolution limit of XRD instrument.

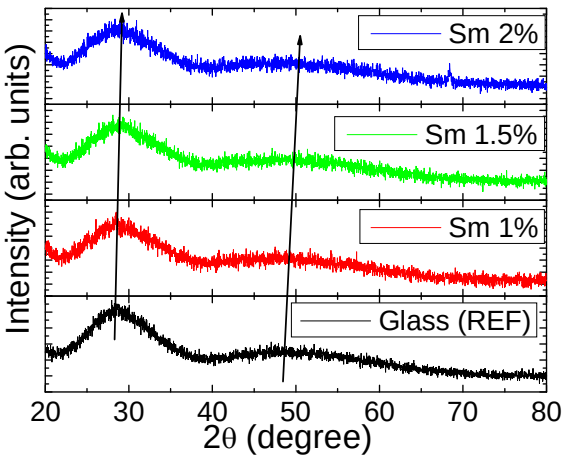



Fig. 1.X-ray diffraction pattern of $Bi_2O_3$: $Li_2O$: ZnO: $B_2O_3$: $Sm_2O_3$ glasses.

### 3.2. Physical properties

**Density measurement**

The density of all glasses was measured by using Archimedes principle with xylene as immersing liquid. The relation used is

$$\rho(gm/cm^3) = \frac{W_a}{W_a - W_b} \times \rho_b \qquad (1)$$

Where $W_a$ is the weight of glass sample in air, $W_b$ is the weight of glass sample when immersed in xylene and $\rho_b$ is the density of xylene (0.86gm/cm$^3$).

The molar volume of the glass samples can be calculated from following expression:

$$V_m = \frac{M_T}{\rho} \qquad (2)$$

Where $\rho$ is the density of the sample and $M_T$ is the total molecular weight of the multi-component glass system given by

$$M_T = X_{Bi2O3} Z_{Bi2O3} + X_{Li2O} Z_{Li2O} + X_{ZnO} Z_{ZnO} + X_{B2O3} Z_{B2O3} + X_{Sm2O3} Z_{Sm2O3} \quad (3)$$

Where $X_{Bi2O3}$, $X_{Li2O}$, $X_{ZnO}$, $X_{B2O3}$, $X_{Sm2O3}$ are the molar fraction of the constituent oxides and $Z_{Bi2O3}$, $Z_{Li2O}$, $Z_{ZnO}$, $Z_{B2O3}$, $Z_{Sm2O3}$ are the molar weights of the constituent oxides.

## Refractive index measurement

The refractive index were measured by using an Abbe refractometer with sodium vapor lamp as the light source emitting the light at a wavelength $\lambda$ of 589.3nm and having mono-bromonaphthalene as the contact layer between the sample and prism of the refractometer.

## Reflection loss

The reflection loss from the glass surface was computed from the refractive index using Fresnel's formula [17]

$$R_L = \left[\frac{(n-1)}{(n+1)}\right]^2 \quad (4)$$

Where n is the refractive index.

## Molar refraction

The molar refractivity of the glass samples were calculated using the formula which is well known as Volf and Lorentz-Lorentz formula [18]

$$R_m = \left[\frac{(n^2-1)}{(n^2+2)}\right] \times V_m \quad (5)$$

Where n is the refractive index of the glass sample, $V_m$ is the molar volume.

### Energy gap

According to Duffy the energy gap is given by [19]

$$E_g = 20\left(1 - \frac{R_m}{V_m}\right)^2 \qquad (6)$$

### Molar electronic polarizability

The molar electronic polarizability of the material can be calculated from following expression [20]

$$\alpha_m = \frac{R_m}{2.52} \qquad (7)$$

### Dielectric constant

The dielectric constant was calculated using refractive index of the glass [21]

$$\epsilon = n^2 \qquad (8)$$

Where n is the refractive index.

### Optical dielectric constant

The optical Dielectric Constant refractive index of the glass [22]

$$p\frac{dt}{dp} = (\epsilon\text{-}1) = n^2\text{-}1 \qquad (9)$$

Where $\epsilon$ is the dielectric constant.

### Electronic polarizability

The electronic polarizability was cal calculated using the formula [23]

$$\alpha_e = \frac{3(n^2 - 1)}{4\Pi A_V(n^2 + 2)} \qquad (10)$$

Where $A_V$ is the Avogadro number.

### Electronic polarizability of oxide ions polarizability

The Electronic polarizability of oxide ions has been calculated using the equation proposed by Dimitrov and Sakka[24]

$$\alpha_O^{2-(n)} = \left[\frac{R_m}{2.52} - \sum \alpha_i\right]\left(N_o^{2-}\right)^{-1} \qquad (11)$$

Where $\sum \alpha_i$ In the above equation is molar cation polarizability and $N_O^{2-}$ is the number of oxide ions in the chemical formula. The molar cation Polarizability ($\alpha$) values of $Li^+$,$B^{3+}$,$Zn^{2+}$,$Bi^{3+}$ and $Sm^{3+}$,ions are respectively $\alpha_{Li}$=.042 $\acute{}^3$, $\alpha_B$=.002 $\acute{}^3$ ,$\alpha_{Zn}$ =.283 $\acute{}^3$ ,$\alpha_{Bi}$=1.508 $\acute{}^3$ and $\alpha_{Sm}$= 2.435 $\acute{}^3$

### Ionic concentations

The ionic concentrations of the glass samples are determined using the following relation [25]

$$N\ (\text{ions}/\text{cm}^3) = \frac{(Avogadro's\ number)\ (glass\ density)}{(Average\ molecular\ weight\ )} \times (mol\%\ of\ rare\ earth) \qquad (12)$$

### Polaron radius

The polaron radius was calculated using the formula [26]

$$R_p = \frac{1}{2} \times \left(\frac{\Pi}{6N}\right)^{\frac{1}{3}} \qquad (13)$$

Where N is the ionic concentrations.

### Inter-ionic distance

Inter-ionic distance of the glass samples is given as [26]

$$R_i = \left(\frac{1}{N}\right)^{\frac{1}{3}} \qquad (14)$$

Where $R_i$ is the ionic concentrations.

**Field strength**

The field strength was calculated using the formula [27]

$$F\ (cm^3) = \left(\frac{Z}{R_p^{\ 2}}\right) \qquad (15)$$

Where Z is the thickness of the samples.

**Oxygen packing density**

The oxygen packing density of the glass samples were calculated using the following relation [28]

$$O.P.D. = n\left(\frac{\rho}{M}\right)\times 1000 \qquad (16)$$

Where ρ the density of desired glass samples, M is the molecular weight of the sample and n is the number of oxygen atoms in the composition.

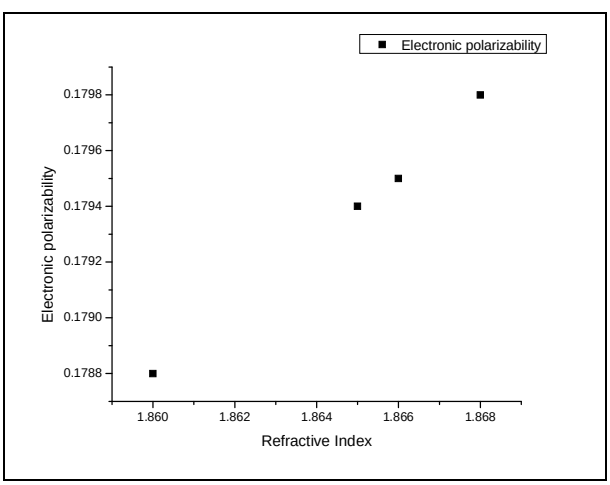


Fig.2. Varation of Electronic polarizability with Refractive Index.

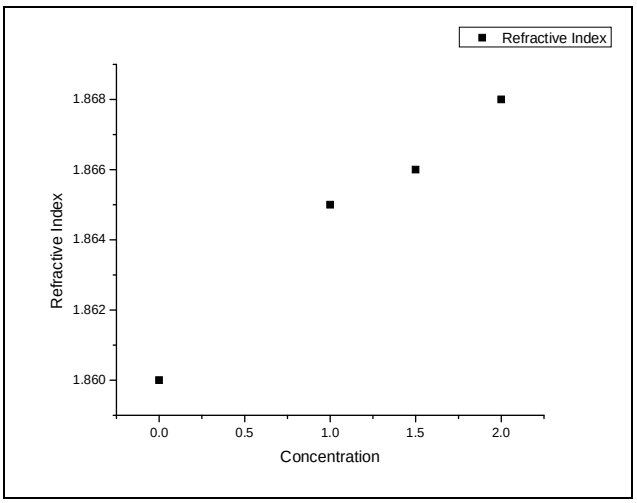



Fig.3. Varation of Refractive Index with Concentration.

Table 2: The physical and optical properties of $Bi_2O_3$: $Li_2O$: ZnO: $B_2O_3$: $Sm_2O_3$glasses

| Physical properties | ZnLiBiB(Sm 0) | ZnLiBiB(Sm 01) | ZnLiBiB(Sm 1.5) | ZnLiBiB(Sm 02) | ZnLiBiB(Pr 02) |
|---|---|---|---|---|---|
| Refractive Index (n) | 1.860 | 1.865 | 1.866 | 1.868 | 1.879 |
| Density (ρ) $\left(gm/cm^3\right)$ | 3.2 | 3.480 | 3.520 | 3.655 | 4.742 |
| Thickness(Z) | 0 .235 | 0.262 | 0.263 | 0.261 | 0 .245 |
| Average molecular weightM $(g)$ | 163.121 | 161.948 | 161.362 | 160.775 | 174.23 |
| Rare earth ions concentratio(N) | -- | 1.294 | 1.971 | 2.738 | 3.279 |
| Dielectric Constant (ϵ) | 3.46 | 3.478 | 3.482 | 3.489 | 3.531 |
| OpticalDielectricConstant $p\frac{dt}{dp}$ | 2.46 | 2.478 | 2.482 | 2.489 | 2.531 |
| MolarVolume ($V_{m)}$ $\left(gm/cm^3\right)$ | 50.975 | 46.537 | 45.841 | 43.988 | 36.742 |
| Reflection losses($R_L$ ) | 9.042 | 9.116 | 9.130 | 9.160 | 9.322 |
| Molar refractivity ($R_{m)}$ | 22.965 | 21.051 | 20.755 | 19.946 | 16.812 |
| Polaron radius $R_p\left(A^0\right)$ | -- | 3.698 | 3.214 | 2.880 | 2.692 |

| | | | | | |
|---|---|---|---|---|---|
| Interionic distance($R_i$) $(A^0)$ | -- | 9.177 | 7.976 | 7.148 | 6.731 |
| Electronic polarizability ($\alpha_e$) | 0.1788 | 0.1794 | 0.1795 | 0.1798 | 0.1815 |
| Field strength (F) | -- | 0.1916 | 0.2546 | 0.3147 | 0.3381 |
| Optical basicity ($\Lambda$) | 0.7834 | 0.7801 | 0.7785 | 0.7767 | 0.7842 |
| Molar polarizability($\alpha_m$) $\times 10^{-24} cm^3$ | 9.113 | 8.354 | 8.236 | 7.915 | 8.144 |
| Oxide ions polarizability ($\alpha_O^{2-(n)}$) $A^0$ | 3.769 | 3.429 | 3.356 | 3.207 | 3.142 |
| Oxygen packing density(OPD) | 43.12 | 47.274 | 47.992 | 50.014 | 64.23 |
| Metallization criterion (M) | 0.5495 | 0.5476 | 0.5472 | 0.5466 | 0.5424 |
| Energy gap($E_g$) | 6.0387 | 5.998 | 5.989 | 5.975 | 5.885 |

## Optical basicity

The optical basicity addresses the ability of oxide glass in contributing the negative charges in the glass matrix. In other words it defines the electron donating power of the oxygen in the oxides glass. The theoretical optical basicity can be calculated by the equation proposed by Duffy and Ingram [29]

$$\Lambda_{th} = X_1 \Lambda_1 + X_2 \Lambda_2 + X_3 \Lambda_3 + X_4 \Lambda_4 \quad (17)$$

Where $X_1$, $X_2$, $X_3$ ,$X_4$, .....$X_n$ are equivalent fraction based on the amount of oxygen each oxide contributes to the overall glass stoichometry and $\Lambda_1$, $\Lambda_2$ , $\Lambda_3$ ,$\Lambda_4$..... $\Lambda_n$ are basicities assigned to the individual oxides. The values of optical basicity of each oxide are: $\Lambda$ ($B_2O_3$) =0.42, $\Lambda$ ($Bi_2O_3$) =1.19, $\Lambda$ ($Li_2O$) =1.00, $\Lambda$ (ZnO) =0.82, $\Lambda$ ($Sm_2O_3$) =0.9476.

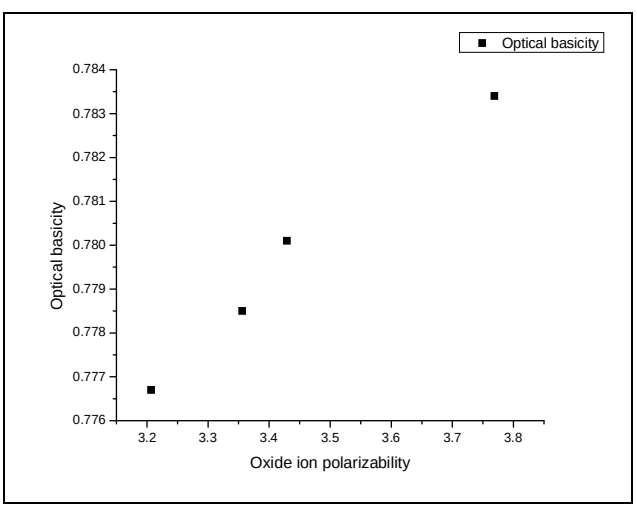



Fig.4. Variation of Optical basicity with Oxide ion polarizability .

### Insulating nature

According to the Herzfeld theory of metallization, If $R_m/V_m > 1$ and $R_m/V_m < 1$ predicting metallic or insulating [30]. Subtracting by 1 gives the metallization (M)

$$M = \left(1 - \frac{R_m}{V_m}\right) \qquad (18)$$

## 4. Conclusions

The $Sm^{3+}$ doped Zinc lithium bismuth borate gasses were prepared at various doping concentration of $Sm_2O_3$ and characterized for their physical properties. The density and refractive index increases with an increase in concentration of $Sm_2O_3$. The results show that the refractive index of glass not only depends on the density but also on the electronic polarizability of the glass. The low values of optical basicity indicate decrease in covalency. The decrease value of metallization criterion indicates that glass material is metalizing.

## References

[1]Shen, L.F., Chen, B.J., Pun, E.Y.B. and Lin, H. (2015). "$SM^{3+}$ doped alkaline earth borate glasses as UV-Visible photon conversion for solar cells", Journal of Lumininescence 160,138-144.

[2] Venkateswarlu.M. and Rudramadevi,H.(2015). Spectral analysis of europium doped borate zinc magnesium glass, International Journal of Chem Tech Research 7,607-612.

[3]X. Zhao, X. Wang, H. Lin and Z. Wang (2007). Electronic polrizability and optical basicity of lanthanide oxide, Physica B., 392,132-136.

[4] Sreekanth Chakaradhar, R.P., Ramesh, K.P., Rao, J.L. and Ramakrishna, J. (2003). Mixed alkali effect in borate glasses-EPR and optical absorption studies in a $xNa_2O$-(30-x) $K_2O$-$70B_2O_3$ glasses doped with $Mn^{2+}$, J.Phys.Chem.Solids, 64,641-650.

[5]Sudhadra, M.,Kistaiah, P.(2012). Infrared and Raman spectroscopic studies of alkali bismuth borate glasses: Evidence of mixed alkali effect, Vibrational Spectroscopy, 62, 23.

[6]. Dumbaugh, W.H. and Lapp. J.C. (1992). Heavy- Metal Oxide Glass, J. Am.Cer.Soc., 75, 2315.

[7] Lin, J.J., Huang, W., Sun, Z., Ray. C.S. and Day, D.E. (2004). Structure and non-lnear optical performance of $TeO_2$-$Nb_2O_5$-ZnO glasses, J. Non-Cryst. Solids, 336(3), 189-194.

[8] Ovcharenko, N.V.and Smirnova, T.V. (2001). High refractive index and magneto- optical glasses in the systems $TeO_2$-$WO_3$-$Bi_2O_3$ and $TeO_2$-$WO_3$-PbO, J. Non-Cryst.Solids 291,121-126.

[9] Ebraheem,S. and EL-Saied, A.(2013). Band gap determination from diffuse reflectance measurements of irradiated lead borate glass system doped with $TiO_2$ by using diffuse reflectancetechnique, Mater. Sci.Appl.4, 324-329.

[10]Wagh, A., Ajithkumar,M.P. and Kamath,S.D.(2013). Composition dependent structural and thermal properties of $Sm_2O_3$ doped zinc fluoro borate glasses, Energy research J.4, 52-58.

[11]Dimitrov, V.and Komatsu, T. (2010). An interpretation of optical properties of oxide and oxide glasses in terms of the electronic ion polarizability and average single bond strength (review), Journal of the University Chemical Technology and metallurgy, 45,219-250.

[12] Dimitrov, V. and Sakka, S. (1996). Linear and nonlinear optical properties of simple oxide.II, J.Appl.Phys. 79, 1741-1745.

[13]Eraiah, B. (2010). Optical properties of lead-tellurite glasses doped with samarium trioxide,Bull.Mater.Sci. 33,391-394.

[14]Chen, X, Luo,W.(2010).Optical spectroscopy of rare earth ion-doped $TiO_2$ anophosphors. J. Nanosci Nanotechnol. Mar; 10, 1482-1494.

[15]Thomas, Praveen K. and Mathew, S. (2010).Hydrothermal Synthesis of Samarium doped nanotitania as highly efficient solar photocatalyst, Sci.Adv.Mat, 2,481-488.

[16] Koechner,W.(1999).Solid state laser engineering, Springer series in optical science, Vol.1,5$^{th}$ ed., New York.

[17]. Ohishi, Y., Mitachi, S., Kanamori, T. &Manabe, T. (1983). Optical Absorption of 3d Transition Metal and Rare Earth Elements in Zirconium Fluoride Glasses. Physics and Chemistry of Glasses, **24**, 135-140.

[18]. Shelby, J.E. &Ruller, J. (1987). Properties of Barium Gallium Germanate Glasses. Physics and Chemistry of Glasses, 28, 262.

[19]. Weber, M.J. (1967). Probabilities for Radiative and Nonradiative Decay of $Er^{3+}$ in $LaF_3$. Physical Review, 157, 262- 272.

[20]. Zhao, X.Y., Wang, X.L., Lin, H. &Wang, Z.Q. (2007). Electronic Polarizability and Optical Basicity of Lanthanide Oxides. Physica B, 392, 132-136.

[21]. Bendow, B., Benerjee, P.K., Drexhage, M.G. & Lucas, J. (1985). Journal of the American Ceramic Society, 65, C92-C95.

[22]. Schroeder, J. (1980). Brillouin Scattering and Pockels Coefficients in Silicate Glasses. Journal of Non-Crystalline Solids,40, 549-566.

[23]. Klinokowski, A. (1985).Non-Monotonic Variations of Some Parameters in Vitreous $R_2O$ $SiO_2$ and $R_2O$ $Al_2O_3$ $SiO_2$ Systems. Journal of Non-Crystalline Solids, 72, 117-137.

[24]. Dimitrov, V. &Sakka, S. (1996). Electronic Oxide Polarizability and Optical Basicity of Simple Oxide. Journal of Applied Physics, 79, 1736-1740.

[25]. Shaker, A., Dasgupta, A., Babsu, B. &Paul, A. (1983). Journal of Materials Science Letters, 4, 697.

[26] Ahmed, M.M., Hogarth, C.A. & Khan, M.N. (1984). A Study of the Electrical and Opt.ical Properties of the $GeO_2$-$TeO_2$ Glass System. Journal of Materials Science, 19, 4040-4044.

[27]. Chimalawong, P., Kaewkhao, J., Kedkaew, C. & Limsuwan, P. (2010). Optical and Electronic Polarizability Investigationof $Nd^{3+}$-Doped Soda-Lime Silicate Glasses. Journal of Physics and Chemistry of Solids, 71, 965-970.

[28]. Saritha, D., Markandeya, Y., Salagram, M., Vithal, M., Singh, A.K. & Bhikshamaiah, G. (2008). Effect of $Bi_2O_3$ on Physical, Optical and Structural Studies of ZnO-$Bi_2O_3$-$B_2O_3$ Glasses. Journal of Non-Crystalline Solids, 354, 5573-5579.

[29]. Duffy, J.A. &Ingram, M.D. (1991). Optical Properties of Glass. The American Ceramic Society, Westerville, 159-184.

[30]. Herzfeld, K.F. (1927).On Atomic Properties Which Make an Element a Metal. Physical Review, 29, 701-705.

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN : 2277-7881; IMPACT FACTOR – 4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# HUMAN RIGHTS AND PANCHAYAT RAJ SYSTEM IN INDIA - A STUDY

**S.P.Selvamani**
Ph.D Research Scholar
Department of Political Science
Government Arts College
Salem, Tamilnadu

**Dr.V.Veeramuthu**
Assistant Professor & Head
Department of Political Science
Government Arts College
Salem, Tamilnadu

## Abstract

The new generation of Panchayats has started functioning several issues have come to the fore, which have a bearing on human rights. The important factor which has contributed to the human rights situation vis-à-vis the panchayat system is the nature of Indian society which of course determines the nature of the state. The social hierarchy is the result of the caste system,which is unique to India. Therefore,caste and class are the two factors, which deserve attention in this context. They are the former untouchables (who now call themselves Dalits, which means 'oppressed'), tribal people, women, and the poor. The process of decentralization through strengthening the democratically elected local bodies tackle the human rights issues This paper investigates first the social factors as well as denial of the rights to livelihood than those who are at the receiving end finally the response of the state. In the unique situation of India, caste and class factors are specially taken up for discussion. The paper concludes with an analysis of the present human rights situation in the context of decentralization raising some questions as to what it holds for the future.

## Introduction

In India human rights have to be studied at three levels: first, state violations of human rights; second, socio-economic factors which work against the rights of the people; and third, denial of the right to

livelihood and decent living conditions leading to indignity and lack of self-respect for a majority of the people. In more than one sense the new phase of the village councils in India has attracted in one way or the other human rights questions at all the above three levels. Therefore an attempt is made in this paper to analyze all these aspects with the available data and also eliciting views of human rights activists and experts in decentralization and Panchayat studies. Although an all-India perspective is taken for this paper, it may be mentioned here that the availability of data from all the states is not uniform.

There are numerous charters and agreements that have been signed by nations to protect the rights of the citizens of their respective countries. According to the Universal Declaration of Human Rights, human rights constitute both civil and political rights (Articles 1 to 21) and economic, social and cultural rights (Articles 22 to 28). In fact, the Universal Declaration reflected the immediate post-war consensus about human rights based on what President Roosevelt described as four freedoms – including the freedom from want- Which he wanted to be incorporated in an International Bill or Rights. There was also a consensus in Vienna at the Second United Nations World Conference on Human Rights in 1993, where the "right to development" was recognized as a universal and inalienable right and an integral part of fundamental human rights. But these did not have any significant impact on the character of the Indian state for some time.

## Caste

Caste in India is a social phenomenon that is extraordinarily difficult to define because of the diversity of its nature. In the villages the caste system is deeply rooted and life is widely affected by it, as caste is "rooted in the religious order and may be thought of as a

hierarchy, endogamous, occupational groups with positions fixed and mobility barred by the ritual distance between each caste".

The human rights activist and scholar R.M. pal observes that the caste system has created impregnable walls between groups of human beings where birth solely determines the social position in society. This Social position is whereby one is born into a certain caste because of his/her doings in the previous life. In his view, the caste system is one of the worst forms of societal violations of human rights in India even today. Pal argues that the Manusmriti or the 'Laws of Manu' from; where the caste system takes its roots is the most deprecating aspect of Indian tradition. It advocates that the position of women in society can never be independent of men. More so, the caste system denies basic education to the lower castes and women. This ancient tradition has been passed on down the ages and it has a significant impact on the life of the rural people even today. A person belonging to the lower castes is forced to live separately, away from the upper castes, mostly on the outskirts of villages. They are often denied the right to vote and they are also forced to work without any remuneration and treated as bonded laborers.

These kinds of violations Continue unabated even today. In the recent local body election in the same state the upper castes are still suppressing the rights of the lower castes to exercise their franchise. Similar incidents have occurred in most of the starts. The northern states, which are prone to more caste conflicts, are witnessing human rights violations after the introduction of the new phase of Panchayats.

The new era of decentralization is still grappling with caste tensions that exist in its crudest form in the rural areas. Atrocities and human rights violations against the lower castes can be controlled only through a culture of equality of human beings. This can be achieved by

human rights education and eradication of illiteracy. The panchayats have a crucial role in this.

**The Economic factor**

Poverty is the denial and the absence of human dignity. In India nearly 300 million live below the poverty line in appalling conditions of extreme deprivation. Pervasive poverty that is widespread in India is in sharp contrast to the ideals of solidarity, social justice and equity that are embodied in the constitution of India. Despite the presence of a number of schemes for the upliftment of the rural poor, there has not been much change in poverty levels, over the years. Recent estimates of rural poverty level over the years. Recent estimates of rural poverty levels show that 26.1 per cent is below poverty; line, out of this 27.1 per cent is in rural areas and 23.6 percent in urban. Nearly half the rural population is still illiterate(50.56%). The illiteracy among rural women is 60 percent. The literacy rate among the women belonging to the scheduled tribes is 24 per cent as against 45.72 per cent for the all India women's average(2001 census).

According to Amartyza Sen and Jean Dreze, in fact, the " directive principles of state policy'', which supplement hard legislation, go much further than the strict legal provisions. For instance , they urge the state "right to an adequate means of livelihood" and "free legal aid" to "free and compulsory education for all children" and "the right to work". The local government system was aimed at bridging the widening gap between the constitutional provisions and the economic realities. However, this is not happening the way it should have.

In the initial years of the introduction of the new panchayatiraj system ,the poor in India have become vulnerable to violence and exploitation. However, there are exceptions. In some states like West Bengal , Karnataka and Kerala the issue of poverty has increasingly

become a human rights issue and decentralization is seen as an effective tool to address this problem.

In the subject listed under the Eleventh Schedule pertaining to the panchayats, the majority of the 29 subjects are related to economic development. For instance, agriculture ,land improvement ,minor irrigation and water management, dairy, fisheries, social forestry, small-scale industries, rural housing, fuel and fodder, roads, ferries and waterways,, rural electrification, poverty alleviation programmes and so on.

## DALITS

In the traditional Varna system a fifth category is the untouchable or outcaste. Mahatma Gandhi gave them the name 'Harijans' which means 'children of god'. But after independence members of the group prefer to call themselves dalits, meaning oppressed. Constitutionally they have special rights and today they are known as scheduled castes. In fact, after the decentralization through the constitutional amendment they were at the receiving end more than anyone else.

The father of the Indian Constitution B.R. Ambedkar, himself a member of an untouchable caste, had stated that the villages were the ruination of India because a village in India is a den of ignorance, communalism, and corruption. What he said 50 years ago is still valid in much of India even after the new panchayat system has been introduced. After the elections, reports from states showed that the human rights of the dalits were violated in more than one sense even after strengthening of the local bodies.

The local bodies elections were a nightmarish experience for the dalits. The Elections could not be held in four gram panchayats reserved for dalits in some districts of Tamil Nadu - because not a

single nomination paper could be filed in the face of threats from upper-caste people in these villages. In many areas, dalit candidates are still living in terror, because they defied the dominant caste of their villages by filing their nomination papers for different posts in the village councils. Dalit voters were prevented from voting in many panchayats. A number of houses and colonies were attacked to intimidate them.

Even after coming into positions of power, dalit elected representatives are restricted in the effective exercise of their leadership. This is more in the case of women dalit members who have to face double oppression. Instances are not uncommon where the women dalit sarpanches sit on the floor during the course of the panchayat meetings while the male upper caste members sit on the chairs. Problems also arise when the gram sachiv (panchayat secretary) happens to be from the upper caste. On the positive side, it was observed that the presence of a dalit sarpanch or dalit ward member has greatly contributed to the participation of greater numbers of the dalit community in gram sabha meetings. Disillusionment arises when the dalit sarpanchs are forced to give priority to activities favoring the upper caste members.

**Tribals**

The scheduled areas and the tribal areas are specified in accordance with the provisions in article 244 and fifth and sixth schedules of the Indian Constitution.The Extension Act is one of the potent legislative measures of recent times, which recognizes the tribal peoples' mode of living, aspirations, their culture and traditions. However, studies to assess the implementation of the Extension Act and to examine as to what extent the 1996 Act was able to establish grassroots democracy in scheduled areas in accordance with the ethos

of the tribal people reveal that nothing notable has taken place in these areas and that the condition of the tribals remain more or less what it was before.

A tribal woman sarpanch was stripped naked while unfurling the national flag on August 15, 1998 (independence day) in a district of Rajasthan. In another case a tribal woman sarpanch in Madhya Pradesh was stripped naked in a gram sabha meeting because she was not consulting the leader of the dominant caste. Such violations of human rights are an everyday occurrence in the tribal areas of India, in spite of powerful legislations for decentralized governance.

**Women**

When India was under colonial rule it was only the restricted male members who could vote and contest elections while women were totally absent from the political scene. For instance, the Bombay Village Panchayat Act 1920 categorically stipulated that no person could become an elected member who was a female and that the election was to be held in each village by the adult male residents at a meeting presided over by the assistant or deputy collector. Even after independence the Indian Constitution did not mention or specifically provide reservation for women's representation in the parliament or state assemblies. It took nearly 40 years for women to find political representation in the formal political institutions. As stated earlier, this was made possible through the 73rd Constitution Amendment Act, which had the landmark provision of reserving not less than one-third of the total number of seats in the local bodies for women.

It provided the much-needed opportunity for women to actively participate in the decision-making processes of their locality through the political right that was conferred on them through the Central Act. In this new era of panchayati raj, there are now more than one million

women representatives elected to the three tiers of panchayats who give more meaning for democratic representation as they become spokespersons of the local community.Initially, women were hesitant to enter this whole new political arena, political parties and vested interest groups took advantage of the situation and proxy rule too prevailed. Thus the power remained in the hands of the traditionally powerful groups.

A major concern of human rights activists is the prevalence of the two-child norm as a criterion for contesting elections, especially in the states of Haryana, Madhya Pradesh, Rajasthan, and Himachal Pradesh, where this rule has come into force. It should be noted here that early childbearing is the norm in rural India, which means that the fertility rate is also high. This restricts many women from coming into the political fray.

## Human rights and panchayat institution

The democratic process has brought people closer in the villages, and they could now take part in the local election every five years and assert their right to vote. The elections in India are a big education process. The rights of the excluded people had been violated over the years owing to lack of a democratic system of governance at the community level where they could participate effectively. The system of local self-government as manifested in the panchayati raj institutions has taken a leap forward in guaranteeing a life of dignity and respect to the citizen at the local village level. Ideals of social justice based on gender equality and liberty are best pursued at the local level.

In a formal sense, all the states have confirmed to the constitutional requirement of ensuring the participation in the PRIs in the hitherto excluded groups (women, dalits, and adivasis) through the system of reservation. The problems of the poor have been sought to be

addressed by transferring some of the poverty alleviation and development programmes to the panchayats due to the constitutional obligation. By and large women have found representation in the panchayats through the one-third reservations of seats. The dalits and adivasis have been represented to the extent of their share in the population.

Evidently, formal representation need not necessarily be an indication of participation. Since the new phase of decentralization, there is evidence that some of the worst forms of exclusion that plagued the rural society in India are no longer practised in a number of states. Elected members sit together and discuss issues in formal and informal meetings. A symbolic participation of all in the village, including the dalits and adivasis and women does take place at least as a constitutional requirement. This is due to the slow but sure changes in the larger political landscape in India.

Since 1993, in the new generation of panchayats, at least two rounds of elections have been held except in a couple of states. It is ironical that elections in India become an occasion for serious human rights violations. During the election period, the rich try to dominate the poor by buying their votes or keeping the poor as 'vote banks'. In many cases the upper castes stop the lower castes from exercising their democratic rights if they come to know that the poor and disadvantaged will exercise their votes independently. In the process violent incidents take place and many lose their lives. Although it happens even during elections to the states and parliament the violence is more in the local elections as the polling percentage is higher at this level.

Violence has increased at the village levels as political power is the most important instrument that exists at the local level and everyone wants to wield it. Therefore, tensions that have existed earlier

mount when those who aspire for power come up against those who resist giving it up. Muscle, money, and caste power are worse at the local level during elections. An analysis of this violence shows that whenever political consciousness is low and development is relatively backward the people in those areas are more prone to violence.

Panchayats have, all the same, opened possibilities for bringing to surface most of the things previously swept under the carpet. No more it is hidden or secret. Although gram sabha and gram panchayat are hotbeds of manipulative politics, they provide a democratic forum to grapple with social and political issues in the open. Such a forum is now available, for the first time, with the constitutional backing.

Here the role of political parties is crucial. The earlier concept of consensus (in effect, consent to whatever the powerful was saying or doing) is giving way to people aligning on party lines questioning every action that is less than transparent. If one political party becomes the protector of the oppressed for whatever reason, another party becomes the guardian of the oppressor. In the local situation, state politics or national level ideology is of little consequence. As of now, open participation of political parties in the panchayat elections is the best way to challenge the age-old autocracy of caste or family.

## Conclusion

The mass media, communication technology and spatial mobility have broken the isolation of the villages. Incidents even in remote village panchayats are thrown up promptly at the state and national level. The new panchayat system, with all its current weaknesses, has helped to weave the village into the broader social fabric.

The silver lining on the otherwise dark horizon is a positive intervention of judiciary upholding the human rights of the

downtrodden at the local level. Although the Indian judiciary is notoriously slow, the public interest litigation has been a successful tool to give meaning and content to the local bodies legislations. There was an instance where a woman belonging to a dalit community who was elected as the head of the panchayat had to face retribution by the defeated candidates belonging to the upper caste. The first information report (FIR) lodged with the police station by the dalit woman president stated that the miscreants looted her house and abused her using derogatory language. A case was filed in the court. The high court refused to quash the FIR and observed that the caste system in India, based on the feudal occupational division of labour in the past, is today totally outmoded and is a great hindrance to the nation's progress... no doubt, the word 'chamar' is a word denoting a certain caste, but the said word is also used in a derogatory sense for persons who are regarded as inferior by the so-called upper caste, and, therefore, it should not be used by the members of the so-called upper castes or OBCs (other backward castes)as it hurts the feelings of the dalits.

Several elected more of the local bodies are a necessary condition to create a culture of genuine democracy and political participation. There is no doubt that the local governments based on vibrant democracy at the local government level with the support of civil society organization will protect the human rights of the people at all levels. But in a traditional society like India this will take time through the democratic process.

**References;**

1. NirmalBuch; Panchayat and women, Institute of Social Science ,New Delhi,2000.

2. G. Palanithurai; Panchayat, communities and Social Development, RajivGandhichair forPanchayat Raj Studies, Gandhigram,2003.

3. Tulsi Jain; PanchayatRaj ; Training and Development, Arise Publishers, New Delhi, 2013.

4. T.M. Joseph; Local Governance In India, Concept Publishing Company, New Delhi,2007.

5. Pattanaik S M; Burning Issues of Human Rights, Yking Books , Jaipur, India.

6. V.VenkataRao;Local Self Government in India,S.Chand& Company Ltd, New Delhi,1997.

7. Ram Ahuja; Viollence Against Women, Rawat Publication, New Delhi, 2003

8. Irfan Ali , Human Rights; Issues and international challenges, Globus press, Delhi, 2014

9. Mandal, Amal, Women in Panchayat Raj Institutions, New Delhi, Kanishka

   Publishers, 1998.

10. Manor, James, The Political Economy of Decentralization, Washington D .C.,

    World Bank, 1999.

11. Indu Baghel, Dalit Women in Panchayat Raj , Jnanada Prakashan publichers, New Delhi.2009.

12. Alan G Smith; Human Rights and Choice in Poverty-Food security, Praeger publishers,1997.

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN : 2277-7881; IMPACT FACTOR – 4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# ACHIEVEMENTS OF C.N. ANNADURAI – A STUDY

**S.Theresammal**
Assistant Professor
Department of History
St.Marys College (Autonomous)
Thoothukudi, Tamilnadu

## Introduction

C.N.Arignar Anna, Conjeevaram Natarajan Annadurai was the first Dravidian and first non-Congress leader to become the Chief Minister of the South Indian state of Tamil Nadu. Despite being born in a middle class family, Annadurai rose to become a school teacher and journalist before switching into hard-core politics.[1] After working for the Dravidian party, Dravidar Kazhagam, he gathered his supporters and gave birth to his own party, Dravida Munnetra Kazhagam (DMK). Such was the influence of Anna in the political world that a party was then launched in his name as Anna Dravida Munnetra Kazhagam (ADMK) by M.G. Ramachandran in 1972 posthumously.[2] With his election as the Chief Minister of Tamil Nadu, Anna rose to extreme popularity amongst ordinary people. He is regarded as one of the charismatic and forceful political leaders of modern India. Besides, he gained fame as an acclaimed orator, Tamil and English litterateur, and a stage actor. [3]

## Early Life

C.N. Annadurai was born to Natarajan and Bangaru Ammal, in Conjeevaram (now called Kanchipuram) in Tamil Nadu. He was born in a middle-class weaver family belonging to Sengunta Mudaliar caste.[4] He was brought up by his sister Rajamani Ammal. Annadurai attained his formal education from Pachaiyappa's High School in Chennai, but left his studies midway due to financial problems and worked as a clerk

in Kanchipuram municipal office to help with the family finances.[5] He later took admission in Pachaiyappa's College for his graduation. However, he was married off with Rani in 1930 at the age of 21 while he was still a student. In 1934, he completed his B.A. (Hons) degree and later achieved his M.A. degree in economics and politics from the same college. For a short period, he earned his living as an English teacher in Pachaiyappa's High school but left to join journalism and politics. [6]

## Entry into Politics

Annadurai was keen on joining politics. With his deep interest in working for the conditions of the poor and down-trodden, his ambition firmed as he was highly influenced by two Communist leaders, M. Singaravelu and C. Basudev.[7] On his first meeting with Periyar E.V. Ramasami in 1934 at a youth conference at Tirupur in Coimbatore district, he was instantly attracted towards him. Even after his split with Periyar on the launch of his own party DMK in 1949, he continued to praise him in public as his one and only leader. He joined the Justice Party, which was formed in 1917 by non-Brahmin elites, in 1935. When he entered the party, the president was Periyar E.V. Ramasami.[8] The party ran a magazine where Annadurai served as the sub-editor. The party swas in power till 1937 after it was defeated by Indian National Congress. Thereafter, Annadurai became the editor of Viduthalai, which means freedom in English, and was even associated with a Tamil weekly paper "Kudi Arusu". In 1942, he began his own Tamil journal titled "Dravida Nadu". Periyar renamed the Justice Party as Dravidar Kazhagam in 1944 and bid adieu to contesting in the elections. [9]

## Establishment of DMK

During India's struggle for independence, the movement was dominated by Indian National Congress that was led by Brahmins. As such, Periyar feared that independent India would be ruled under the

government of Brahmins and North Indians. With this, Periyar objected the move and declared August 15, 1947 as a day of mourning. As such, Periyar witnessed opposition from his supporters and saw that the cause of demand for independence from British rule was a national cause and not just of Aryan North.[10] This triggered a cold war between Annadurai and Periyar. Further when Periyar refused to stand in the democratic elections, Annadurai walked off the meeting in 1948. Periyar's marriage to Maniammai, who was 40 years younger than him, caused the final rift between him and Annadurai, who, in turn, walked out of his party and gave birth to his own party known as Dravida Munnetra Kazhagam (DMK) in 1949, in partnership with Periyar's nephew, E.V.K. Sampath. Initially DMK focused on urban centers and surrounding areas, but with the party's emphasis shifting on to urban lower, lower middle, working classes, students, Dalits, and lower castes, DMK gained rapid recognition and immense support. [12]

## Dravida Nadu

While working for "Dravida Nadu" under Periyar at the time of Dravida Kazhagam, Annadurai supported the former for forming an independent state under the name Dravida Nadu. This thought stayed alive during the initial days of DMK as well. Sampath, who had left Periyar and joined Annadurai, still opposed the fact and considered this demand an unrealistic goal.[13] Later, when Annadurai accepted film stars in his party, Sampath suffered differences between him and other leaders supporting the Dravida Nadu, and hence, left DMK to form his own party, the Tamil Nationalist Party in 1961.[14] But when the Indian government separated Kannada, Telugu, and Malayalam speaking regions from Madras Presidency, Annadurai and his party changed the call for Dravida Nadu into independent Tamil Nadu for Tamil speaking regions. However, when the Sixteenth Amendment was initialized that banned any party from contesting in elections; Annadurai was one of

the members present in the Parliament of India but could not stop from the amendment being passed. [15]

## Protests

Apart from standing for the formation of a separate Tamil-speaking region, Annadurai was actively involved with other protests throughout his political career. When Motilal Nehru recommended Hindi for use as an official language in 1928, people and politicians of Tamil Nadu strongly opposed considering that they would be regarded as second-class citizens, since Hindi was major language of North Indians.[16] This was just the beginning as the Congress party headed by C. Rajagopalachari in Madras Presidency suggested the use of Hindi as a compulsory language in schools in 1938. This was highly objected by Tamil leaders, including Annadurai who, along with poet Bharathidasan, held demonstrations against the cause. He even participated in the first Anti-Hindi imposition conference that was held in Kanchipuram on February 27, 1938. With no positive response and immense opposition, the Madras Presidency withdrew from the cause in 1940. In 1950, when India became a republic, the constitution declared Hindi language to gain official status after 15 years in 1965.[17] This was, as expected, not accepted by the Tamils. As such, Annadurai organized an open-air conference against Hindi imposition at Kodambakkam in Chennai in August 1960. With the rise in the opposition, Jawaharlal Nehru ensured that English would be the official language of India, as long as non-Hindi speaking people wish. However, when no amendment was made in the constitution in 1965, Annadurai declared 26th January, 1955, the 15th Republic Day of India, as the day of mourning. He replaced the protest slogans with "Down with Hindi; Long live the Republic". Though the protest initially broke out in Madurai, it spread throughout the state within days. With violence increasing to its height, Annadurai asked the students to call off the protest, but DMK leaders like Karunanidhi continued the

violence. Annadurai was even arrested for inducing the agitation. Though DMK was not personally responsible for instigating the agitation, it was due to this that DMK won the elections in 1967 with Annadurai becoming the Chief Minister of Madras State.[18]

## Tenure as a Chief Minister

In 1967 elections, the opposition party won nine states over Congress, but Madras was the only state where a single non-Congress party attained majority. Annadurai became the Chief Minister of Madras in February 1967 and legalized self-respect marriages wherein one did not require a Brahmin to preside with the marriage ceremony. Self-respect marriage was an idea conceptualized by Periyar, who considered conventional marriages as an excuse for bribing dowry. It was during Annadurai's tenure as the Chief Minister that the Madras State was renamed as Tamil Nadu.[19] He even introduced the two language policy against the three language formula prevailing in the neighboring states of Karnataka, Andhra Pradesh, and Kerala. He organized the Second World Tamil Conference on January 3, 1968. To mark this conference, the government released a commemorative stamp but it contained Hindi while Annadurai insisted on printing Tamil. He issued an order to remove all pictures of gods and religious symbols from public offices and buildings. On his visit to Yale University in April-May 1968, he was awarded with the Chubb Fellowship and became the first non-American to receive this honor. Later in the same year, he was conferred upon with an honorary doctorate from Annamalai University. [20]

## Literary Career

Apart from his political career, Annadurai was very much involved into writing and filming as well. Talking about his literary career, he was regarded as one of the best Tamil orators during his time. With his spoken and written language, he managed to develop a

unique style. He penned several novels, short stories, and plays that revolved around politics. While working for Dravidar Kazhagam, he acted in some of his own plays. His notable works include Annavin Sattasabai Sorpolivukal (Anna's speeches at the state legislative, 1960), Ilatchiya varalaru (History of Principles, 1948), Valkkaip puyal (Storm of life, 1948), Rankon rata (Radha from Rangon), Kambarasam, Kapothipura kathal (Love in the city of Blind), Parvathy B.A., Kalinga Rani (Queen of Kalinga), and Pavayin payanam (Travels of a young lady).[21]

## Film Career

Annadurai wrote for movies also. His first movie was 1948 "Nallathambi" (Good Brother) starring N.S. Krishnan revolving around cooperative farming and abolition of zamindari system. He earned Rs. 12,000 from this project, a large amount at that time. His novels "Velaikaari" (Servant Maid, 1949) and "Or Iravu" were culminated into movies. His career in films proved to be a boon for him as he was supported by several stage and cine stars, such as D.V. Narayanaswamy, K.R. Ramasamy, N.S. Krishnan, S.S. Rajendran, Sivaji Ganesan, and M.G. Ramachandran. His other works that were converted into movies by the same name are Panathottam (1963), Valiba virundhu (1967), Kumarikottam (1971), Rajapart Rangadurai (1973), Needhi devan mayakkam (1982). [22]

## Death

Annadurai served as the Chief Minister of Tamil Nadu for just two years as he died on February 3, 1969. Though he was suffering from cancer, he managed to keep himself in a healthy condition. It was his tobacco chewing habit that had led to the worsening of his condition. His funeral was attended by a recorded 15 million people, the highest till date as recorded in The Guinness Book of Records. His

remains were buried in the northern end of Marina Beach, now known as Anna Square.[23]

## References

1. "The name game". The Hindu. Retrieved 29 March 2015.p.7.s
2. Bharathidasan (September 1958). "Annadurai". Kuyil. 1 (18).
3. "Life History and Literary Works of C.N. Annadurai". Tamil Electronic Library. Retrieved 20 December 2008.p.3
4. Ibid.p.4
5. Satyendra, Kuśa (2000). Dictionary of Hindu Literature. Sarup & Sons. pp. 9–10. ISBN 81-7625-159-3.
6. Ethnic movement in India By Ganapathy Palanithurai, R. Thandavan
7. "C.N. Annadurai's mission incomplete". The Hindu. Chennai, India. 15 Septembe
8. Rajwat, Mamta (2004). Encyclopaedia of Dalits in India. Anmol Publications PVT. LTD. pp. 246–247. ISBN 81-261-2084-3.
9. Ralhan, O.P. (2002). Encyclopaedia of Political Parties. Anmol Publications PVT. LTD., pp. 125–128.
10. Wilkinson, Steven I (2006). "Caste mobilization in Pre-independence Madras". Votes and Violence: Electoral Competition and Ethnic Riots in India. Cambridge University Press. pp. 189–192. ISBN 0-521-53605-7. Retrieved 16 December 2008.
11. Kandasamy, W.B. Vansantha; Florentin Smarandache; K. Kandasamy (2005). Fuzzy and Neutrosopohc Analysis of Periyar's Views on Untouchability. HEXIS: Phoenix. p. 106.

12. Sarah, Dickey (1993). "The Politics of Adulation: Cinema and the Production of Politicians in South India". The Journal of Asian Studies. Association for Asian Studies. 52 (2): 340–372.

13. Rajagopalan, Swarna (2001). State and Nation in South Asia. Lynne Rienner Publishers. pp. 152–154.

14. Ramaswamy, Cho. "E.V. Ramaswami Naicker and C.N. Annadurai". India Today. Retrieved 19 December 2008.p.3.s

15. Ibid.p.7.

16. Asaan, GVK (2008). "Anna the genius". The birth centenary of Arignar Anna (C.N.Annadurai- 15 September 1909 – 3 February 1969) is being celebrated between September 2008 and September 2009. The first part of his life sketch appeared in the September issue. In this issue we give the second and the concluding part. Modern Rationalist. Retrieved 20 December 2008.

17. Phadnis, Urmila; Rajat Ganguly (2001). Ethnicity and Nation-building in South Asia. SAGE. p. 227.

18. Ganguli, Amulya (26 May 2007). "The DMK's negative politics". The Tribune, India. Retrieved 20 December 2008.

19. Bukowski, Jeanie J; Swarna Rajagopalan (2000). Re-distribution of Authority. Greenwood Publishing Group. pp. 19–21.

20. Jain, Sumitra Kumar (1994). Party Politics and Centre-state Relations in India. Abhinav Publications. p. 142.

21. Thirumavalavan; Meena Kandasamy (2004). Uprrot Hindutva. Popular Prakashan. pp. 125–126.

22. Various authors (1987). Encyclopaedia of Indian literature vol. 1. Sahitya Akademi. p. 181.

23. Ibid.p.182.

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN : 2277-7881; IMPACT FACTOR – 4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# TOURISM DEVELOPMENT IN A.P. AND TELANGANA - DRAWING LESSONS FROM THE WORLD'S TOP TOURIST DESTINATIONS

**Suresh Chennam**
Research Scholar
Department of Commerce & Business Administration
Acharya Nagarjuna University
Guntur, Andhra Pradesh

## Abstract

As we know that the united State of Andhra Pradesh is divided into two separate States, namely, Telangana and Andhra Pradesh in 2014. There is a need for fostering the growth in these two States. No doubt, developing tourism in these two States could ensure all round development of the both the States. There is huge potential for tourism development in both A.P. and Telangana. The two States have their unique features to attract tourists. Hyderabad, Warangal, Mahaboobnagar, Visakhapatnam, Rajahmundry, Vijayawada and Tirupati are the some of the tourism destinations in both the States besides others. Therefore, a look at the world famous tourist destinations and the factors that lead these destinations to become world famous could benefit the policy makers in both the States to formulate suitable policies for the development of tourism in the States. Against this background, the present paper aims at analyzing the factors that lead the world famous tourism destinations to make so. The study is based on secondary data. The study analyzed the tourism development in the neighbouring countries, say, Singapore and Thailand (Bangkok). The study examined the ground realities behind development of the tourist sector in both these cities. It is suggested that both the Governments of Andhra Pradesh and Telangana should make efforts to develop infrastructure, making the cities with cultural diversities, establishing sports hubs, developing hotel industry, airlines

and travel agencies with new market ideas and developing rivers as the major tourist attractions. Andhra Pradesh has another advantage to develop bay of Bengal to attract tourists.

## Introduction

As we know that the united State of Andhra Pradesh is divided into two separate States, namely, Telangana and Andhra Pradesh in 2014. There is a need for fostering the growth in these two States. No doubt, developing tourism in these two States could ensure all round development of the both the States. There is huge potential for tourism development in both A.P. and Telangana. The two States have their unique features to attract tourists. Hyderabad, Warangal, Visakhapatnam, Rajahmundry, Vijayawada and Tirupati are the some of the tourism destinations in both the States besides others. Therefore, a look at the world famous tourist destinations and the factors that lead these destinations to become world famous could benefit the policy makers in both the States to formulate suitable policies for the development of tourism in the States.

The potential of tourism development as a tool to contribute to economic growth and poverty reduction is derived from several unique characteristics of the tourism system. Tourism represents an opportunity for economic diversification, particularly in marginal areas with few other export options. Tourists are attracted to remote areas with high values of cultural, wildlife and landscape assets. The cultural and natural heritage of developing countries is frequently based on such assets, and tourism represents an opportunity for income generation through the preservation of heritage values. Therefore, tourism enables communities that are poor in material wealth but rich in history and cultural heritage to leverage their unique assets for economic development. Tourism is the only export sector where the consumer travels to the exporting country, which provides

opportunities for the poor to become exporters through the sale of goods and services to foreign tourists. Tourism is also labor-intensive and supports a diverse and versatile labor market; it provides small-scale employment opportunities, which also helps to promote gender equity. There are numerous indirect benefits of tourism for the poor, including increased market access for remote areas through the development of roads, infrastructure, and communication networks.

Against this background, the present paper aims at analyzing the factors that lead the world famous tourism destinations to make so. The study is based on secondary data. The study analyzed the tourism development in the neighbouring countries, say, Singapore and Thailand (Bangkok).

## Tourism in Andhra Pradesh

Andhra Pradesh Tourism Development Corporation (APTDC) is a state government agency which promotes tourism in Andhra Pradesh, describing the state as the Koh-i-Noor of India. Andhra Pradesh has a variety of tourist attractions including beaches, hills, caves, wildlife, forests and temples. Visakhapatnam city in A.P. has many tourist attractions such as Kailashagiri park near the sea, Visakha Museum, Indira Gandhi Zoological Park, the INS Kursura Submarine museum, the Dolphins Nose, and the Lighthouse. Visakhapatnam has many beautiful beaches along the Bay of Bengalnamely R.K. Beach, Rishikonda Beach, Lawsons Bay Beach, etc. There are other beaches too along the long coastline of the state, such as Suryalanka Beach, located 9 km from Bapatla in Guntur District. The Borra Caves in the Ananthagiri Hills of the Eastern Ghats, near Vishakapatnam at an altitude of about 800 to 1300 metres are famous for million-year-old stalactite and stalagmite formations. Araku Valley is a hill station in Visakhapatnam district. The Anantagiri and Sunkarimetta Reserved Forest, which are part of Araku Valley, are rich in biodiversity. It has

thick forests, coffee plantations, waterfalls. This scenic beauty attracts large number of tourists. Tourist spots at Vijayawada include Prakasam Barrage, Kondapalli Fort, Krishna River, Bhavani Island and many more parks in the city. Rajahmundry city, located on the banks of Godavari River is one of the main attractions of the state. Tirumala Venkateswara Temple in the town of Tirumala in Chittoor district is an important pilgrimage site for Hindus throughout India. It is one of the richest pilgrimage temple of any religious faith in the world. Further, the State is known for its educational standards, particularly in Guntur and Vijayawada cities of Andhra Pradesh.

Thus, there is a huge potential for the development of beach tourism, pilgrimage tourism, adventure tourism, eco tourism, education tourism, etc. in Andhra Pradesh.

**Tourism in Telangana**

Telangana State Tourism Development Corporation (TSTDC) is a state government agency which promotes tourism in Telangana, a state in the Southern region of India. Tourist attractions in Telangana include historical places, monuments, forts, water falls, forests and temples. Hyderabad, the state capital, ranked second best place in the world that one should see in 2015 which is published in the annual guide of 'Traveler' magazine of National Geographic. Hyderabad and Warangal and mahaboobnagar are the largest cities with many tourist places. Yadagirigutta is famous for the Lord Vishnu (whose reincarnation is Lord Narasimha) temple. The main deity is Lakshmi Narasimha Swamy. It is located in Nalgonda District. Thousand Pillar Temple is one of the oldest temples of South India that was built by the kakatiya. It is believed that the Thousand Pillar Temple was built by King Rudra Deva in 1163 AD. Bhadrachalam Temple is a temple to Lord Rama in the town of Bhadrachalam in Khammam district. It is

situated on the banks of the river Godavari. This is the place where Kancherla Gopanna (1620–1680) wrote his devotional songs dedicated to Lord Rama. Sri Rama Navami, a celebration of the Marriage of Lord Rama and Sita, is celebrated here every year.

Thus, it shows that the Telangana State has major tourist attractions and has the significant potential for tourism development.

**Lessons from World famous tourism destinations**

There is no doubt that tourism is a global phenomenon. Few places on the planet have escaped the curiosity of the tourist, or the ability of the tour operator to package even the most remote or dangerous location.

**Tourism development in Bangkok**

Bangkok, the capital of Thailand, is one of the world's top tourist destination cities. Bangkok has also been named "World's Best City" by Travel + Leisuremagazine's survey of its readers. As the principal gateway for arriving visitors, Bangkok is visited by the majority of international tourists to the country. Domestic tourism is also prominent. Chinese visitors spend a lot of money and most goes to retailers in Bangkok. Bangkok's sights, attractions, and city life appeal to diverse groups of tourists. Royal palaces and temples as well as museums constitute its major historical and cultural tourist attractions. Shopping and dining experiences offer a range of choices and prices. The city is also famous for its nightlife.

By the mid-19$^{th}$ century, the West had become an increasingly powerful presence. Missionaries, envoys and merchants began re-visiting Bangkok and Siam, bringing with them both modern innovations and the threat of colonialism. King Mongkut (reigned 1851–68) was open to Western ideas and knowledge, but was also forced to acknowledge their powers, with the signing of the Bowring Treaty in

1855. During his reign, industrialization began taking place in Bangkok, which saw the introduction of the steam engine, modern shipbuilding and the printing press. King Mongkut's son Chulalongkorn (reigned 1868–1910) was set upon modernizing the country. The Western concept of nationhood was adopted, and national borders demarcated against British and French territories. During his reign many more canals and roads were built, expanding the urban reaches of the capital. Infrastructure was developed, with the introduction of railway and telegraph services between Bangkok and Samut Prakan and then expanding countrywide. As a result of Pro West treaties Bangkok rapidly grew in the post-world war II as a result of United States developmental aid and government-sponsored investment. Infrastructure including the Don Mueang International Airport and highways was built and expanded. Bangkok's role as an American military R&R destination launched its tourism industry as well as sex trade.

It can be observed that infrastructure development is the key for the development of the tourism sector in Bangkok city besides adopting western style and the dedication of the rulers.

The economic contribution of travel and tourism to the Thailand economy from 2009 to 2014 is presented in Table – 1. Table – 2 shows the growth rates of economic contribution of the sector. It is evident from tables that travel and tourism sector is contributing significantly to the GDP of the Thailand economy besides providing good number of employment opportunities. The growth rates are steadily increasing in some years, while they are declined in some other periods during the reference period.

**Table – 1**

**THE ECONOMIC COTRIBUTION OF TRAVEL & TOURISM TO THE THAILAND ECONOMY (2014 PRICES)**

(In THBbn)

(1 Thai Baht = 1.83 Indian Rupee)

| Sl. No. | Particulars | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|
| 1. | Visitor exports | 761.4 | 816.7 | 981.1 | 1205.6 | 1430.7 | 1309.1 |
| 2. | Domestic expenditure (includes government individual spending) | 440.1 | 465.1 | 487.8 | 538.5 | 551.1 | 564.8 |
| 3. | Internal tourism consumption (1+2) | 1201.5 | 1281.8 | 1468.9 | 1744.2 | 1981.8 | 1873.9 |
| 4. | Total contribution of Travel & Tourism to GDP including direct, indirect and induced impacts | 1674.8 | 1613.3 | 1820.5 | 2183.0 | 2450.9 | 2345.1 |
| 5. | Total contribution of Travel & Tourism to employment | 4960.2 | 4334.0 | 4454.3 | 5386.5 | 6019.0 | 5382.9 |

**Source:** World Travel and Tourism Council (2015), "Travel & Tourism Economic Impact 2015 - Thailand", London, UK.

**Table – 2**

**GROWTH RATE OF THE ECONOMIC COTRIBUTION OF TRAVEL & TOURISM TO THE THAILAND ECONOMY**

(In %)

| Sl. No. | Particulars | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|
| 1. | Visitor exports | -11.1 | 7.3 | 20.1 | 22.9 | 18.7 | -8.5 |
| 2. | Domestic expenditure (includes government individual spending) | -11.3 | 5.7 | 4.9 | 10.4 | 2.3 | 2.5 |
| 3. | Internal tourism | -11.1 | 6.7 | 14.6 | 18.7 | 13.6 | -5.4 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | consumption (1+2) | | | | | | |
| 4. | Total contribution of Travel & Tourism to GDP including direct, indirect and induced impacts | -8.6 | -3.7 | 12.8 | 19.9 | 12.3 | -4.3 |
| 5. | Total contribution of Travel & Tourism to employment | -2.9 | -12.6 | 2.8 | 20.9 | 11.7 | -10.6 |

**Source:** World Travel and Tourism Council (2015), "Travel & Tourism Economic Impact 2015 - Thailand", London, UK.

**Tourism development in Singapore**

Tourism in Singapore is a major industry and contributor to the Singaporean economy. It is interesting to note that the number of foreign tourists in a year is more than the population of the Singapore. It is also environmentally friendly, and maintains natural and heritage conservation programs. Along with this, it also has one of the world's lowest crime rates. As English is the dominant one of its four official languages, it is generally easier for tourists to understand when speaking to the local population of the country. Transport in Singapore exhaustively covers most, if not all public venues in Singapore, which increases convenience for tourists. This includes the well-known Mass Rapid Transit (MRT) system. Over half (53%) of visitors came from the five biggest markets, mainly Indonesia, People's Republic of China, Malaysia, Australia and India. Other major markets include the Philippines, Japan, the United Kingdom, Thailand and the United States of America.

The Singapore Tourism Board is a statutory board under the Ministry of Trade and Industry of Singapore, tasked to promote the country's tourism industry. The board was first established in 1964 and was called the Singapore Tourist Promotion Board. In that year, there were 91,000 visitors. The primary task of STPB was to coordinate

the efforts of hotels, airlines and travel agents to develop the fledgling tourism industry of the country. Later, STPB began to initiate new marketing ideas to promote Singapore's image aboard. The board created the Merlion, a symbol based on a Singapore mythical legend, that became an icon of the Singapore destination. The board has also been providing travel agent licensing and tourist guide training. STPB actively promoted the development of infrastructure, including the building of hotels and tourist attractions such as the Jurong Bird Park and Sentosa which is now a popular resort island for both tourists and local visitors. The board also markets the city as a convention venue and organises events to attract visitors.

In the 1980s, several historic and culturally significant areas were earmarked for preservation. These places express Singapore's cultural diversity and became popular tourist destinations. The Singapore River underwent a major cleanup program and the areas along the river were developed for restaurants and other tourist amenities.

New developments such as the International Cruise Terminal, Gardens by the Bay, Marina Bay Sands, organizing Formula 1 Singtel Singapore Grand Prix and the inaugural Youth Olympic Games and Changi Motor Sports Hub are behind the tourist growth in the recent years that enhanced the Singapore's status as a dynamic global city and increase visitor arrivals.

It is observed that earnest efforts of the Singapore country to promote tourism has resulted in the development of tourism sector in the country to that extent. These efforts include coordinating the efforts of hotels, airlines and travel agents to develop the fledgling tourism industry of the country; new marketing ideas to promote Singapore's image aboard; promoting the development of infrastructure, including the building of hotels and tourist attractions;

creating image as the city with cultural diversity; maintenance of the rivers; development of rivers and coastal corridors and establishing hotels and gardens along the side of the rivers and coastal areas and making the city as the sports hub.

The economic contribution of travel and tourism to the Singapore economy from 2009 to 2014 is furnished in Table – 3. Table – 4 presents the growth rates of economic contribution of the sector. It is revealed from tables that travel and tourism sector is contributing predominantly to the GDP of the Singapore economy besides providing huge number of employment opportunities. There is a growth from year to year.

**Table – 3**

**THE ECONOMIC COTRIBUTION OF TRAVEL & TOURISM TO THE SINGAPORE ECONOMY (2014 PRICES)**

(In SGDbn)

(1 Singapore Dollar = 46.89 Indian Rupee)

| Sl. No. | Particulars | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|
| 1. | Visitor exports | 13.4 | 19.5 | 22.8 | 23.4 | 23.6 | 23.9 |
| 2. | Domestic expenditure (includes government individual spending) | 7.9 | 8.5 | 9.1 | 9.4 | 10.0 | 10.6 |
| 3. | Internal tourism consumption (1+2) | 21.3 | 28.0 | 32.0 | 32.8 | 33.6 | 34.5 |
| 4. | Total contribution of Travel & Tourism to GDP including direct, indirect and induced impacts | 27.4 | 33.5 | 36.2 | 37.8 | 37.3 | 38.5 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5. | Total contribution of Travel & Tourism to employment | 203.8 | 238.3 | 267.9 | 291.0 | 295.6 | 302.9 |

**Source:** World Travel and Tourism Council (2015), "Travel & Tourism Economic Impact 2015 - Singapore", London, UK.

**Table – 4**

**GROWTH OF THE ECONOMIC COTRIBUTION OF TRAVEL & TOURISM TO THE SINGAPORE ECONOMY**

(In %)

| Sl. No. | Particulars | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|
| 1. | Visitor exports | -13.6 | 45.5 | 17.0 | 2.5 | 0.6 | 1.6 |
| 2. | Domestic expenditure (includes government individual spending) | -5.5 | 7.6 | 7.2 | 2.6 | 6.9 | 5.6 |
| 3. | Internal tourism consumption (1+2) | -10.7 | 31.3 | 13.9 | 2.5 | 2.5 | 2.9 |
| 4. | Total contribution of Travel & Tourism to GDP including direct, indirect and induced impacts | 7.8 | 22.0 | 8.4 | 4.4 | -1.3 | 3.2 |
| 5. | Total contribution of Travel & Tourism to employment | 1.0 | 16.9 | 12.4 | 8.6 | 1.6 | 2.5 |

**Source:** World Travel and Tourism Council (2015), "Travel & Tourism Economic Impact 2015 - Singapore", London, UK.

## Conclusion

It is concluded that both the cities under the present study, namely, Bangkok and Singapore contributed to the exchequer by attracting huge number of tourists. It is striking to note that number

of tourists visited Singapore in some years crossed the number of population of the country.

The study examined the realities behind the development of tourism in these cities. It can be observed that infrastructure development is the key for the development of the tourism sector in Bangkok city besides adopting western style and the dedication of the rulers. It is observed that earnest efforts of the Singapore country to promote tourism has resulted in the development of tourism sector in the country to that extent. These efforts include coordinating the efforts of hotels, airlines and travel agents to develop the fledgling tourism industry of the country; new marketing ideas to promote Singapore's image aboard; promoting the development of infrastructure, including the building of hotels and tourist attractions; creating image as the city with cultural diversity; maintenance of the rivers; development of rivers and coastal corridors and establishing hotels and gardens along the side of the rivers and coastal areas and making the city as the sports hub.

Therefore, it is suggested that both the Governments of Andhra Pradesh and Telangana should make efforts to develop infrastructure, making the cities with cultural diversities, establishing sports hubs, developing hotel industry, airlines and travel agencies with new market ideas and developing rivers as the major tourist attractions. Andhra Pradesh has another advantage to develop bay of Bengal to attract tourists.

## References

1. Robert B Richardson (2010), “The Contribution of Tourism to Economic Growth and Food Sec urity”, retrieved from http://ageconsearch.umn.ed u/bitstre am/97140 /2/Tou rism_ and_food_security_in_Mali_A4.pdf

2. Ahmad Jafari Samimi, Somaye Sadeghi and Soraya Sadeghi (2011), "Tourism and Economic Growth in Developing Countries: P-VAR Approach", Middle-East Journal of Scientific Research, Vol.10, No.1, pp.28-32.

3. Reports of the World Travel and Tourism Council

4. World Travel and Tourism Council (2015), "Travel & Tourism Economic Impact 2015 - Singapore", London, UK.

5. World Travel and Tourism Council (2015), "Travel & Tourism Economic Impact 2015 – Thailand", London, UK.

6. https://en.wikipedia.org/

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN : 2277-7881; IMPACT FACTOR – 4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# ORBITS AND PARTITION

**T.Srinivasarao**
Assistant Professor
Ddepartment of Mathametics
Adikavi Nannaya University
Rajahmundry

**Abstract**: it is a necessity day in and day out to protect one's personal data from hacking. Mathematics is an area where modeling is done for all problems. Algebra is a prime branch of mathematics where some technique or other will help us that is typically understood by human minds. So, I have peeped through a technique that ultimately will take someone and at least for a possible period only one to remember the encoding and decoding secrecy.

The group action of a field on the algebraic closure will allow an unknown algebraic number to be the secret key that helps to encode an arbitrary collection of codes that are not necessarily binary and so, to decode the message, one needs to identify the field, whether it is a finite field or infinite, how much is the degree of the polynomial what is the degree of the simple root and what is the behavior of the orbit will be the puzzles that will be tough to decode by a 2nd person him/herself without having the knowledge of the isomorphic field. So, the hacking practice will be put to check for some more days during which the big data will be safe.

## Preliminaries

**Notations and Symbols:** $E = F[x]/\langle p(x)\rangle$ quotient field,

$F^{*}_{p(\alpha)}$ : the set of non zero elements of the orbit making a multiplicative group.

$\overline{F}$ : the algebraic closure of a field *F* stands for the field extension of *F* that comprises of all possible algebraic numbers

**Definition 1:** if $(F,+,\cdot)$ is a field, then the set of all polynomials whose coefficients are from *F* form a principal ideal domain $F[x]$ under the addition of polynomials and multiplication of polynomials.

**Definition 2**: a polynomial $p(x)$ in a principal ideal domain $F[x]$ is said to be irreducible if for no element *a* of *F*, if $p(a)=0$ holds.

**Definition 3**: if $p(x)$ is an irreducible polynomial over a field *F*, then the set of all multiples of $p(x)$ in $F[x]$ forms an ideal which is a principal ideal in $F[x]$ denoted by $\langle p(x)\rangle$.

**Theorem**: if $p(x)$ is an irreducible polynomial over a field *F*, then the principal ideal $\langle p(x)\rangle$ is a maximal ideal in $F[x]$

**Theorem**: if *F* is a field, $F[x]$ is the principal ideal domain and $p(x)$ is irreducible over *F*, then $\langle p(x)\rangle$ is a maximal ideal and thus $E = F[x]/\langle p(x)\rangle$ is a field.

**Definition 4:** a field *E* is an extension field over a field $(F,+,\cdot)$ if there is an irreducible polynomial $p(x)$ over $F$ and reducible over $E$.

The field $\overline{F}$ is the algebraic extension of the field *F* that has all possible algebraic numbers over *F*. the minimal polynomial $F(\alpha)$ is the smallest algebraic extension of *F* having *F* and the only algebraic number $\alpha$ while the maximum possible extension with all possible algebraic numbers is $\overline{F}$. An algebraic number $\alpha$ is said to be simple, if $p(\alpha)$ is the minimal polynomial and the multiplicity of $\alpha$ is 1. Obviously the

minimal polynomial is of the form $x^{p-1}+x^{p-2}+...+x+1$ whose root is $\alpha$. The other case of the irreducible polynomial will be $(x-\alpha)^k$ in which $\alpha$ is a root with multiplicity *k* and so, the root is said to be multiple.

Let us define $F\times\overline{F}\xrightarrow{\sigma}\overline{F}$ by $\sigma(a,p(\alpha))=a\cdot p(\alpha)$ for $a\in F\ \&\ p(\alpha)\in\overline{F}$ with $\alpha$ is the simple algebraic number.

We write $\sigma(a,p(\alpha))=a*p(\alpha)$ for sake of convenience and easily see

$a*(b*p(\alpha))=a*(b\cdot p(\alpha))$ where '·' stands for the multiplication in *F*.

$$=a(b\cdot p(\alpha))$$
$$=(ab)\cdot p(\alpha)$$
$$=ab*p(\alpha) \qquad .....(i)$$

Also, 1 is in *F* is such that $1*p(\alpha)=1\cdot p(\alpha)$ in $\overline{F}$

$$=p(\alpha) \qquad .....(ii)$$

$(i)\&(ii)$ satisfy the definition of a group action of *F* on $\overline{F}$ and so $\overline{F}$ is a *G* – set.

Further, taking $F^*_{p(\alpha)}=\{a\in F\mid a\cdot p(\alpha)=p(\alpha)\}$, we see that $0\notin F^*_{p(\alpha)}$

See that $a,b\in F^*_{p(\alpha)}\Rightarrow b\cdot p(\alpha)=p(\alpha)$

$$\Rightarrow b^{-1}(b\cdot p(\alpha))=b^{-1}\cdot p(\alpha)$$

$$\Rightarrow b^{-1}\cdot p(\alpha)=p(\alpha)$$

Now, consider $ab^{-1}*p(\alpha)=a*(b^{-1}\cdot p(\alpha))=a*p(\alpha)=p(\alpha)$

This shows that $F^*_{p(\alpha)}$ is the subgroup of *F* such that $0\notin F^*_{p(\alpha)}$

In other words, all the non – zero elements of *F* form a subgroup $F^*_{p(\alpha)}$ in *F* that is Define $F_{P(\alpha)} = \{a \cdot p(\alpha) \mid a \in F, p(\alpha) \in \overline{F}\}$. This is called the orbit of $p(\alpha)$ in $\overline{F}$

See that $0 = 0 \cdot p(\alpha)$ and so, $0 \in F_{p(\alpha)}$

**Theorem 1: Orbit of $P(\alpha)$ is the smallest field extension of *F* having $\alpha$**

Observe that, for each algebraic number $\alpha$ over *F*, there corresponds a minimal polynomial $p(x)$ with the simple root $\alpha$ and each $p(\alpha)$ allows the smallest extension of *F* having the particular algebraic number and is identically equal to the orbit of $p(\alpha)$. Since the set of all orbits make a partition over the *G* – set, the generalization can be followed as

**Theorem 2: The set of all smallest extensions over a field make partition over $\overline{F}$**

**References:**

1. J J O'Connor and E F Robertson, The development of Ring Theory, September 2004.
2. Moore, E. Hastings (1893), "A doubly-infinite system of simple groups", Bulletin of the New York Mathematical Society, **3** (3): 73–78, doi:10.1090/S0002-9904-1893-00178-X, JFM 25.0198.01. From page 75: "Such a system of s marks [i.e., a finite field with s elements] we call a field of order s."
3. Earliest Known Uses of Some of the Words of Mathematics (F)
4. Fricke, Robert; Weber, Heinrich Martin (1924), Lehrbuch der Algebra, Vieweg, JFM 50.0042.03
5. Steinitz, Ernst (1910), "Algebraische Theorie der Körper", Journal für die reine und angewandte Math ema ti k, **137**: 167–309, doi :10.151 5/crll.1 10.137.16 7, I SS N 0 07 5-4102, JFM 41.0445.03

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN : 2277-7881; IMPACT FACTOR – 4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# THE ASSOCIATION BETWEEN ANTHROPOMETRIC CHARACTERISTICS AND 5000M RACE PERFORMANCE FOR JUNIOR MALE ATHLETES

**Zerihun Birhanu**
Research Scholar
Dept. of Physical Education and Sport Science
Andhra University
Visakhapatnam

**Pallavi .A**
Assistant Professor
Dept. of Physical Education and Sport Science
Andhra University
Visakhapatnam

## Abstract

The major aim of this study was to investigate the association between anthropometric characteristics and 5000m race performance for junior male athletes' according to the IAAF's scoring tables of athletics based on time. For the purpose of this study a total of 34 male junior 5000m athletes whose age ranging 16-19 years were selected mainly from two athletics training sites in Ethiopia. The training sites were Ethiopian youth sport academy and Tirunesh Dibaba athletics academy. Through both the critical and allied literature pertaining to the problem under consideration the following anthropometric variables were selected- age, training age, sitting height, standing height, body weight, sum of six sites skinfold measure (upper body), sum of 2 sites skinfold measure (lower body), sum of 8 sites skinfold measure (lower and upper body), percent body fat, total arm length and total leg length. Skinfolds were measured at the following sites: biceps, triceps, subscapular, pectoral, iliac crest, abdominal, front thigh and medial calf. The entire analysis has been carried out by using statistical soft ware (SPSS 20 version) to address the objectives of the study. In order to ascertain significance of correlation between the anthropometric variables and athletes performance in 5000m Pearson's coefficient of correlation (r) test was employed and the level of significance was recorded at 5% level. Furthermore, the mean and standard deviation of the variables were

calculated as well. The result indicated that a significant association was found between athletes sitting height, standing height, sum of 6 skinfold measures for upper body, sum of 2 skinfolds for lower body, and sum of 8 skinfold measure for upper and lower body with 5000m race performance.

**Key words:** Anthropometry, percent body fat, training age, sitting height, standing height, skinfold, race performance.

## 1 Introduction

Anthropometry is the branch of anthropology that is concerned with the measurement of human body. The definition has confined to the kind of measurements commonly used in associating physical performance with body build. Anthropometry involves the measurement of external part of the body, including body diameters, body circumferences and somatotypes (Saha, 2012). Specific anthropometric characteristics are needed to be successful in certain sporting events. It is also important to note that there are some differences in body structure and composition of sports persons involved in individual and team sports. The tasks in some events, such as shot put or high jump, are quite specific and different from each other and so are the successful physiques. This process whereby the physical demands of a sport lead to selection of body types best suited to that sport is known as “morphological optimization” (Bloomfield et al., 1995). Physical characteristics and body composition have been known to be fundamental to excellence in athletic performance (Mathur & Salokun, 1985).

Specific athletic events require different body types and weights for maximal performance. Today it has been widely accepted by the experts that top performance in sports is achieved if an athlete possesses the basic anthropometric characteristics suitable for the event. There are numerous factors which are responsible for the performance of a

sportsman. The physique and body composition, including the size shape and form are known to play a significant role in this regard. At present, sportsman for superior performance in any sports is selected on the basis of physical structure and body size. Structural measurement include anthropometric measurements which consist of objective measurement of structures such as height, weight, width, depth and the circumference of the various part of body. Therefore, the athletes in a particular sport must possess such typical characteristics which are of advantage to their performance (Gopal, 2012).

The main aim of this study was to investigate the association between anthropometric characteristics and 5000m race performance for junior male athletes, which helps us to select athletes at early ages for talent identification.

## 2. **Methodology Selection of Subjects**

Present investigation was carried out in order to examine the `the association between some selected anthropometric variables with running performance for junior 5000m male athletes. Totally 34 male athletes under the age category of 17-19 years were selected from two training centres. The training centres namely were Ethiopian youth sport academy and Tirunesh Dibaba athletics centre. Running times were obtained after consulting the officials and coaches of the training centres approved by the Ethiopian Athletics Federation (EAF). All runners had been training for around 5 years and had taken part in national. The criteria applied to determine the best performance of those athletes involved in 5000m was established by means of the corresponding performance equivalent according to the score awarded by the International Amateur Athletic Federation (IAAF) (Spiriev, 2014). The IAAF, using a database of performances obtained at world events, assigns a score to each performance, enabling them to compare the different performances in different events for the same athlete

## 3. Selection of Variables

The anthropometric variables that could influence performance in long distance events particularly in 5000m were recorded by reviewing and studying related literature in detail. The fololloving variables were selected so as to achieve the objective of the present study. These are: age, training age, sitting height, standing height, body weight, sum of six sites skinfold measure (upper body), sum of 2 sites skinfold measure, sum of 8 sites skinfold measure, percent body fat, total arm length and total leg length. Performance was rated by the scoring procedures
of the International Amateur Athletics Federation.

## 4. Administration of the Test

To get reliable information from the research participants, the types of instruments used have paramount importance. Thus tests and measurements of the variables under study and documents were the main data collecting mechanisms of this study. Below, the detailed description and procedures are presented.

For the purpose of obtaining current reliable anthropometric data from subjects the following measurement equipments and procedures were used.

For body stature (height) - a standardized stadiometer, for body weight - a standard weighing machine (Omron HBF-375 Karada Scan Body Fat Analyzer), for leg and arm length - anthropometric rod and for Skinfold measurement - Gadget Hero's GHAC Body Fat Analyzer were used. All the equipments used for the measurement of anthropometric variables are tested for their accuracy.

Prior to testing, the investigator was well acquainted with the subjects with due help from their coaches to explain the procedure in collecting

the data. They were requested to co-operate and participate actively for the same.

The precise assessment of anthropometric measurements can be difficult and therefore extreme care is required. For the anthropometric measurements, throughout the protocol the subject has been asked to assume different positions. Assistants were used to record values and help standardize measurement techniques. First of all, the researcher had the consent of Ethiopian youth sport Academy office for its permission for cooperation and the collection of data and relevant information. Prior to measuring and data collection, the testers and assistants were given training about appropriate measuring technique. This is to reduce the level of error in repeated measurements and among investigators, to establish accuracy, and to expose any weaknesses in technique.

The investigator were gathered every subject in their own training centres and they were explained the purpose of the study. Necessary instructions were passed to the subjects. Each subject was informed as to what measurements are to be taken, what positions to assume during the measurement and local or institutional rules followed regarding consent. In addition to the above general aspects specific instructions and procedures has been followed strictly during anthropometric tests and measurements. All the measurements were taken according to the International Standards for Anthropometric Assessment.

## 5. Tester's Competency

All the measurements were taken by the research scholar himself with the assistances who are well trained in the area. Before going for the original data collection the scholar had a number of practice sessions under the supervision and guidance of professionals in the area. The chosen variables were collected by the research scholar along with the

assistance of trained personnel who were serving as a coach and researcher in the training centres during the time of August 2015 to May 2016. The data was collected from the athletes with their consent and convenience on the track and field arena, at their place of accommodation and in the gymnasium by the investigator who was assisted by team coaches, managers and members of each training centres.

## 6. Statistical Analysis

The anthropometric data obtained from athletes were computed as follows. For the sake of securing athletes' best race performances time for each event and data about athletes background information, documents like training plan and athletes' competition profile from the training centres and the coaches were obtained. Data are expressed as means and standard deviation. The entire analysis has been carried out by using statistical software (SPSS 20 version) to address the objectives of the study. In order to ascertain significance of correlation between the anthropometric variables and athletes performance in 5000m Pearson's coefficient of correlation (r) test was employed and the level of significance was recorded at 5% level. Furthermore, the mean and standard deviation of the variables were calculated as well.

## 7. Results and Discussion

The means and standard deviations performance and anthropometric characteristics of athletes are presented in Table I

Table 1: Mean and Std Deviation values of anthropometric variables of junior male 5000m athletes

| Sl. No | Variables | Units | Mean | Std. D | N |
|---|---|---|---|---|---|
| 1. | Perf | Points | 832.35 | 56.73 | 34 |
| 2. | Age | Year | 18.65 | .49 | 34 |
| 3. | Training Age | Year | 5.00 | 1.30 | 34 |

| | | | | | |
|---|---|---|---|---|---|
| 4. | Sit H | cm | 84.24 | 2.91 | 34 |
| 5. | Sta H | cm | 170.68 | 5.25 | 34 |
| 6. | BW | kg | 56.84 | 4.07 | 34 |
| 7. | S6SFM (upper body) | mm | 32.88 | 12.11 | 34 |
| 8. | S2SFM (lower body) | mm | 8.12 | 2.41 | 34 |
| 9. | S8SFM (Up & Lo Body) | mm | 41.00 | 14.14 | 34 |
| 10. | PBF | % | 3.84 | 1.99 | 34 |
| 11. | TAL | cm | 63.00 | 4.35 | 34 |
| 12. | TLL | cm | 86.12 | 7.10 | 34 |

**Key:** Perf = performance, Sit H. = sitting height, Sta H. = standing height, BW = body weight, S6SFM = sum of 6 sites skinfold measure, S2SFM = sum of 2 sites skinfold measure, S8SFM = sum of 8 sites, skinfold measure, PBF = percent body fat, TAL = total arm length, TLL = total leg length

**Table 2-**Correlations of anthropometric variable and performance in 5000m for junior male athletes

| Anthropometric variables | | Perf | Age | Training Age | Sit H in cm | Sta H in cm | BW in kg | TAL in cm | TLL in cm |
|---|---|---|---|---|---|---|---|---|---|
| Perf | Pearson Correlation | 1 | .215 | .159 | .442** | .470** | .096 | .302 | .138 |
| | Sig. (2-tailed) | | .222 | .369 | .009 | .005 | .587 | .083 | .437 |
| | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| **. Correlation is significant at the 0.01 level (2-tailed). | | | | | | | | | |
| *. Correlation is significant at the 0.05 level (2-tailed). | | | | | | | | | |

Table 2- has shown correlation between athletes' age, training age, sitting height, standing height, body weight, total arm length, and total leg length with 5000m race performance for male athletes. It was found that only sitting height and standing height of athletes has shown a

positively moderate correlation $r = 0.44$, $N = 34$, $p < .01$ and $r = 0.47$, $N = 34$, $p < .01$ respectively.

A Pearson's r data analysis revealed a non-significant correlation between athletes' age, training age, body weight, total arm length and total leg length with their race performance in 5000m.

According to the result of this study athletes with a longer sitting and standing height score reported better performance in 5000m running. It was a tiresome task to obtain studies conducted on the same event. However, the research scholar tried to examine similar works by different scholars. Hence, P. Bale, D. Bradbury and E. Colley (1986) studied sixty male distance athletes divided into three equal groups according to their personal best time for the 10km run. According to the result of their study the most able runners were shorter than those in the other two groups which are different from the result of this study. According to Hauhan, (1986) height had significant and negative correlation with 1500 m endurance running performance, Review 145

**Table 3-**Correlations of anthropometric variable and performance in 5000m for junior male athletes

| Anthropometric variables | | Perf | S6SFM (upper body) | S2SFM (lower body) | S8SFM (Up & Lo Body) | PBF |
|---|---|---|---|---|---|---|
| Perf | Pearson Correlation | 1 | -.339* | -.364* | -.352* | -.280 |
| | Sig. (2-tailed) | | .050 | .034 | .041 | .109 |
| | N | 34 | 34 | 34 | 34 | 34 |
| *. Correlation is significant at the 0.05 level (2-tailed). | | | | | | |
| **. Correlation is significant at the 0.01 level (2-tailed). | | | | | | |

Table 3- has shown correlation between athletes' sum of 6 skinfold measure, sum of 2 skinfold measure, sum of 8 skinfold measures and

percent body fat with their 5000m race performance. It was found that all the variables have shown a negatively moderate association with 5000m race performance, but a significant association was observed for sum of 6 skinfold measure for upper body $r = -0.34$, $N = 34$, $p < .05$, sum of 2 skinfold measures for lower body $r = -0.36$, $N = 34$, $p < .05$ and sum of 8 skinfold measures for upper and lower body $r = -0.35$, $N = 34$, $p = .05$. A non-significant correlation was observed between athletes' percent body fat and their 5000m race performance. As can be seen from the result of this study athletes with a relatively higher score for sum of 6 skinfold measure for upper body, sum of 2 skinfold measures for lower body and sum of 8 skinfold measures for upper and lower body performed less in 5000m run. This result is well supported by P. Bale et.al (1986) who studied sixty male 10km run athletes. These scholars concluded that the most able runners were lighter than those in the other two groups and significantly smaller skinfold values (P less than 0.05). Conversely, for Alejandro L. Arrese and Enrique S. Ostariz, (2006) AR18 who studied the association of skinfold thickness with distance running performance in highly trained runners of 1500m – 10000m concluded that, for all distances, the sum of six skinfolds was not significantly correlated with performance. In the same study, these scholars assessed the skin fold thickness in the lower limb as positively related to performance and even to be used as a predictive factor for all distance runners.

**Conclusions** From this study, it was concluded that, 5000m junior male athletes with a longer sitting and standing height score reported better performance in 5000m race. On the other hand, athletes with a higher skinfold measurement for upper and lower body as well as for total boy score reported less performance in 5000m race.

## Recommendations

1. According to the result of the study sitting height, standing height, sum of 6 skinfold measures, sum of 2 skinfold measures and sum of 8 skinfold measures have been found to have a significant association with race performance. Therefore, the above mentioned anthropometric characteristics of athletes must deserve due attention during talent selection, identification and development program for 5000m junior male athletes.
2. Similar study may also be conducted on female junior 5000m athletes
3. Similar study may also be conducted on the different anthropometric variables.
4. Similar study may also be conducted on the national or Intervarsity level subjects.

## Reference

Alejandro L. Arrese and Enrique S. Osta´riz. (2006). Skinfold thickness associated with distance running performance in highly trained runners. Journal of sports sciences, 24(1): 69 – 76.

Bloomfield, J., Fricker, Peter A. and Fitch, Kennet h D. (1995). Can running injuries be effectively prevented? Sci. Med. Sports. 1, 161.

Bojidar Spiriev and Attila Spiriev. (2014). IAAF scoring tables of athletics (revised edition), Printed by Multiprint – Monaco.

Gopal Chandra Saha .(2012). Comparative study of anthropometric measurements and body composition among individual and team game. Vol.01, Issue03. Banipur, W.B.India.

International Society for the Advancement of Kinanthropometry International Standards for Anthropometric Assessment. (2001). School of Physical Education, Exercise and Sport Studies. The University of South Australia.

Mathur, D.N. and Salokun, S.O. (1985). Body composition of successful Nigerian female athletes. J Sports Med 25: 27-21

P.Bale, D.Bradbury and E.Colley, (1986) Anthropometric and training variables related to 10km running performance. Brit.J.Sports Med.-Vol.20,No.4,December1986,pp.170-173

Saha Gopal Chandra. (2012). Comparative Study of Anthropometric Measurements and Body Composition among Individual and Team Game. International Journal of Behavioral Social and Movement Sciences. Vol.01,Issue03, pp. 69-74.

Soman Preet Singh. (2015). Relationship among the anthropometric variable and jumping performance in track and field. Sri Guru Granth Sahib World University, Fatehgarh Sahib, Punjab, India.

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN : 2277-7881; IMPACT FACTOR – 4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# ॥ज्यौतिश्शास्त्रानुसारेण तृतीयदशमभावविचारः॥

PRASANTH PS
ResearchScholar
Dept .Of .Jyothisha
R.S.Vidyapeetha,Tirupati
pssasthri@gmail.com

कालात् प्रसूतोऽयं विश्वः कालः एव परिवर्द्धितः परिचलिततश्च। कालेन विना कोऽपि जीवः जगति स्थातुं न शक्नोति । तथा कालस्य ज्ञानं ज्यौतिश्शास्त्रेण विना न भवितुमर्हति। अत एव भास्कराचार्येण शास्त्रस्यास्य व्याख्यानावसरे **कालतन्त्रं जगुः** इत्थं परिभाषितम्। वेदाङ्गज्यौतिषे आचार्यलगधेनापि उक्तं **"वेदाः यज्ञार्थमभिप्रयुक्ताः,यज्ञादयः कालमपेक्षन्ते,कालो ज्यौतिश्शास्त्रस्य विषयः"** इति। सन्त्यत्र ज्यौतिषशास्त्रस्यास्य बहूनि प्रयोयजनानि, येन मानवस्य बहुविधकार्यस्य सिद्धिर्जायते। कृषिकर्मणि बीजवपनादारभ्य सस्यकर्तनं, यावज्ज्यौतिशास्त्रस्यावश्यकता पदे-पदे अनुभूयते। यथोक्तं अन्यानि प्रयोजनानि ज्यौतिषबोधे यत् ग्रह-ग्रहण संक्रान्तियज्ञव्रतोद्वाहादि क्रियाणां सिद्धिः निर्णयश्चानेन शास्त्रेणैव संभवति।

राशयः, ग्रहाः भावाः इमे फलितज्ज्यौतिशास्त्रस्याधारभूताः। एषु राशिः, अनादि आद्यन्तरहिता च। जातकस्य जन्म आरभ्य मरणावधिपर्यन्तमेव भावस्थिः। जातकस्य जन्मकाले पूर्वाभिमुखं या बिन्दुः भूभागं स्पृशति तस्मात् भावारम्भः जायते। भूभागस्पृष्ट भागः लग्नमिति नाम्नाभिधीयते।**"लगति इति लग्नम्"** । तन्लग्नं प्रथमभावः तस्मात् द्वादश भावाः प्रारम्भ्यते। एषु द्वादशभावेषु एकस्य मनुष्यस्य जननात् मरणावधिकालेषु अनुभूयमान सुखः-दुखः,शुभाशुभाद्यवस्थां सूचयति। जातकस्य शरीर, कुटुंब, सहोदरः, वीर्यः, बन्धुः, पुत्रः, शत्रुः, जाया, मरण, रिफः, लाभः, व्ययादि विषयाः द्वादशभावेन विचिन्तनीयाः। तदनुरोधैवाऽस्य जातकस्य शुभाशुभभलानि जायते। भावेषु स्थित ग्रहाणां, कारकाणां, भावेक्षितः, भावाधिपेन युक्तशुभापापग्रहाच्च शुभाशुभ फलविचारः करणीयः।

।। **तृतीयभावविचारः** ।।

**"धैर्यं वीर्यञ्च दुर्बुद्धिः सहोदरपराक्रमौ ।[1]**

**दक्षकर्णसहायौ च चिन्तनीयं तृतीयता ।।**

तृतीयभावेन धैर्यवीर्याधिकम् ,सहोदरशुभाशुभत्वं पराक्रमश्च, दक्षकर्णः इत्यादिविषयाः चिन्तनीयः।

तृतीय भावस्य विक्रमः-पराक्रमः इत्यादि नाम्नाभिधीयन्ते। जातकस्य भविषत्काले कथं तस्य आजीविका ,तस्य शूरतां,वीरतां च ज्ञातुं शक्यते । एवं च जातकस्य कार्यक्षेत्रं, आत्मबलमित्यादिविषयश्चाऽस्यभावेन ज्ञातुं शक्यते।

**तृतीयभावेशफलम्**

तृतीयेशः लग्नस्थितश्चेत् जातकः पुरुषार्थसाधकः,धनी,साहसी,बुद्धिमान् च भवति। तृतीयेशः द्वितीये परदारार्थलोलुपः,पराक्रमरहितः, स्थूलः सौख्यरहितश्च।

तृतीयेशः तृतीये विक्रमी,भ्रातृसौख्ययुतः,तथा धनपुत्रादि सम्पत्तियुक्तः। तृतीयेशः चतुर्थभावे जातकः सुखी,धनाढ्यः, धीमान् एवं च तस्य पत्नी क्रूरा भवति। तृतीयभावेशः पञ्चमभावस्थिते सति जातकः गुणी,पुत्रसौख्ययुतः। सहजेशेन सहित पापयुक्त,पापदृष्टग्रहश्चेत् तस्य पत्नी क्रूरा भवति। सहजेशः षष्टस्थिते सहोदर वैरः,मातुलात् सुखाभावः,महाधनवान्,च नरः। सहजेशः कामगतश्चेत्जातकः बाल्यादेव दुखी पश्चात् सुखमनुभवति, तथा राजानुगामी च नरः। तृतीयेशः अष्टमभावस्थितश्चेत् स्त्रीद्वारा भाग्योदयः । जातकः पितृसौख्यविहीनश्चेतपि पुत्रसम्पत्तिषु परिपूर्णः। कर्मभावस्तितः तृतीयेशः स्वीय बाहुबलेन धनान् आर्जयति, अनेकविध सौख्यसंपूर्णः, दुष्टस्त्रीपरिपोषणरतोऽपि जायते अयं नरः। सहजेशः आयभावस्थिते सति जातकः मूर्खः, दुर्बलः, रोगी, साहसी, परसेवकः, एवं च स्वीय भुजबलेन धनोपार्जनं च क्रियते। सहजेशः व्ययगतश्चेत् दुर्व्ययी, तस्य पिता निष्ठुरः तथा च स्त्रीसंसर्गात् तस्य भाग्योदयोऽपि जायते।

[1] प्रश्नमार्गः 14-1

**।। सहज विचारः।।**

विशेषफलदीस्या तृतीयभावेन सहजविचारः क्रियते। वस्तुदस्तु अस्य भावेन कनिष्ठः भ्रातृणां, कनिष्ठा भगिनीनां च विषयमाधारीकृत्यैव फल विचारः। अस्य भावेन भ्रातृभगिनीयोगः, भ्रातृनाशः, भ्रातृवृद्धिः, सहोदराणां संख्या, रोगसुखसौख्यादिकं चिन्त्यते। लग्न अथवा लग्नेशात् तृतीयैकादशभावेषु बुधमङ्गलबृहस्पति योगात् अधिकसहोदराः। अत्र केतु बन्धश्चेत् सहोदीअधिकाः भवन्ति।

**भ्रातृलाभः -**

**सौत्थेशे स्वर्क्षे सौम्यदृष्टे भ्रातृमान्।**[2]

**सौत्थेशे सशुभे केन्द्रे भ्रातृसुखम्।**

**सौत्थे शुभैर्युते वा सौत्थपे बलिनि भ्रातृलाभः।**

**भ्रातृपे कारके वा वलिनि शुभसम्बन्धे भ्रातृलाभः।**

**सौत्थे सौत्थपे बलाढ्ये भ्रातृ लाभः।**

**सहोदरहानियोगः**

तृतीयेशः षष्टाष्टमद्वादश भावेषु, षष्टाष्टमद्वादश भाव स्थितिवशात् भ्रातृहानिः। तृतीयभावे पापग्रहयोग दृष्टिवशात्। तृतीयेशःनवांशकाधिपतिःषष्टभा नीचास्तंगतवशत्। तृतीयेशः तृतीयभावकारकः,त्रिकस्थाने पापग्रहैर्युक्तोऽथवा पूर्वोक्तस्थानेषु उच्चंगतश्चेदपि भ्रातृ नाशः वक्तव्यः। बुधसंयुतः सहजेशः,सहजेशेन सहितः चन्द्रः,भ्रातृकारकः शनिना सह स्थितश्चेत् जातकस्य अग्रे एका भगिनी पश्चात् सहोदराः भवन्ति। भ्रातृकारकः, राहुणा सहयुक्तः सहजेशः नीचगतश्चेत् जातकस्य पश्चात् सहोदराभावः।परं च जातकस्य ज्येष्ठसहोदराः भवन्ति। तृतीयेशः केन्द्रस्थः,भ्रातृकारकग्रहाःतस्य केन्देषु गुरुणा सह

[2] जातकतत्वम् 2-24

उच्चराशिगताश्चेत् द्वादशसंख्यकाःपुत्राः भवन्ति। आयेशयुतः मंगलः गुरुणासमन्वितः तथा सहजस्थानगतः चन्द्रश्चेत् सप्तसंख्यकाः सोदराः भवन्ति। सहजस्थानगतश्चन्द्रः पुरुषग्रहेण वीक्षितश्चेत् सहोदराः, शुक्रेण सह वीक्षितश्चेत् सोदरी च भवन्ति।

**।।तृतीयभावेन जातकस्य आजीविका विचारः।।**

**अंशे रविशुक्रदृष्टे राजप्रेष्यः।**[3]

**अंशात्खे ज्ञदृष्टयुते राजप्रेष्यः।**

**सूर्यारमन्दैः शुभदृष्टिहीने कर्मगैभृतकः।**

**मन्दांशे नीचभे शुक्रव्यये चन्द्रार्कौभृतकः।**

**दशमगैः पापैः सौम्यदृष्टैर्भृतकः।।**

आत्मादिकारकग्रह नवांशके सूर्यशुक्रदृष्टिश्चेत् राजकीयसेवासु निरतः।अस्सात् स्थनात् दशमस्थाने बुधदृष्टश्चेदपि जातकः राजसेवकः। सूर्यमंगलशनि दशमभावेशुभग्रःदृष्टिविहीनश्चत् जातकः कर्मचारी। शनिनवांशके नीचराशौ शुक्रः श्चन्द्रः व्यये चन्द्रार्कौ स्यातां जातकः भृतकः। दशमभावस्थितपापग्रहेषु शुभग्रहदृष्टिविहीनेसति जातकः सेवकवृत्या आजीवनं यापयति।

।।दशमभावविचारः।।

दशमभावमधिकृत्या बहूनां विषयाणां चर्चाः विचारिताः। परञ्च विशेषथा जातकस्य कर्ममधिकृत्यैव भावविचिन्तनं चर्च्यते।

**देवालयनगरसभामार्गालयदाससर्वकर्माणि।**[4]

**आज्ञालम्बनमेतत्सर्वं चिन्तनीयं हि दशमेन।।**

[3] जातकतत्वम्-सहजविवेकः41,45

[4] प्रश्नमार्गः 14-12

प्रश्नमार्गाचार्याणां मतानुसारं दशमभावेन देवालयः, नगरः, सभा, मार्गः, दासः, कर्मः, आज्ञाशक्तिः इत्यादिविषयाः विचारणीयः। जातकतत्वानुसारेण राज्यकार्यपदः, व्यापरमुद्रा, राजप्राप्तिः, पिता, महत्प्राप्तिः, वृष्टिः, विदेशवासः, कार्यसम्पन्नतां च विचारयेत्।

**राज्यपदव्यापारमुद्रानृपमानराज्यपितृमहत्पदाप्तिः पुण्यकीर्तिः।[5]**

**विशिष्टप्रवृत्तिप्रवासकरमजीवजानुपूर्त्यादिदशमभावचिन्तनम्॥**

यति दशभावः अथवा दशमेशः शुभग्रहयुतश्चेत् जातकः मानशीलः। तथा दशमेशः शुभग्रहान्तराले जातकः मानी। दशमेशः वैशेषिकांशे तु जातकः मानशीलः।(जा-त-दशमविवेकः)

**।।दशमभावेन कर्मचिन्ता।।**

[6]दशमभावे सूर्यश्चेत् पितृधनं लभ्यते, दशमे चन्द्रश्चेत् मातृधनं, कुजेन शत्रुद्वारा धनाप्तिः, बुधेन मित्रद्वारा, गुरुणा सहोदरात् धनाप्तिः, शुक्रेण स्त्रीद्वारा अर्थाप्तिः, शनिना भृत्यद्वारा च धनागमः विचारणीयः। लग्नात् वा चन्द्राद्वा सूर्यस्य दशम भावाधिपतेः नवांशकादिपेन यत्कर्ममुक्तं तदनुसारेणैव कर्मप्राप्तिः।

दशमभावाधिपतेः नवांशकादिपतिः सूर्यश्चेत् तृणैः, सुवर्णैः, कम्बलवस्तूनामुपजीवनेन तथा भैषज्यवृत्या धनार्जनं यापयति। दशमभावाधिपति चन्द्रश्चेत् कृषिवृत्या, जलोत्पन्नवस्तूनां क्रयविक्रयेण अङ्गनाश्रयकर्मणा तु कर्मजीवः। कुजश्चेत् धातुक्रियया, अग्निपिरहरेण साहसवृत्या, स्पोटकवस्तूनां निर्माणप्रवर्त्या कर्मजीवोयापयति। बुधेन लिपिकारवृत्या, लेखनवृत्या, गणितवृत्या, काव्यादिरचना वृत्या, शिल्पविद्यया च उपजीवनं यापयति। गुरुः कर्मणाविबुधवृत्या सुवर्णादीनां लवणादीनां, समुद्रोत्पन्नस्थानेभ्यः कर्मजीवः चिन्तनीयः। शुक्रेण मणीनां रजतानां क्रयविक्रयेण, सुगन्धद्रव्याणां क्रयविक्रयेण

[5] जातकतत्वम्-दशमविवेकः 1
[6] बृहज्जातकम् 20-1

अलङ्कारादि वस्तूनां व्यापारेण, गोमहिषादीनां परिपालनेन, आजीविका भवति। शनि तु दैहिकपरिश्रमवृत्तिः, वधः, शिल्पविद्यया च उपजीवनम्।(बृ-जा-20-12,13)

**।।सूर्यादिग्रहाणां दशमभावस्थितिवशात् उद्योगविचारः।।**

दशमभावः सूर्यस्तितश्चेत् बहुबुद्धिमान्, धनवाहनादि सत्कीर्तियुक्तः। नृत्यगीतादिकुशलः, सुखशौर्युतः। दशमेचन्द्रश्चेत् सुखधनसन्तोषयुक्तः, कार्यारम्भकुशलः, शूरश्च। बुद्धियुक्तः, कर्मनिरतः, पण्डितः, गुरुजनहितकारी, सत्ययुक्तः, सुखधनकीर्तियुक्तः, दशमेबुधः। धनयुक्तः, पण्डितः, सिद्धारम्भः, धार्मिकः, सर्वकर्मसु कुशलः, सुखवाहनयशोयुक्तः दशमभावे गुरुः। कर्मभावगतेशुक्रे उद्यानादिविषययुक्ताः अङ्गनाश्रयाद्वा, कृषिवृत्यावा उपजीवः। सुकर्मनितरः सुखभोगयुक्तः, वस्त्रालङ्कारसौख्यान्वितः ख्यातः। दशमभावे शनिश्चेत् वृन्दपुर ग्रामादि संस्थायाः नायकः दण्डनायकः धनसौख्ययुक्तः नेता च भवति।

**।।राशिवशात् कर्म चिन्ता।।**

मेषराशिः, मेषवर्गश्च दशमभावश्चेत् आरामपरिपालनकृत्यं, सेवनवृत्या, वणिजवृत्या च जीवनमार्जयति। वृषभराशिः दशमभावश्चेत् शकटेन एवं पशुपक्ष्यादीना पालनेन, दान्यादिसंग्रहणेन जाङ्गलदेशे च उपजीवयति। दशमभावः मिथुनश्चेत् जलोत्पन्नवस्तूनां क्रयविक्रयेण लिपिगणितादि लेखनवृत्या च उपजीवनम्। कर्कराशिः दशमश्चेत् शस्त्राणां प्रयोगेण अथवा क्रयविक्रयेण अग्निसम्बन्धवृत्या, वैश्यवृत्या वा मौक्तिकवस्तूनां क्रयविक्रयेणच आजीविका। दशमभावः सिंहश्चेत् मणीनां संपादनेन, पाषाणसुवर्णादि इतरद्रव्याणां क्रयविक्रयेण, कृषिवृत्या धनव्यापारेण आजीविका। शकडचालनेन, रत्नादिव्यापारेण, सुवर्णादिलोहवस्तूनां व्यापारेण, संगीतादि कलामार्गेण उपजीवनम् कन्याराशिः दशमश्चेत्। तुलाराशिः दशमभावश्चेत् उपदेशप्रदानेन सुवर्णधातूनां परिवर्तनेन नानाविधव्यवहारेण वाणिज्यवृध्या गोमहिषादीनां परिपालनेन आजीविका। वृश्चिकराशीदशमश्चेत् अङ्गनाश्रयकर्मणा, कार्षिकवृत्या, नृपसेवया, वैद्यवृत्या, लोहव्यवहारेण, धान्योपजीवनेन वा धनागमः। धनुराशिः दशमश्चेत् मन्त्री, दुर्गादिसंरक्षक

कार्येषु नियुक्तः, पशुमृगाद्युपजीवनवृत्तियुक्तः, यन्त्रवस्त्रगणितवैद्यादि वृत्तियुक्तः। दशमभावः मकरश्चेत् जलोत्पन्नवस्तूनां व्यापारेण धनवान्, आरामादि वृक्षरोहणेवा, रसायनिर्माणप्रवृत्यां उद्योगः। दशमभावः कुम्भस्चेत् आयोधन तथा बहुविध अग्निविशेषण, घननप्रवृत्या, चौरप्रवृत्या, भारवाहनवृत्या च उपजीवनम्। दशमभवः मीनश्चेत् व्यापारेण, वेश्यावृत्या, अश्वादिमृगाणां क्रयविक्रयेण वृत्तिः वाच्यः।

**परिशीलितत ग्रन्थसूची-**

**बृहज्जातकम्**, - व्याखाकारः केदारदत्त जोशी ,मोत्तालाल् बनारसीदास् प्रकाशन्,नवदिल्ली- 110007

**बृहत्पराशरहोराशास्त्रम्**- दैवज्ञः देवेन्द्र झा, चौखम्पा प्रकाशन् वारणासी-221001

**मानसागरी** - डां रामचन्द्र पाठक्, चौखम्पा प्रकाशन्, वारणासी-221001

**सारावली** -एन् .इ.मुत्तुस्वामी,भाग्याप्रकाशन्,तिरुवनन्तपुरम्,केरलम्

**प्रश्नमार्गः** । आचार्य गुरुप्रसाद् गौड, चौखम्पा प्रकाशन्, वारणासी-221001

**जातकतत्वम्** -डां सुरेशचन्द्र मिश्र, रंजन् प्रकाशन्,नवदिल्ली-110002

**जातकपारिजातः**-पण्डित श्रीकपिलेश्वरशास्त्री,चौखम्पा संस्कृत संस्थान् वारणसी-221001

**जातकसारदीपः**-डां सुरेशचन्द्र मिश्र, रंजन् प्रकाशन् ,नवदिल्ली-110002

**जातकभूषणम्** - डां सुरेशचन्द्र मिश्र, रंजन् प्रकाशन् ,नवदिल्ली-110002

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN : 2277-7881; IMPACT FACTOR – 4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# PROTOLYTIC EQUILIBRIA OF L-ORNINTHINE AND ETHYLENEDIAMINE IN PG-WATER MIXTURES

**Hadgu Hailekiros Belay**
Applied Chemistry
Adama Science and Technology University
Adama, Ethiopia

**Toshome Abdo Segne**
Applied Chemistry
Adama Science and Technology University
Adama, Ethiopia

## Abstract

The protonation constants of L-ornithine(Orn) and ethylenediamine(en) were studied potentiometrically in various concentrations (0–60 % v/v) of PG–water mixtures maintaining an ionic strength of 0.16 mol/l at 303 ± 0.1 K. The stability constants of the ligands have been calculated with the computer program MINIQUAD75. Selection of the best fit chemical model of the protonation equilibria is based on statistical parameters such as standard deviation (SD) in protonation constants and residual analysis using crystallographic R-factor and sum of squares of residuals in all mass balance equations. The protonation constant varied linearly with inverse of dielectric constants of the solvent mixture and this shows that electrostatic forces are dominant in the solute-solvent interaction. Distribution of species, protonation equilibria and effect of influential parameters on the protonation constants have also been discussed.

**Keywords**: Protonation equilibria, MINIQUAD75, PG, L-ornithine, Ethylenediamine.

## INTRODUCTION

The acido basic equilibria of amino acids and their metal complexes in media of varied ionic strength, temperature, dielectric constant may help to provide information on the mechanism of enzyme

catalysed reactions. L-ornithine is a tridentate amino acid containing nitrogen donor group in the side chain in addition to the nitrogen donor group found on the α-carbon. The nitrogen donor atoms can associate with hydrogen ions in the physiological pH range. Hence, there is often significant competition between hydrogen and metal ions for these donor sites which leads to the existence of a number of equilibria. This phenomenon may result in successively protonated complexes. So, the protonation/deprotonation equilibria of Orn is useful in understanding the metal ligand equilibria associated with this ligand.

Amines are important in food conservation, medicine, biochemistry and industry. Excess quantities of amines in biological fluids and tissues can be used as indicators of disease. Amines occur in cellular processes and aid in stabilization of structure of tRNA and DNA. Natural water and biological fluids contain trace amounts of amines[1-4]. Ethylenediamine is used in the manufacture of EDTA, carbamate fungicides, surfactants and dyes[5,6]. The protonation constants of en in aqueous media[7-8] and acetonitrile-water mixtures[9] were reported in the literature.

1, 2-Propanediol is also known as propylene glycol (PG), monopropylene glycol, 1, 2-dihydroxy propane and trimethyl glycol as trade names. It belongs alcohol family along with the more familiar compounds ethanol (drinking alcohol) and isopropyl (rubbing) alcohol[10]. PG is a colorless, odorless, water-soluble protophilic dipolar protic solvent and acts as a structure former of water. PG is more acidic than water[11] due to electron withdrawing effect of $CH_2$ group[12].

PG is widely used with diverse applications. It is one of the most commonly used humectants that has high affinity for water and have stabilizing action on the water content of a material. It is used to maintain moisture within a narrow range in certain food products such as coconut and mallows as well as in tobacco[13]. It has been extensively

employed in pharmaceutical industry as a solvent for drugs, as a stabilizer for vitamins and in pastes for medicinal purposes. It is also used to absorb extra water and maintain moisture in certain cosmetics and is a solvent for food colors and flavors[14]. It is used in antifreeze and deicing solutions. It is used as a solvent in the paint and plastics industries and to make polyester compounds. It is used as a substitute for ethylene glycol, monoalkyl ethers in all purpose cleaners, coating, inks, nails polish lacquers, latex paint and adhesives. It is also used to create artificial smoke or fog used in fire-fighting training and in theatrical productions[15]. PG is used as a chemical intermediate in the production of unsaturated polyester resins and liquid detergents. It is one of the chemicals generally recognized as safe by the U.S. Food and Drug Administration.

## EXPERIMENTAL

### Materials and methods

Solutions (0.05mol/l) of Orn (Merck, India) and en (Finar, India) were prepared in triple-distilled water by maintaining 0.05 mol/l Hydrochloric acid concentration to increase the solubility. PG (Qualigens, India) was used as received. 0.2 mol/l Hydrochloric acid (Merck, India) and 0.4 mol/l Sodium hydroxide (Merck, India) were prepared. 2.0 mol/l Sodium chloride (Qualigens, India) was prepared to maintain the ionic strength in the titrand. Acid and alkali solutions were standardized by standard methods. To assess the errors that might have crept into the determination of the concentrations, the data were subjected to analysis of variance of one way classification[16].

### Modeling Strategy

The initial estimates of protonation constants of Orn and en were calculated with the computer program SCPHD[17]. The best fit chemical model for each system investigated was arrived at using non-linear least-squares computer program, MINIQUAD75[18] and the distribution diagrams were drawn with HYSS HYPERQUAD suite program[19].

**Table 1** *Best-fit chemical models of protonation equilibria of Orn and en in PG–water mixtures*

| %v/v PG | $Log\beta_1$(SD) | $Log\beta_2$(SD) | $Log\beta_3$(SD) | NP | $U_{corr}$ x$10^8$ | $\chi^2$ | Skewness | Kurtosis | R-factor |
|---|---|---|---|---|---|---|---|---|---|
| | **Orn (pH 2.0 10.4)** | | | | | | | | |
| 00.0 | 10.56(3) | 18.90(0) | 20.83(0) | 55 | 2.67 | 4.01 | - 0.17 | 3.63 | 0.00896 |
| 10.0 | 10.03(2) | 18.57(1) | 20.59(2) | 44 | 5.77 | 6.11 | -0.72 | 3.22 | 0.01500 |
| 20.0 | 10.02(0) | 18.46(3) | 20.88(3) | 57 | 6.15 | 3.54 | 0.44 | 3.05 | 0.00794 |
| 30.0 | 09.93(1) | 18.22(2) | 20.47(2) | 53 | 8.40 | 2.77 | -0.33 | 3.80 | 0.00950 |
| 40.0 | 09.80(0) | 18.00(0) | 20.44(1) | 60 | 7.00 | 8.63 | 0.22 | 2.05 | 0.01853 |
| 50.0 | 09.72(4) | 17.55(7) | 20.29(0) | 52 | 4.93 | 4.87 | -0.11 | 3.44 | 0.01201 |
| 60.0 | 09.61(4) | 17.49(1) | 20.18(5) | 70 | 5.83 | 6.66 | -0.33 | 4.37 | 0.00732 |
| | **en (pH 5.0-10.6)** | | | | | | | | |
| 00.0 | 10.204(1) | 17.20(1) | | 32 | 8.10 | 6.33 | -0.70 | 3.00 | 0.02126 |
| 10.0 | 10.18(2) | 17.35(2) | | 40 | 7.44 | 8.22 | -0.35 | 4.20 | 0.02139 |
| 20.0 | 09.97(0) | 16.77(3) | | 55 | 8.44 | 9.99 | -0.90 | 4.34 | 0.02284 |
| 30.0 | 09.88(3) | 16.88(3) | | 70 | 8.30 | 5.69 | 0.29 | 3.59 | 0.02120 |
| 40.0 | 09.77(3) | 16.73(3) | | 50 | 6.64 | 9.90 | -0.50 | 4.39 | 0.02097 |
| 50.0 | 09.84(1) | 16.77(2) | | 49 | 7.50 | 7.80 | -0.55 | 5.00 | 0.02001 |
| 60.0 | 09.82(1) | 16.58(1) | | 49 | 7.88 | 4.60 | 0.53 | 6.49 | 0.02155 |

$U_{corr} = U/(NP - m)x10^8$ Np=number of points, *m* number of protonation constants, SD standard deviation

## RESULTS AND DISCUSSION

Secondary formation function shows the presence of three and two protonation-deprotonation equilibria for Orn and en, respectively, in the pH range of the study. The number of plateaus in the formation curves shown in Fig. 1 corresponds to the number of equilibria. In the modeling strategy the dimeric forms of the ligand $L_2H_X$ are not considered as there is no drift observed in the formation curves. The results of the best fit models along with the statistical parameters are given in Table 1.

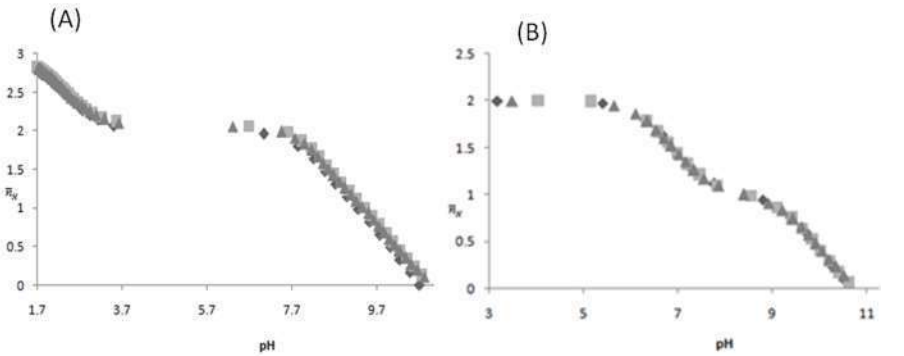
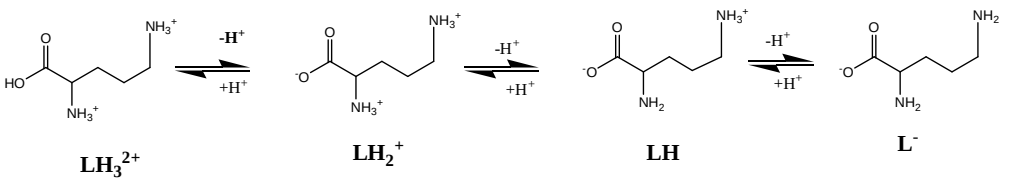
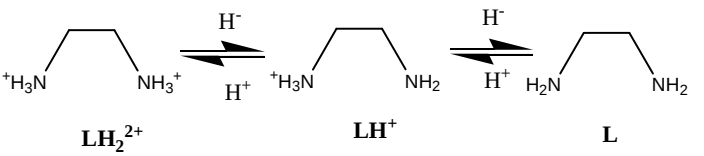



**Fig. 1** Plots of $\bar{n}_H$ versus pH in 20% v/v PG–water mixture; A) Orn and B) en (◊) 0.25, (□) 0.375, and (Δ) 0.50 mmol




**(A)**

**pH range** : **1.85-4.3** **1.85-10.03** **6.3-10.5** **8.3-10.7**




**(B)**

**pH range: 5.0-8.1 7.0-10.2 8.0-10.3**

Fig. 2 Protonation–deprotonation Equilibria of A) Orn and B) en

Orn exists in cationic, zwittrionic and anionic forms, whereas en can exist only in cationic or neutral form (Fig. 2) at different pH ranges. The cation stabilizing nature of co-solvent and decreased dielectric constant of the medium with increasing co-solvent are responsible for linear increase or decrease of the log K values.

## Effect of Systematic Errors

MINIQUAD75 does not have an in-built provision to study the effect of systematic errors in the concentrations of ingredients and electrode calibration on the magnitude of equilibrium constants. In order to rely upon the best fit chemical model for critical evaluation and application, a brief investigation was made by introducing pessimistic errors in influential factors such as the concentrations of mineral acid, ligand and alkali. This type of analysis is useful because the data acquisition is done under varied experimental conditions with different accuracies. Results of typical systems shown in Table 2 emphasize that protonation constants of carboxyl group is more affected. This may probably due to their lower magnitude than those for amino protons. Similarly, errors in concentrations of alkali and acid affect more than other factors. With the introduction of errors, the SD's are found to increase inferring the appropriateness of experimental conditions and correctness of analytical concentrations.

**Table 2** *Effect of errors in influential parameters on protonation constants in 30 % v/v PG– water mixture*

| Ingredient | Orn | | | | | en | |
|---|---|---|---|---|---|---|---|
| | % Error | $Log\,\beta_1(SD)$ | $Log\,\beta_2(SD)$ | $Log\,\beta_3(SD)$ | | $Log\,\beta_1(SD)$ | $Log\,\beta_2(SD)$ |
| | 0 | 10.00(1) | 18.98(0) | 20.85(2) | | 09.93(1) | 16.77(1) |
| Alkali | –5 | 10.52(4) | 19.37(7) | 22.10(11) | | 10.28(2) | rejected |
| | –2 | rejected | 18.81(3) | 21.36(10) | | 10.04(1) | 17.00(3) |
| | + 5 | rejected | 17.34(11) | rejected | | 09.52(3) | rejected |
| | + 2 | 09.83(4) | 18.11(2) | rejected | | 09.76(2) | rejected |
| Acid | –5 | 09.58(9) | 17.62(6) | rejected | | 09.47(4) | 15.91(7) |
| | –2 | 09.84(5) | 18.13(6) | 20.14(6) | | 09.72(2) | 16.46(5) |
| | + 5 | 10.44(9) | 19.35(10) | 22.20(12) | | 10.33(2) | 17.67(4) |
| | + 2 | 10.39(4) | 19.22(5) | 21.99(9) | | 10.09(1) | 17.11(6) |
| Ligand | –5 | 09.97(4) | 18. 49 (9) | 20.96(9) | | 09.99(7) | 17.01(2) |
| | –2 | 09.98(3) | 18.49(6) | 20.87(6) | | 09.99(1) | 16.86(3) |
| | + 5 | 10.03(4) | 18.46(6) | 20.69(10) | | 09.87(2) | 16.55(5) |
| | + 2 | 10.02(9) | 18.47(5) | 20.77(10) | | 09.89(2) | 16.72(4) |
| Log F | –5 | 09.989(3) | 18.45(6) | 20.68(3) | | 09.87(7) | 16.70(7) |
| | –2 | 10.021(4) | 18.4(4) | 20.79(3) | | 09.93(4) | 16.79(6) |
| | + 5 | 10.03(8) | 18.55(7) | 20.93(9) | | 09.92(5) | 16.88(3) |
| | + 2 | 10.04(3) | 18.55(7) | 20.87(6) | | 09.91(4) | 16.83(8) |

## Effect of Dielectric Constant of Medium

The standard free energy of protonation equilibria consists of electrostatic and non electrostatic terms. The electrostatic term can be estimated with Born classical treatment. When the electrostatic effects predominate, then in accordance with the Born equation, the plot of (log K) versus reciprocal of dielectric constant of the media 1/D should be linear.

The plots of log *K* versus reciprocal of dielectric constant of the medium, 1/*D*, shown in Fig. 3, are linear for both ligands. This shows that in this system electrostatic effects predominate, which is in accordance with the Born equation.

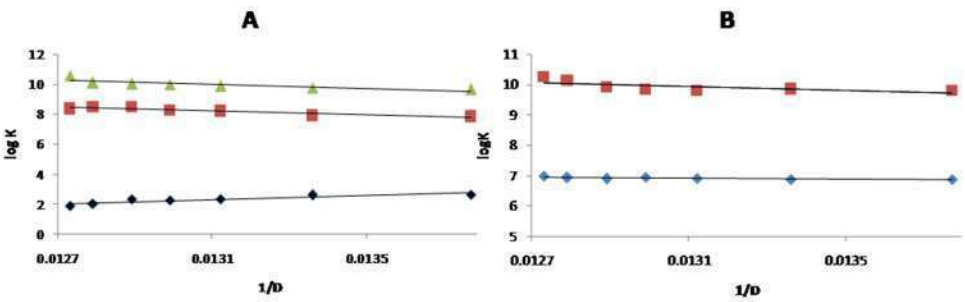



**Fig. 3** Variation of step-wise protonation constants (log K) with reciprocal of dielectric constant (1/D) in PG–water mixture, (A) Orn (◊) log $K_1$, (□) log $K_2$ and (Δ) log $K_3$ and (B) en (◊) log $K_1$, (□) log $K_2$.

The protonation constants of Orn and en in water-PG mixed solvents show different behavior (Table 1). The protonation constant of the α-amino, $K_2$, and the side chain amino, $K_3$, groups of the Orn decreased as the solvent became enriched in the organic component, but the protonation constant of the carboxylic acid group, $K_1$, increased with PG content in the mixtures. In case of en for both the amino groups the protonation constants decreased as the composition of PG in mixed solvent increases.

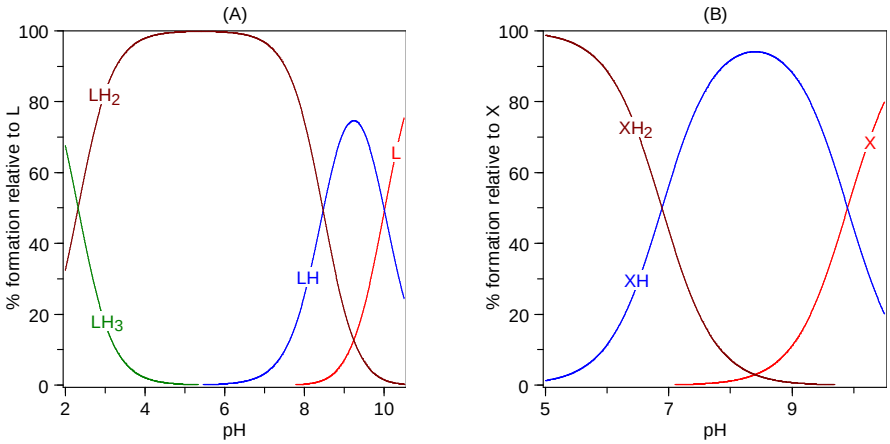



**Fig. 4** Species distributions of A) Orn and B) en in 20 % PG–water mixture (v/v)

## Distribution Diagrams

The species distribution curves for Orn and en are shown in Fig. 4 A & B. The representative distribution plot indicates the existence of $LH_3^{2+}$, $LH_2^+$, LH and $L^-$ for Orn and $XH_2^{2+}$, $XH^+$ and X in the case of en in different pH ranges. The $LH_3^{2+}$ of Orn decreases exponentially and exists up to a pH of 4.0. The $LH_2^+$ form is the most predominant species in the pH range 2.0–9.4 with concentration maxima of almost 98%. The monoprotonated species (LH) exists in narrow pH range (8.0–10.3) amounting 74.6% at pH 9.4. The $XH_2^{2+}$ of en exists up to a pH of 9.2. The monoprotonated species ($XH^+$) is paramount in the system over the pH range of 5.0–10.5 is 94.2%.

## CONCLUSIONS

L-ornithine forms $LH_3^{2+}$ at low pH and gets deprotonated with the formation of $LH_2^+$, LH and $L^-$ successively with increasing pH. Ethylenediamine forms $XH_2^{2+}$ at low pH and gets deprotonated with the formation of $XH^+$ and X with increase in pH. Secondary

formation functions indicate the number of protonation equilibria to be two and three for en and Orn, respectively.The linear increase of log values of protonation constants with decreasing dielectric constant of PG-water mixtures indicates the dominance of electrostatic forces in the protonation-deprotonation equilibria.

## REFERENCES

1. Russel, D. H. (1982) Clinical relevance of polyamines. *Crit. Rev. Lab. Sci.*, ***18***, 261-311.

2. Tabor, H. (1962) The protective effect of spermine and other polyaminesagainst heat denaturation of deoxyribonucleic acid. *Biochemistry*, ***1***, 496-501.

3. Maga, J. A. (1978) Amines in food. *CRC Crit. Rev. Food Sci. Nutr.,* ***4***, 373-404.

4. Lawrence, S. A. (2004) Amines synthesis, properties and applications. University Press, Cambridge, U. K.

5. Paoletti, P. (1984) Formation of metal complexes with ethylene diamine: a critical survey of equilibrium constants, enthalpy and entropy values. *Pure Appl Chem.,* **56**, 491–497.

6. Arash, L. Habibi M.H. Harrington, R.W. Morteza, M. William, C. (2006) Synthesis, structural and spectroscopic properties of a new Schiff base ligand N, N-bis (trifluoromethylbenzylidene) ethylenediamine. *J Fluorine Chem.,* **127**, 769–775.

7. Bjerrum, J. (1950) On the tendency of the metal ions toward complex formation. *Chem Rev,* **46**, 381–387.

8. Everett, D.H. Pinsent B.R.W. (1952) The dissociation constants of ethylenediammonium and hexamethylene diammonium Ions from 0 to 60 C. *Proc R Soc Lond,* **215**, 416–429.

9. Kumar, N.V., Rao, G.N. (2011) Effect of dielectric constant of medium on protonation equilibria of ethylenediamine. *Chem Speciat Bioavail,* **23**, 170–174.

10. SRI. CEH Product Review, Propylene Glycols, Chemicals Economics Handbook, 2000.

11. Latha M. P., Rao V. M., Rao T. S. and Rao G. N. Bull. Chem. Soc. Ethiop., **21**, 2007, 363.

12. Wells C. F. Thermochim. Acta, **53**, 1982, 67.

13. Van Nostrand's Scientific Encyclopedia, Vand Nostrand Reinhold, New York, 1989, p. 11479.

14. Zabetakis I. and Gramshaw J. W. Food Chem., **61**, 1998, 352.

15. ATSDR. "ToxFAQsTM for Ethylene Glycol and Propylene Glycol" Agency for toxic substances and Disease Registry, 1997.

16. Rao, R.S., Rao G.N. (2005) Computer applications in chemistry. *Himalaya Publishing House*, Mumbai, 277–351.

17. Rao, G.N. (1989) Complex equilibria of some biologically important metal ions in aquo-organic media. *Ph. D. Thesis, Andhra University*, Visakhapatnam.

18. Gans, P., Sabatini A., Vacca A. (1976) An improved computer program for the computation of formation constants from potentiometric data. *Inorg Chim Acta,* **18**, 237–239.

19. Alderighi, L. Gans, P. Ienco, A. Peters, D. Sabatini, A.Vacca, A. (1999) Hyperquad simulation and speciation (HySS): a utility program for the investigation of equilibria involving soluble and partially soluble species. *Coord. Chem. Rev.,* **184**, 311–318.

**Table 1** *Best-fit chemical models of protonation equilibria of Orn and en in PG–water mixtures*

| %v/v PG | Log$\beta_1$(SD) | Log$\beta_2$(SD) | Log$\beta_3$(SD) | NP | $U_{corr}$ x$10^8$ | $\chi^2$ | Skewness | Kurtosis | R-factor |
|---|---|---|---|---|---|---|---|---|---|
| | **Orn (pH 2.0 10.4)** | | | | | | | | |
| 00.0 | 10.56(3) | 18.90(0) | 20.83(0) | 55 | 2.67 | 4.01 | - 0.17 | 3.63 | 0.00896 |
| 10.0 | 10.03(2) | 18.57(1) | 20.59(2) | 44 | 5.77 | 6.11 | -0.72 | 3.22 | 0.01500 |
| 20.0 | 10.02(0) | 18.46(3) | 20.88(3) | 57 | 6.15 | 3.54 | 0.44 | 3.05 | 0.00794 |
| 30.0 | 09.93(1) | 18.22(2) | 20.47(2) | 53 | 8.40 | 2.77 | -0.33 | 3.80 | 0.00950 |
| 40.0 | 09.80(0) | 18.00(0) | 20.44(1) | 60 | 7.00 | 8.63 | 0.22 | 2.05 | 0.01853 |
| 50.0 | 09.72(4) | 17.55(7) | 20.29(0) | 52 | 4.93 | 4.87 | -0.11 | 3.44 | 0.01201 |
| 60.0 | 09.61(4) | 17.49(1) | 20.18(5) | 70 | 5.83 | 6.66 | -0.33 | 4.37 | 0.00732 |
| | **en (pH 5.0-10.6)** | | | | | | | | |
| 00.0 | 10.204(1) | 17.20(1) | | 32 | 8.10 | 6.33 | -0.70 | 3.00 | 0.02126 |
| 10.0 | 10.18(2) | 17.35(2) | | 40 | 7.44 | 8.22 | -0.35 | 4.20 | 0.02139 |
| 20.0 | 09.97(0) | 16.77(3) | | 55 | 8.44 | 9.99 | -0.90 | 4.34 | 0.02284 |
| 30.0 | 09.88(3) | 16.88(3) | | 70 | 8.30 | 5.69 | 0.29 | 3.59 | 0.02120 |
| 40.0 | 09.77(3) | 16.73(3) | | 50 | 6.64 | 9.90 | -0.50 | 4.39 | 0.02097 |
| 50.0 | 09.84(1) | 16.77(2) | | 49 | 7.50 | 7.80 | -0.55 | 5.00 | 0.02001 |
| 60.0 | 09.82(1) | 16.58(1) | | 49 | 7.88 | 4.60 | 0.53 | 6.49 | 0.02155 |

$U_{corr} = U/(NP - m)x10^8$ Np=number of points, *m* number of protonation constants, SD standard deviation

**Table 2** *Effect of errors in influential parameters on protonation constants in 30 % v/v PG– water mixture*

| Ingredient | Orn | | | | | en | |
|---|---|---|---|---|---|---|---|
| | % Error | $Log\,\beta_1(SD)$ | $Log\,\beta_2(SD)$ | $Log\,\beta_3(SD)$ | | $Log\,\beta_1(SD)$ | $Log\,\beta_2(SD)$ |
| | 0 | 10.00(1) | 18.98(0) | 20.85(2) | | 09.93(1) | 16.77(1) |
| Alkali | –5 | 10.52(4) | 19.37(7) | 22.10(11) | | 10.28(2) | rejected |
| | –2 | rejected | 18.81(3) | 21.36(10) | | 10.04(1) | 17.00(3) |
| | + 5 | rejected | 17.34(11) | rejected | | 09.52(3) | rejected |
| | + 2 | 09.83(4) | 18.11(2) | rejected | | 09.76(2) | rejected |
| Acid | –5 | 09.58(9) | 17.62(6) | rejected | | 09.47(4) | 15.91(7) |
| | –2 | 09.84(5) | 18.13(6) | 20.14(6) | | 09.72(2) | 16.46(5) |
| | + 5 | 10.44(9) | 19.35(10) | 22.20(12) | | 10.33(2) | 17.67(4) |
| | + 2 | 10.39(4) | 19.22(5) | 21.99(9) | | 10.09(1) | 17.11(6) |
| Ligand | –5 | 09.97(4) | 18. 49 (9) | 20.96(9) | | 09.99(7) | 17.01(2) |
| | –2 | 09.98(3) | 18.49(6) | 20.87(6) | | 09.99(1) | 16.86(3) |
| | + 5 | 10.03(4) | 18.46(6) | 20.69(10) | | 09.87(2) | 16.55(5) |
| | + 2 | 10.02(9) | 18.47(5) | 20.77(10) | | 09.89(2) | 16.72(4) |
| Log F | –5 | 09.989(3) | 18.45(6) | 20.68(3) | | 09.87(7) | 16.70(7) |
| | –2 | 10.021(4) | 18.4(4) | 20.79(3) | | 09.93(4) | 16.79(6) |
| | + 5 | 10.03(8) | 18.55(7) | 20.93(9) | | 09.92(5) | 16.88(3) |
| | + 2 | 10.04(3) | 18.55(7) | 20.87(6) | | 09.91(4) | 16.83(8) |

Table 3: *Protonation constants of Orn reported in DMF-water mixtures. Temp= 303 K,*

*Ionic strength=0.16 mol dm$^{-3}$*

| Solvent % v/v | log β1 | log β2 | log β3 |
|---|---|---|---|
| | | | |
| 0.00 | 10.53 | 19.38 | 21.22 |
| 10.0 | 10.36 | 19.11 | 20.98 |
| 20.0 | 10.39 | 19.11 | 21.24 |
| 30.0 | 10.28 | 18.97 | 21.30 |
| 40.0 | 9.95 | 18.40 | 20.81 |
| 50.0 | 10.01 | 18.55 | 21.25 |
| 60.0 | 9.72 | 18.34 | 21.73 |

**Table 4:** *Protonation constants of en reported in DOX-water mixtures. Temp= 303 K,*

*Ionic strength=0.16 mol dm$^{-3}$*

| Solvent % v/v | log β1 | log β |
|---|---|---|
| 0.00 | 10.08 | 17.21 |
| 10.0 | 9.91 | 16.94 |
| 20.0 | 9.80 | 16.58 |
| 30.0 | 9.88 | 16.77 |
| 40.0 | 9.70 | 16.50 |
| 50.0 | 9.47 | 16.12 |
| 60.0 | 9.50 | 16.31 |

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN: 2277-7881; IMPACT FACTOR –4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# A COMPARATIVE STUDY ON APPLICATION OF ARTIFICIAL INTELLIGENCE TECHNIQUES OF GEOGRAPHICAL INFORMATION SYSTEM (GIS)

**Suphal Murmu**
Research Scholar
Department of Geography
CMJ University, Jorabat, Meghalaya, Shillong

## ABSTRACT:

Geographical Information System (GIS), it is a decision support system that uses geographic databases to build and exhibit maps and other graphical displays that supports decisions affecting the geographic dispersion of people and other resources. It is more often than not, used along with global positioning system (GPS) devices to help them choose new retail store locations, optimize distribution routes, or examine the demographics of their target audiences. A spatial data system is a particular variety of GIS and may be seen as a database system in which most of the data are spatially indexed and upon which a set of procedures operates in order to resolve questions about spatial entities represented in the database.

**Key Words:** GIS, Geographic Databases, Geographic distribution, Global Positioning System (GPS), Spatial Information System,

## INTRODUCTION:

With the introduction of computers, the meaning of computation has got to change, earlier, which was confined to only computing, only today it includes paintings, text and many other types of targets. The data processor has now performed several types of application. The first propagation of computer involved numerical computing to solve scientific & technical problems. In this generation data usually consisted of sets of numbers with a simple social organization such as matrices and vectors.

The second generation of computer was characterized by commercial information processing which processed lots of sensitive data structure. The second generation facilitated record keeping, updating text, processing and preparation of reports.

The third generation of computer application was dominated by computing, data with pictorial and geometric objects. In turn, this contributes to the widespread usage of sophisticated user interfaces that depend on graphics, and to a rapid increase in applications such as computer assisted design (CAD), image processing and pattern identification (in medicine, cartography, robot control) that portion out with information embedded in place. Spatial Data Model is also known as geospatial data or geographic data. It is the data or information that identifies the geographic placement of features and boundaries on Earth, such as natural or constructed features, oceans, and more.

A geographical information system (GIS) is a decision support system that uses geographic databases to construct & display maps and other graphical displays that supports decisions affecting the geographic dispersion of people and other resources. Geographic Information Systems (GIS) forced researchers to appear again at the nature and characteristics of spatial information. Conceptual models, allowing digital representation of spatial data emerged and offered an unequaled environment for geographic research. GIS leads to a renewed enthusiasm about space and the use of location in many human, societal and environmental troubles. The fast paced developments also lead to an early understanding of the some major limitations and problems of GIS. There are two types of problems that are of special interest for our purpose: problems related to the representation of spatial data, and problems related to the lack of instruments to pull knowledge from GIS.

## LITERATURE REVIEW

More recently expert systems and GISs have been blended to provide distributed knowledge-based design and analysis instruments for employment in environmental and natural resource planning. Robinson offered a review of expert system applications in GIS and concludes that a lack of tools for building expert systems and formalism in GIS is

substantial obstacles to the growth of large scale integrated expert GIS application.

The major countries of interest in expert GIS reviewed are map design, terrain analysis and geographic database management.

Kofran reviews the literature related to Artificial Intelligence (AI) and GIS, and discovers that there has been very slight usage of AI in GIS applications, merely that many developers are interested in the possibilities of such integrated software systems. Two major roles of AI related to GIS are discussed.

1. AI as an analytical tool integrated into the GIS
2. Knowledge-based GIS where AI plays a predominant role in deriving a decision support system with GIS acting as a spatially oriented database.

Harris and Batty build on the goal-seeking and design strengths of planning to propose the development of planning support systems by integrating GIS technology with locational models while recognizing limitations of underlying economic and behavioral theories. The spatial decision support systems have been extensively and adequately comprehended in the literature (Craig and Moyer, 1991, Densham, 1991, Goodchild and Densham, 1990, Moon, 1992, NCGIA, 1992).

## MOTIVATION

More recently expert systems and GISs have been blended to provide distributed knowledge-based design and analysis instruments for employment in environmental and natural resource planning. Robinson, offered a review of expert system applications in GIS and conclude that a lack of tools for building expert systems and formalism in GIS are substantial obstacles to the growth of large scale integrated expert GIS application.

## Aim Of The Study

AI is playing a predominant part in GIS arena and it is being used as a problem solving proficiency. We use AI to solve tasks with regard to three areas which are relevant in the context of GIS. They are identified below as three aims.

- The first purpose is to design an evidential reasoning methodology for discovering the information content of a target scene.
- The second objective is to evolve a methodology for solving image to map registration problem. The information, content along a map may not be fully true due to changes taking place in environment to various image primitives.
- The final objective is to design an object-oriented gateway to existing GIS which includes an object-oriented front end to existing GIS (as it is a lot better if existing GIS is converted to object-oriented GIS (OOGIS), as developing OOGIS is costly)

## Present Work And Organization

The present work and organization are described as follows:

- Foremost, we start with explaining about the involvement of spatial information finally explaining about the present day tasks which involves bitmap graphs.
- In the following section the characteristics of spatial information are explained in which the importance of spatial data modeling, its concepts are identified, highlighting the deficiencies to represent spatial data in tabular form.

## CONCLUSION AND FUTURE SCOPE

Foremost, we discuss the three computer applications under spatial information section, viz., first generation applications involving numerical computing, second generation applications involving the commercial data processing and third generation dominated by competing with geometric and pictorial objects resulted in the development of various data structures such as arrays, list structures and multi-key access structures. ctures.

A case study, which uses geologist's knowledge, to identify geomorphological features using evidential reasoning in to maps, satellite images is discussed in length. Various geomorphological features to identify are mountains, in selbergs/bornhardts, irregular hills, domal hills, etc. The features into maps such as closely spaced contour lines, widely spaced contour lines etc., along with corresponding hypotheses are drawn. Along similar lines features with corresponding hypotheses of geomorphologic features on satellite images (FCC and Band-4) are explained. The data gathered from experts is structured properly to build gallery or knowledge base.

Object-oriented gateway design aspects viz., analysis, organization design, object design, implementation are explained. The tasks of analysis phase are object-oriented concepts inclusion, establishing GUI, providing communication between GIS and front-end via parser, high level abstraction for an application by providing 'schema building 'facility. Schema building, modifications to schema (add a grade, delete a class, affecting hierarchy changes, add attribute, change name, add/delete method, propagation of changes to class and objects) are explained. System design describes the approach to solve the trouble. The overall construction is drawn. The four subsystems are schema manager, division manager, object manager, and system manager.

The future directions to object-oriented gateway to GIS are incorporating equivalent object concepts, i.e., to keep track of different theatrical performances of same object and building customer-host model. In a customer-server model a single server work as core which is deep in functionality and will be utilized by different clients on client GISs placed wide apart.

**REFERENCES**:

1. A.K. Pradhan, K. Tripathi, A conceptual framework of spatial and non-spatial database development of an efficient GIS, International Journal of Intelligent cooperative information systems.
2. Davis Randall, and Lenat, B.Douglas (1982), Knowledge-based systems in Artificial intelligence, Mcgraw-hill, Newyork.

3. Jonathan F. Rapr, David J. Magnix (1992), Design models and functionality in GIS, Computers and Geosciences, Vol: 18, No: 4,387-394.
4. R. Reiter, and A.K. Mack worth (1990), A logical framework for depiction and image interpretation. Artificial Intelligence, Vol: 41, 125-155.
5. David Rlind (1988), A GIS research agenda. International Journal of GIS, Vol: 2, No: l, 23-28.
6. Stuart A. Roberts, Mark N. Gahegm, An intelligent object-oriented Geographical information system. International Journal of GIS, Vol: 2, No: 2, 101-110.
7. V.D. Robinson, A.V. Franik, and M.A. Blaze (1988), Expert system and CIS: review and prospects, Expert system in engineering, 201-213.
8. Glenn Shafer, and Roger Logan (1989), Implementing Dempster's rule for hierarchical evidence, Artificial Intelligence, Vol: 33,271-298.
9. G. Shafer (1985), Hierarchical evidence, In Proceedings of the Second Conference on Artificial Intelligence Applications, Miami beach, FL, IEEE Computer Society press, 16-25.
10. G. Shafer (1986), the combination of evidence, International Journal of Intelligent systems, Vol: l, 155-179.

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN: 2277-7881; IMPACT FACTOR –4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# SET THEORY-ALGEBRA

**M.D.Zafar Hassan**
Research Scholar
Department of Mathematics
C.M.J. University, Jorabat, Meghalaya

## Abstract

Set theory is a branch of mathematical logic that deals with the study of sets and basically a set is a collection of objects. A set can be a collection of any type of object. We apply descriptive set-theoretic techniques to analyze the complexity of various sets and relations arising in areas of analysis. In particular, we use the theory of Borel reducibility among definable equivalence relations to quantify the difficulty of classifying various mathematical objects up to some notion of equivalence. The researcher considers the isometry of spaces with large isometry groups. We prove several results about the isomorphism relation on various classes of countable structures which are of independent interest, in particular that the classification of countable vertex- transitive graphs up to isomorphism is Borel-complete.

**Key Words:** Set Theory, Borel sets, Isomorphism, Borel automorphisms, Borel bijection, Descriptive Set Theory

## INTRODUCTION

Set Theory is the true study of infinity. This alone assures the subject of a place prominent in human culture. But even more, Set Theory is the milieu in which mathematics takes place today. As such, it is expected to provide a firm foundation for the rest of mathematics. And it does—up to a point; we will prove theorems shedding light on this issue. Set theory is the branch of mathematical logic that studies sets, which are collections of objects. Although any type of object can be collected into a set, set theory is applied most often to objects that are relevant to mathematics. The language of set theory can be used in the definitions of nearly all mathematical objects.

The development of set theory created a new trend in mathematical research. On one hand it produced strong techniques such as transmit recursion to solve long-standing open problems, and on the other hand the new theories enabled us to prove that it is impossible to answer certain questions within the framework of ZFC; that is the usual axioms of set theory. Proving these so called consistent and independent statements are a very active and rapidly growing area of mathematics, specifically of analysis as well. My research presents a collection of my results of this type from the field of real analysis.

Descriptive Set Theory is the branch of set theory concerned with the definability and classification of sets of real numbers and other Polish spaces (separable, completely metrizable spaces). The origins of the field lie at the point-set topology of the early part of the twentieth century. Two themes recur in this area. The first is that of definability. Given a particular set of real, one can ask whether it can be given an explicit definition in a formal language, and how complicated this definition must be. This question is related to describing how the set may be "built from below," starting with some "simple" sets and applying set-theoretic operations to them.

The second theme is that of hierarchies of complexity. This is by no means distinct from the first theme, but manifests itself in a different sort of result. In many situations, one studies a notion of reducibility, in terms of which one object may be deemed to be "simpler" than another.

## RELATED WORKS

The modern study of set theory was initiated by Georg Cantor and Richard Dedekind in the 1870s. After the discovery of paradoxes in naive set theory, numerous axiom systems were proposed in the early twentieth century, of which the Zermelo–Fraenkel axioms, with the axiom of choice, are the best-known.

Set theory is commonly employed as a foundational system for mathematics, particularly in the form of Zermelo–Fraenkel set theory with the axiom of choice. Beyond its foundational role, set theory is a branch of mathematics in its own right, with an active research community. Contemporary research into set theory includes a diverse collection of topics, ranging from the structure of the real number line to the study of the consistency of large cardinals.

In recent years, descriptive set theory has been used to study and classify definable equivalence relations. An equivalence relation is a reflexive, symmetric, and transitive binary relation on some set; as the name suggests, it is used to separate a set of objects into groups, called equivalence classes, which have something in common. A basic example is the relation on the integers of equivalence mod m for some natural number m. Here an equivalence class consists of all integers having the same remainder upon division by m. In the case that an equivalence relation E is defined on the reals or some other Polish space X, we may identify the relation with its graph, $E \subseteq X_2$.

We can then discuss the definability of the relation in this space. For instance, E is said to be a Borel equivalence relation if its graph is a Borel subset of the space $X_2$ (in the product topology). Here we have a natural notion of reducibility. We say that one equivalence relation E on a space X is Borel reduced to a second relation F in a space Y if there is a Borel- measurable function f from X to Y such that for all $x_1$ and $x_2$ in X we have $x_1 E x_2 \Leftrightarrow f(x_1) F f(x_2)$

We write this as $E \leq_B F$. This says that the relation E is essentially no more complicated than F: Given F (together with a reducing function f) we may recover E. Embeddability may also be viewed from the standpoint of quotient spaces. If one considers the two quotient spaces X/E and Y/F, then having a definable reduction f of E to F implies that there is a definable injection f-: X/E '→ Y /F. We can thus say that the "definable cardinality" of the quotient space X/E is less than or equal to that of Y /F.

We say that two relations are Borelbireducible, E ∼B F, if E ≤ B F and F ≤ B E. There are several strengthening of these notions. We say that E is a Borel Embeddable in F, E CBF if there is an injective function, reducing E to F; we write E ≈BF for biembeddability. The strongest notion is that of Borel isomorphism: We say E ≅ BF if there is a Borel bijection of the underlying spaces which is a reduction of E to F (so that its inverse is a reduction of F to E).

Instead of the Borel-measurable maps, we could instead require continuous functions in our reductions. In many cases we can in fact find such reductions, but in general this gives a stronger notion of reducibility. The Borel context turns out to be a more useful notion for most of the situations we will consider, though. It allows us to work around features of an equivalence relation which are really features of the underlying space and not intrinsic to the relation, and allows us to be somewhat more flexible in the way we code various mathematical objects as elements of a Polish space as described below.

The reducibility hierarchy among Borel and other classes of definable equivalence relations has been studied extensively. Although many questions remain open, some of the broader structure has been determined. Several nice classes of equivalence relations have been isolated, and certain “benchmark” equivalence relations have been identified. These concrete examples allow us to test other equivalence relations to determine if they are simpler or more complicated than the known examples, and thus give some measure of where these other relations fall in the reducibility hierarchy. We will discuss several of these relations below.

This program has proved particularly fruitful in determining the complexity of various classification problems in the analysis and other areas of mathematics. Given a collection of objects (such as countable groups) we can ask how difficult it is to classify them up to some notion of equivalence (such as group isomorphism). This is a somewhat vague question, but we can give a formulation which allows us to make this

precise. We first want to represent the objects under consideration as elements of some Polish or standard Borel space. In the case of countable groups, for instance, we can view a group G as having as its underlying set the natural numbers, $\omega$, and code the group as an element x of $2\omega\times\omega\times\omega$ by setting x (I, j, k) = 1 if and only if $g_1 \bullet g_j = g_k$; that is, we code the group multiplication into a subset of $\omega \times \omega \times \omega$. The set of elements which legitimately code groups can then be topologies so as to be a Polish space. We can now define the isomorphism relation on this space by setting two codes equivalent if they code isomorphic groups. This relation turns out to be an analytic equivalence relation on the space of codes.

Having done this, we are free to apply the theory of reducibility of equivalence relations just described. This allows us to give relative comparisons between various isomorphism problems as well as other concrete equivalence relations. We can also view this analysis as giving us a gauge of how complicated a set of invariants must be in order to completely classify the given objects. An invariant for a classification problem is something we assign to each of our objects so that equivalent objects are assigned the same invariant. For instance, dimension is an invariant for linear isometry of Banach spaces, and entropy is an invariant for isomorphism of measure-preserving transformations (although neither of these is a complete invariant). To be useful, invariants should be able to be calculated in some fairly explicit fashion; it thus makes sense to require a Borel-measurable function sending an object to its invariants (or some more broadly definable function). These invariants should also be as concrete as possible if they are to be useful. For instance, one could always take the equivalence class of a given object as a complete invariant, but this tells us nothing new about the structure of the classification problem.

Most of the studies meted out to this point on the refrigeration systems shows that analyses the performance of refrigeration systems were investigated supported the 1st law of physical science. However, this approach is of restricted use in sight of the very fact that the actual

energy losses are troublesome to form out as a result of the primary law deals with the quantity of energy and not the standard of energy. So as to calculate the particular losses due to changelessness within the method, exergy analysis supported the second law of thermodynamics is that the correct tool. Exergy analysis utilizes exegetic potency criterion taking under consideration all the losses showing in an exceedingly system, for mensuration the particular performance.

The simplest sort of invariant one can imagine is a real number (or perhaps an integer, but we will almost always be interested in situations with uncountably many isomorphism types). If we can assign a real number to each object (in a Borel manner) in such a way that two objects are equivalent if and only if they are assigned the same reality, we say that the equivalence relation (and the associated classification problem) are concretely classifiable or smooth. This is equivalent to saying that the relation is Borel reducible to the identity relation on the reals. This is perhaps the best sort of classification we could hope for; see [16] or [32] for some considerations of what a concrete set of invariants should be.

There are many non-smooth equivalence relations. A canonical, such relation is the equivalence relation $E_0$. This is defined on the space $2\omega$ by setting $xE_0y$ if and only if x and y differ on only finitely many coordinates. Each equivalence class is then a countable set. In the realm of Borel equivalence relations, $E_0$ is aa minimum non-smooth equivalence relation: A theorem of Harrington, Kechris, and Louveau says that a Borel equivalence relation is non-smooth if and only if $E_0$ continuously embeds in it (see [14]). For non-Borel equivalence relations, the situation is slightly more complicated, but $E_0$ is still a good test relation.

## Preliminaries

We assume some familiarity with descriptive set theory. Our basic references are [26] and [21], and any undefined notation may be found in these. The following remarks are meant to be only the briefest

explanation of terms common to much of this dissertation, and we will set out additional terminology as it is needed.

We shall denote the set of natural numbers, {0, 1, 2. . .}, buy ω. A fundamental notion will be that of a Polish space, i.e. a separable, completely metrizable space. When we are interested primarily in the Borel structure of a space and not the topology, we will sometimes consider standard Borel spaces. A standard Borel space is a set equipped with an σ-algebra which is the algebra of Borel sets for some Polish topology on the space. In addition to the real numbers, R, we will often work on the spaces 2ωω (Cantor space) and ω (Baire space). These spaces are topologized using the product topology, where 2 (resp. ω) is given the discrete topology. They can be given the following metric: d(x, y) =1, where n(x, y) is the least n such that x (n) j= y(n). We also use the space [ω] ω of infinite sequences from ω; this is a Gδ subspace of ωω and hence Polish in the relative topology. We shall generally refer to elements of all three of these spaces as "reals" (the Baire space is in fact homeomorphic to the set of irrational reals in the subspace topology, and elements of the Cantor space are associated to elements of the unit interval by viewing a sequence as a binary fractional expansion.

Polish spaces are Borel isomorphic, that is, there is a Borel-measurable bijection between any two of them. Hence, in terms of Borel structure, they are all the same, although the actual topologies may differ. Thus, when we deal with Borel reducibility, the actual Polish space we are working on will be inessential.

A Polish group is a topological group whose topology is Polish. Given a continuous (or Borel-measurable) action of a Polish group G on a Polish space X we define the orbit equivalence relation $E_X$ by setting $x\ E_X\ y \Leftrightarrow (\exists g \in G)[g \bullet x = y]$

In the case that the action is continuous, we call this a Polish G-space.

A tree on a set X (typically 2, $\omega$, or some product of these) is a subset of $X<\omega$ (the set of finite sequences of elements of X) closed under initial segments. A branch through a tree T on X is an element of $X\omega$ all of whose initial segments are in T. The set of branches through a tree T is denoted by [T]. Closed subsets of $2\omega$ and $\omega\omega$ may be represented as the set of branches of a tree on 2 or $\omega$, respectively.

A set is analytic (or $\Sigma 1$) if it is the continuous image of a Polish space; this is equivalent to being the continuous image of a Borel set. On the Baire space $\omega\omega$, a set is analytic precisely when it is the projection (onto, say, the first coordinate) of a closed subset of $(\omega\omega)2$. This is equivalent to being the projection of a tree on $\omega \times \omega$, where the projection of a tree T is denoted by p [T] and we have

$\alpha \in p[T] \Leftrightarrow (\exists\beta)(\forall n)[(\alpha \mid n, \beta \mid n) \in T]$

I.e.: p [T] is the projection onto the first coordinate of the set of branches through T.

A set is co-analytic (or $\Pi 1$) if its complement is analytic. There is a well-developed structure theory for such sets; we refer the reader to the above references, particularly for the notions of $\Pi 1$-norms and boundedness. Further levels of the projective hierarchy are formed similarly: A set is $\Sigma 1$ if it is the continuous image of a $\Pi 1$ set; a set is $\Pi 1$ if it is the complement of a $\Sigma 1$ set, and so forth.

A point class is a collection of subsets of a space. Usually we shall want the class to have certain closure properties, for instance being closed under countable unions or under continuous pre images. Given a point class $\Gamma$ (such as $\Pi 1$), we say that a set A is $\Gamma$-hard if, for every set B in $\Gamma$, we have that B is the continuous pre image of A. We say that A is $\Gamma$-complete if A is in $\Gamma$ and is $\Gamma$-hard. We say that a set is true $\Gamma$ if it is in $\Gamma$ but is not in any simpler point class; more precisely, this will generally mean the set is in $\Gamma$ but its complement is not. In ZFC, being true $\Gamma$ is generally weaker than being $\Gamma$-complete, although for reasonable point classes under some determinacy assumptions the notions coincide.

## The Axioms of ZFC

Zermelo-Frankel (with Choice) Set Theory, abbreviated to ZFC, is constituted by the following axioms.

1. Axiom of Equality

$\forall x\ \forall y\ [x = y \rightarrow \forall z\ (x \in z \leftrightarrow y \in z)]$

2. Axiom of Extensionality

$\forall x\ \forall y\ [x = y \leftrightarrow \forall u\ (u \in x \leftrightarrow u \in y)]$

3. Axiom of Existence

$\exists z\ z = \emptyset$

4. Axiom of Pairing

$\forall x\ \forall y\ \exists z\ z = \{x, y\}$

5. Union Axiom

$\forall x\ [x \neq \emptyset \rightarrow \exists z\ z = \{w : (\exists y \in x)(w \in y)]$

6. Intersection Axiom

$\forall x\ [x \neq \emptyset \rightarrow \exists z\ z = \{w : (\forall y \in x)(w \in y)]$

7. Axiom of Foundation

$\forall x\ [x \neq \emptyset \rightarrow (\exists y \in x)(x \cap y = \emptyset)]$

8. Axiom of Choice

$\forall X\ [(\forall x \in X\ \forall y \in X\ (x = y \leftrightarrow x \cap y \neq \emptyset)) \rightarrow \exists z\ (\forall x \in X\ \exists! y\ y \in x \cap z)]$

9. Power Set Axiom

$\forall x\ \exists z\ z = \{y : y \subseteq x\}$

10. Axiom of Infinity

$N \neq ON$

Here is a summary of potential axioms which we have discussed but which lie outside of ZFC.

1. Axiom of Inaccessible

$\exists\kappa\ \kappa > \omega$ and $\kappa$ is an inaccessible cardinal

2. Continuum Hypothesis

$|P(\omega)| = \omega 1$

3. Generalized Continuum Hypothesis

$\forall\kappa\ [\kappa$ is a cardinal $\rightarrow |P(\kappa)| = \kappa+$

4. Suslin Hypothesis

Suppose that R is a complete dense linear order without endpoints in which every collection of disjoint intervals is countable.
Then R = ~R.

5. Axiom of Constructibility

V = L

I. PROPOSED APPROACH

We consider the relation of isomorphism of Borel automorphisms of a Polish space. We say that two automorphisms are isomorphic if they are conjugate via some Borel bijection of their underlying spaces. We show that this relation is quite complicated in two senses. First, the relation is complicated in a descriptive set-theoretic sense (when coded appropriately):

**Theorem 0.1:** The relation of isomorphism of Borel automorphisms is $\Sigma 1$-complete.

Second, it is quite high in the Borel reducibility hierarchy of equivalence relations. It reduces the relation of equality of Borel sets, so in particular it reduces any Borel equivalence relation. We in fact prove a somewhat stronger statement. We say that one automorphism f embeds in a second one g if there is a Borel injection $\phi$ such that $\phi \circ f = g \circ \phi$; this is equivalent to saying that f is isomorphic to the restriction of g to some invariant Borel set. We then have:

**Theorem 0.2:** There is a Borel map $\psi$ from Borel subsets of the Baire space to Borel automorphisms of the Cantor space such that $A \subseteq B$ if and only if $\psi(A)$ embeds in $\psi(B)$.

Since two automorphism will be isomorphic precisely when they embed in each other, this gives the reduction of equality of Borel sets to isomorphism of Borel automorphisms. In par- ticular, this shows that isomorphism of Borel automorphisms in not concretely classifiable, answering a question of [5].

We consider the notion of a weakly wandering sequence for a trans- formation T on a space X. A sequence $\Omega$ of integers is called weakly wandering for T if there is a (non-trivial) set $A \subseteq X$ such that we have T n [A] $\cap$ T m [A] = $\emptyset$ for all n j= me in $\Omega$. We define the following four sets:

WW = {$\Omega$: $\Omega$ is weakly wandering for some T}

WW0 = {$\Omega$: $\Omega$ is weak wandering for some ergodic T}

E WW = {$\Omega$: $\Omega$ is exhaustive weak wandering for some T}

E WW0 = {$\Omega$: $\Omega$ is exhaustive weak wandering for some ergodic T}

Using characterizations of these sets due to Kamae, Eigen and Hajian, these sets are all easily seen to be $\Sigma 1$. We show that they are also all $\Sigma 1$-complete. In fact:

**Theorem 0.3:** If X is any set with E WW0 $\subseteq X \subseteq$ WW, then X is $\Sigma 1$-hard.

As a corollary of the proof, we derive the following theorem of Mansfield. Recall that a set of natural numbers A is said to be a difference set, if there is a second set B such that $A = \{m - n: m, n \in B, me \geq n\}$.

**Theorem 0.4:** (Mannsfield) The set {A: A contains an infinite difference set} is $\Sigma 1$- complete.

Using the techniques we develop, we are also able to construct particular sequences of interest, such as a sequence which is exhaustive weak wandering for some transformation, but which is not weakly wandering for any ergodic transformation (thus answering a question of [6]). We prove:

**Theorem 0.5:** The four sets: WW \ (WW0 ∪ E WW), E WW \ WW0, WW0 \ E WW, and (WW0 ∩ E WW) \ E WW0 are all non-empty. In fact, they are all $\Sigma 1$-hard.

We used the relation of equality of Borel sets in order to show that isomorphism of Borel automorphisms is a complicated equivalence relation. This equality relation is an example of an equivalence relation which reduces all Borel equivalence relations. Such a relation must necessarily be non-Borel. After that we consider such relations and raise the question of whether there can be any minimal or minimum such relations. We start by considering the relation of equality of Borel sets. This is a $\Pi 1$ relation who reduces all Borel equivalence relations; however, it is neither minimal nor universal among such:

**Theorem 0.6:** The relation of equality of Borel sets is not a universal $\Pi 1$ equivalence relation, nor is it minimal among those relations which reduce every Borel equivalence relations

It remains open whether there can be such a minimal relation, or even a minimum such. In the case of $\Sigma 1$ relations, we show that there is no minimum by producing a "minimal pair":

**Theorem 0.7:** There are two $\Sigma 1$ equivalence relations, E1 and E2, such that for any equivalence relation E we have that E is Borel if and only if E is Borel reducible to both E1 and E2.

In particular, E1 and E2 are incomparable and above all Borel equivalence relations; any minimum relation would have to be below both of them and hence Borel.

We next consider several aspects of Polish metric spaces. By a Polish metric space we mean a Polish space equipped with a complete, compatible metric. In Chapter 4 we determine what the set of distances of such a space may be. The distance set of a metric space (X, d) is defined to be {d (x, y): x, y ∈X}. We prove the following characterization:

**Theorem 0.8:** A set of non-negative real numbers containing 0 is the distance set of some Polish metric space if and only if either it is countable or it is analytic and has 0 as a limit point.

We also give characterizations of the possible distance sets of certain types of Polish metric spaces, such as zero-dimensional, locally compact, etc.

Next we analyze the equivalence relation of isometry of Polish metric spaces. In the case of compact metric spaces, this relation is concretely classifiable by a result of Gromov (see [12]). In the case of arbitrary Polish metric spaces, though, this relation turns out to be very complicated. Gao and Kechris in [11] have shown that this relation is bireducible with the universal Borel action of a Polish group on a Polish space. We give an independent proof of one direction of this:

**Theorem 0.9:** Let Ex be the orbit equivalence relation induced by a Borel action of a Polish group G on a Polish Space X. Then the relation Ex is Borel reducible to the isometry relation on polish metric spaces. Our technique is "local" in the sense that the spaces we build share many properties with the Polish groups in question. This allows us to calculate lower bounds on the complexity of the isometry relation restricted to particular classes of metric spaces. For example: We use Hjorth's theory of turbulence (see [16]) to conclude that the isometry

problem for several classes of spaces is not classifiable by countable structures. We also show that several

classes are not concretely classifiable by reducing the equivalence relation $E_0$ to the corresponding isometry relation.

We construct a language suitable for describing sets.
The symbols:

| | |
|---|---|
| variables | $v_0, v_1, v_2, \ldots$ |
| equality symbol | $=$ |
| Membership symbol | $\in$ |
| Logical connectives | $\wedge, \vee, \neg, \rightarrow, \leftrightarrow$ |
| quantifiers | $\forall, \exists$ |
| Parentheses (,) | |

The atomic formulas are strings of symbols of the form:
$(v_i \in v_j)$ or $(VI = VJ)$

The collection of formulas of set theory is defined as follows:

1. An atomic formula is a formula.
2. If $\Phi$ is any formula, then $(\neg\Phi)$ is also a formula.
3. If $\Phi$ and $\Psi$ are formulas, then $(\Phi \wedge \Psi)$ is also a formula. If $\Phi$ and $\Psi$ are formulas, then $(\Phi \vee \Psi)$ is also a formula.
4. If $\Phi$ and $\Psi$ are formulas, then $(\Phi \rightarrow \Psi)$ is also a formula.
5. If $\Phi$ and $\Psi$ are formulas, then $(\Phi \leftrightarrow \Psi)$ is also a formula.
6. If $\Phi$ is a formula and $v_i$ is a variable, then $(\forall v_i)\ \Phi$ is also a formula.
7. If $\Phi$ is a formula and $v_i$ is a variable, then $(\exists v_i)\ \Phi$ is also a formula.

The language of set theory is very precise, but it is extremely difficult for us to read mathematical formulas in that language. We need to discover a means to get to these formulas more intelligible.

In order to avoid the inconsistencies associated with Richard's paradox, we must ensure that the formula $\Phi$ in the class $\{VJ: \Phi\}$ is indeed a proper formula of the language of set theory—or, at least, can be converted to a proper formula once the abbreviations are eliminated. It is not so important that we actually write classes using proper

formulas, but what is important is that whatever formula we write down can be converted into a proper formula by eliminating abbreviations and slang.

We can now relax our formalism if we keep the previous paragraph in mind. Let's adopt these conventions.

1. We can use any letters that we like for variables, not just $v_0$, $v_1$, $v_2$ . . .
2. We can freely omit parentheses and sometimes use brackets] and [instead.
3. We can write out "and" for "∧", "or" for "∨", "implies" for "→" and use the "if...then..." format as well as other common English expressions for the logical connectives and quantifiers.
4. We will use the notation $\Phi$ (x, y, $w_1$. . . $w_k$) to indicate that all free variables of $\Phi$ lie among x, y, $w_1$, . . . , $w_k$. When the context is clear we use the notation $\Phi$(x, t, $w_1$. . . $w_k$) for the result of substituting the term t for each free occurrence of the variable y in $\Phi$, i.e., $\Phi(y|t)$.
5. We can write out formulas, including statements of theorems, in any way easily seen to be converted to a proper formula in the language of set theory.

## II. EVALUATION

### a. The axioms of set theory

We will explore the ZFC Axiom System. Each axiom should be "obviously true" in the context of those things that we desire to call sets. Because we cannot give a mathematical proof of a basic assumption, we must rely on intuition to determine truth, even if this feels uncomfortable. Beyond the issue of truth is the question of consistency. Since we are unable to prove that our assumptions are

true, can we at least show that together they will not lead to a contradiction? Unfortunately, we cannot even do this—it is ruled out by the famous incompleteness theorems of K. Godel. Intuition is our only guide.

Different authors give slightly different formulations of the ZFC axioms. All formulations are equivalent. Some authors omit the Axiom of Equality and Axiom of Existence because they are the consequences of the usual logical background to all mathematics. We include them for emphasis. Redundancy is not a bad thing and there is considerable redundancy in this system.

### b. The natural numbers

We now construct the natural numbers. That is, we will represent the natural numbers in our universe of set theory. We will construct a number system which behaves mathematically exactly like the natural numbers, with exactly the same arithmetic and order properties. We will not claim that what we construct are the actual natural numbers—whatever they are made of. But we will take the liberty of calling our constructs "the natural numbers".

### c. The ordinal numbers

The natural number system can be extended to the system of ordinal numbers. An ordinal is a transitive set of transitive sets. More formally: for any term t, "t is an ordinal" is an abbreviation for (t is transitive) $\wedge$ ($\forall x \in t$) (x is transitive). We often use lower case Greek letters to denote ordinals. We denote $\{\alpha: \alpha$ is an ordinal$\}$ by ON.

### d. Relations and orderings

In the following definitions, R and C are terms.

We say R is a relation on C whenever $R \subseteq C \times C$. We say a relation R is irreflexive on C whenever $\forall x \in C$ hx, xi $\in$/ R. We say a relation R is transitive on C whenever

$\forall x\ \forall y\ \forall z\ [(hx, yi \in R \wedge hy, zi \in R) \rightarrow hx, zi \in R.]$

We say a relation R is well founded on C whenever

$\forall X\ [(X \subseteq C \wedge X\ 6= \emptyset) \rightarrow (\exists x \in X\ \forall y \in X\ hy, xi \notin R)]$.

Such an x is called minimal for X.

We say a relation R is total on C whenever

$\forall x \in C\ \forall y \in C\ [hx, yi \in R \vee hy, xi \in R \vee x = y]$.

We say R is extensional on C whenever

$\forall x \in C\ \forall y \in C\ [x = y \leftrightarrow \forall z \in C\ (hz, xi \in R \leftrightarrow hz, yi \in R)]$.

### e. Cardinality

We investigate a concept which aims to translate our intuitive notion of size into formal language. By Zermelo's Well Ordering Principle (Theorem 22) every set can be well ordered. By Theorem 21, every well ordered set is isomorphic to an ordinal. Therefore, for any set x there is some ordinal $\kappa \in ON$ and a bijection $f: x \rightarrow \kappa$.

We define the cardinality of x, $|x|$, to be the least $\kappa \in ON$ such that there is some bijection $f: x \rightarrow \kappa$. Every set has cardinality.

### f. Reflection

There is a generalization of the Equality Axiom, called the Equality Principle, which states that for any formula $\Phi$ we have $x = y$ implying that $\Phi$ holds at x iff $\Phi$ holds at y. The proof requires a new technique, called induction on the complexity of the formula.

We make this precise. For each formula $\Phi$ of set theory all of whose free variables lie among $v_0, \ldots, v_n$ we write $\Phi(v_0, \ldots, v_n)$ and for each i and j with $0 \leq i \leq n$, we denote by $\Phi(v_0, \ldots, v_i/v_j, \ldots, v_n)$ the result of substituting vj for each free occurrence of vi.

For each formula $\Phi$ ($v_0 \ldots v_n$) and each i and j with $0 \leq i \leq n$ we have:
Theorem 39. $\Phi$, I, j

$\forall v0 \ldots \forall vi \ldots \forall vn \forall vj\ [vi = vj \rightarrow (\Phi(v0, \ldots, vn) \leftrightarrow (\Phi(v0, \ldots, vi/vj, \ldots, vn))]$

This is a scheme of theorems, one for each appropriate $\Phi$, i, j.

## g. Elementary sub models

We shall first introduce a collection of set operations proposed by Kurt Godel which are used to build sets. We shall then discuss the new concept of elementary sub model.

We now define the ordered n−tuple with the following infinitely many formulas, thereby extending the notion of ordered pair.

hxi = x

hx, yi = {{x}, {x, y}}

hx, y, zi = hhx, yi, zi

hx1, . . . ,xni = hhx1, . . . , xn−1i, xni

## h. Constructibility

The G Model closure of a set X is denoted by

$cl(X) = \{X \cap G(n, \sim y) : n \in \omega \text{ and } \exists k \in \omega\ \sim y \in k(X)\}$.

The constructible sets are obtained by first defining a function

L: ON → V by recursion as follows:

$L(0) = \emptyset$

$L(\alpha + 1) = cl(L(\alpha) \cup \{L(\alpha)\})$

$L(\delta) = \{L(\alpha): \alpha < \delta\}$ for a limit ordinal $\delta$

## IV. CONCLUSION

In this paper our main goal is to elaborate on some ideas from a talk which I gave at the workshop on Set Theory and the Philosophy of Mathematics" held at the University of Pennsylvania in October 2010. I will state and give supporting evidence for several theses about the philosophy of set theory and the Continuum Hypothesis (CH).

In my title I promised some challenges (though maybe warnings" would have been a better word) for the philosophy of set theory. To summarize the argument of this paper, my challenges are:

Be faithful to set-theoretic practice.

## *REFERENCES*

[1] *S. Adams and A.S. Kechris, Linear algebraic groups and countable Borel equivalence relations, Journal of the American Mathematical Society, vol. 13, no. 4, pp. 909-943.*

*[2] H. Becker and A.S. Kechris, The descriptive set theory of Polish group actions, London Mathematical Society Lecture Notes Series, Cambridge.*

*[3] J.D. Clemens, S. Gao, and A.S. Kechris, Polish metric spaces: Their classification and isometry groups, to appear in Bulletin of Symbolic Logic.*

*[4] N.G. De Bruijn, On bases for the set of integers, Publicationes Mathematicae Debrecen , vol. 1, pp. 232-242.*

*[5] R. Dougherty, S. Jackson, and A.S. Kechris, The structure of hyperfinite Borel equiv- alence relations, Transactions of the American Mathematical Society, vol. 341, no. 1, pp. 193-225.*

*[6] S. Eigen and A. Hajian, A characterization of exhaustive weakly wandering sequences for nonsingular transformations, Commentarii Mathematicial Universitatis Sancti Pauli, vol. 36, no. 2, pp. 227-233.*

*[7] S. Eigen, A. Hajian, and S. Kakutani, Complementing sets of integers – a result of ergodic theory, Japanese Journal of Mathematics, vol. 18, no. 1, pp. 205-211.*

*[8] S. Eigen, A. Hajian, and B. Weiss, Borel automorphisms with no finite invariant mea- sure, Proceedings of the American Mathematical Society, vol. 126, no. 12, pp. 3619-3623.*

*[9] H. Friedman and L. Stanley, A Borel reducibility theory for classes of countable struc- tures, Journal of Symbolic Logic, vol. 54, pp. 894-914.*

*[10] S. Gao, Some applications of the Adams-Kechris technique, to appear in Proceedings of the American Mathematical Society.*

*[11] S. Gao and A.S. Kechris, On the classification of Polish metric spaces up to isometry, preprint.*

*[12] M. Gromov, Metric structures for Riemannian and non-Riemannian spaces, Progress in Mathematics, vol. 152, Birkh¨auser.*

*[13] A. Hajian and S. Kakutani, Weakly wandering sets and invariant measures, Transac- tions of the American Mathematical Society, vol. 110, pp. 136-151.*

*[14] L.A. Harrington, A.S. Kechris, and A. Louveau, A Glimm-Effros dichotomy for Borel equivalence relations, Journal of the American Mathematical Society, vol. 4, pp. 903-927.*

*[15] G. Hjorth, An absoluteness principle for Borel sets, Journal of Symbolic Logic, vol. 63, no. 2, pp. 663-693.*

*[16] G. Hjorth, Classification and orbit equivalence relations, Mathematical Surveys and Monographs, vol. 75, American Mathematical Society.*

*[17] G. Hjorth, On invariants for measure preserving transformations, preprint.*

*[18] G. Hjorth, Universal co-analytic sets, Proceedings of the American Mathemati- cal Society, vol. 124, no. 12, pp. 3867-3873.*

*[19] T. Kamae, A characterization of weakly wandering sequences for non-singular transfor- mations, Commentarii Mathematici Universitatis Sancti Pauli, vol. 32, pp. 55-59.*

*[20] M. Katetov, On universal metric spaces, General topology and its relations to modern analysis and algebra, VI (Prague), Research and Exposition in Mathematics, vol. 16, Heldermann, Berlin, pp. 323-330.*

*[21] A.S. Kechris, Classical descriptive set theory, Springer-Verlag Graduate Texts in Mathematics, Berlin.*

*[22] A.S. Kechris and A. Louveau, The classification of hypersmooth Borel equivalence rela- tions, Journal of the American Mathematical Society, vol. 10, no.1, pp. 215-242.*

*[23] L.M. Kelley, Distance sets, Canadian Journal of Mathematics, vol. 3, pp. 187-194.*

*[24] L.M. Kelly and E.A. Nordhaus, Distance sets in metric spaces, Transactions of the American Mathematical Society, vol.71, pp. 440-456.*

*[25] A. Mekler, Stability of nilpotent groups of class 2 and prime exponent, Journal of Symbolic Logic, vol. 46, pp. 781-788.*

*[26] Y.N. Moschovakis, Descriptive set theory, North-Holland Press, Amsterdam.*

*[27] J. Schmerl, What's the difference?, Annals of Pure and Applied Logic, vol. 93, pp. 255-261.*

*[28] J. Schmerl, personal communication.*

*[29] W. Sierpin´ski, Sur l'ensemble de distances entre les points d'un ensemble, Funda- menta Mathematicae, vol. 7, pp. 144-148.*

*[30] S. Solecki, Analytic ideals, Bulletin of Symbolic Logic, vol. 2, no. 3, pp. 339-348.*

*[31] H. Steinhaus, Sur les distances des points des ensembles de mesure positive, Funda- menta Mathematicae, vol. 1, pp. 93-104.*

*[32] B. Weiss, The isomorphism problem in ergodic theory, Bulletin of the American Mathematical Society, vol. 78, pp. 668-84.*

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN: 2277-7881; IMPACT FACTOR –4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# DR.B.R.AMBEDKAR'S PERSPECTIVES ON WOMEN EMPOWERMENT

**Prof.E.Sudha Rani**
Department of History
Dr.B.R.Ambedkar Open University
Hyderabad

## Abstract

Dr.B.R.Ambedkar the architect of modern India addressed the women's issue in general. In the writings of Dr. Ambedkar one can trace the theme of a non- brahmanical perspective on women's liberation. This perspective aims at improvement in economic status through annihilation of caste which is the root of women's subordination and finally the empowerment of women. The central focus of social reform movement of 19th and 20th century is women in general. Dalit women issues failed to attract the attention of the reformers. Very few problems of dominant castes women were addressed by the reformers. The reason behind this is the reforms were largely drawn from the dominant caste strata of the society. It is only the non-brahmanical reformers who took up the issues of Dalits and Sudra women. Jyoti Rao Phule and Savitri bai Phule are the pioneers of women emancipation in India. The present paper intends to examine Ambedkar's thoughts and perspectives on Indian women general and Dalit women in particular through his comprehensive understanding of status of women and pragmatic approach to restructure and reform the Indian society. It aims to study at length Dr.Ambedkar's thoughts and actions that made important differences in the lives of Indian women especially the Dalit women to become educated and active in public life and in the political organizations.

## Introduction

Ambedkar was a champion of women`s rights. Ambedkar's writings and his speeches and addresses to the women`s conferences on several occasions have given powerful propositions for rectifying the wrongs against women as a whole. Ambedkar's understanding of graded/brahmanical patriarchy was clearly depicted in his 'Castes in India: Their Mechanism, Genesis and Development'[i] and 'The rise and fall of the Hindu Women'.[ii] The former explores Ambedkar's articulation of caste as endogamy and the connection between caste and the subordination of women. The latter essay contains an examination of the colonialist and nationalist divisions of Indian History, and a rejection of the dominant view on the Vedic period as a golden age for women. Other works are

"Riddle No. 18: Manu's Madness or Brahmin explanation of the origin of the Mixed castes"[iii] Riddle No 19: The change from paternity to Maternity: What did the Brahmans wish to gain by it? [iv] And excerpts from the controversial article 'The women and the Counter-Revolution[v] also published as the last section of the essay "The Rise and Fall of the Hindu Women". This section summarizes Ambedkar's investigation of the madness of Manu 'the Brahmin law-givers' anxieties over 'violation of endogamy' and 'unregulated womanhood'. 'The unwept and unsung death of the Hindu code Bill' turns to selections from the debate on Hindu Code Bill in Parliament and Ambedkar's resignation as Law Minister on witnessing the 'death of the bill'. It brings together discussion on the 'Hindu code bill' [vi] and excerpts from 'Statement by Dr.B.R.Ambedkar in Parliament in explanation of His resignation from the cabinet.[vii]

**Philosophical basis:**

In order to understand Dr.B.R.Ambedkar's ideas regarding the position of women in the Indian Society, it is essential to understand the philosophical basis of his ideas in general and his perspective on the social problems in particular. On 20th October 1954 in a public meeting at Bombay stated that his life had been influenced by three gurus, Buddha, Kabir and Phule,[viii] who are the profounder of social justice and equality. Ambedkar was schooled in the liberal political tradition which he imbibed through his interaction with the western culture as a result of his British- moulded higher education in India and his training in Columbia University and London School of Economic and Political Science. But in glaring contrast to the intellectual tradition of liberalism he was brought upon, he was condemned to live and suffer in an anti-liberal Indian social cosmos. The root of his analysis laid the problem of individual – the rights of individual and the dignity of individual. Ambedkar believed in the totality of social order. Hence he maintained that no social question could be raised in isolation and that it was not possible to resolve any social problem by delinking it from the totality of the social order similarly he viewed the women's question in the caste perspective.

**Perspective on women's status:**

Women's question for Ambedkar was related to the system of organized exploitation inherent in the Hindu social order. This social order aimed at establishing the dominance of the Brahmanical class through a complex mechanisms represented by the institution of caste. Women along with *Sudras* became victims of such an order which firstly, placed Brahmanical class at a position of dominance; secondly developed an in-built mechanism of its

maintenance, justification and reproduction and thirdly, placed women and *Sudras* at a sub-human level.

Logically, thus, the suffering of *Sudras* and women is related to their being part of their caste and sex, respectively. The exploitation of women and injustice meted out to them is the result of their social grouping. The inferior position granted to women and the sub-human treatment given to them can be explained according to Ambedkar; in terms of the very nature of the social order which does not respect the value of equality among individuals and which does not recognize the worth of the human dignity.

Ambedkar makes a detailed analysis of Indian society therefore, to prove as to how these customs relating to women were mainly linked with the caste and its maintenance. In his analysis, argues that the inhuman treatment given to women in Hindu society is related to the caste as an institution. Therefore, the question of women cannot be isolated from the question of caste. Thus instead of treating women's issue in isolation he attacked the institution of caste which he felt contradicted the basic human values. "The absence of intermarriage or endogamy is the one characteristic that can be called the essence of castes".[ix] Further Dr.Ambedkar argues that a surplus man is not burnt in society by the sole virtue of his being a man. If the surplus man is thought to be a danger to the maintenance of the caste group, he is not burnt as the women. He opined that "From time immemorial man as compared with women has had the upper hand".[x]

Dr.Ambedkar underlines the fact that castes are maintained through the sexual exploitation of women. It is only through the regulation and control on women's sexuality that the closed character of the castes can be maintained and in this sense Dr. Ambedkar argues that women are the gateways of the caste system. It is this that leads Dr.Ambedkar to conclude that women are the gateways to the caste system. This theme appears not only in his writings on the origins of the caste system but also in his speech at the Mahad Satyagraha Parishad.

Thus his views on the liberation of women in India may be summarized as

a. Caste is the root cause of women exploitation
b. Caste is the root of patriarchy

While analyzing the position of women in Indian society, Ambedkar pays special attention to the religious code which, in his opinion, has been mainly responsible for not only degrading their position but also for creating a social acceptability for such degradation.

Ambedkar expresses his astonishment at the way women are disgraced by the law of Manu, whom he considers an audacious person.[xi] In order to express his

resentment against such a code and with a view to project the limit of irrationally and bias against women, Ambedkar quotes Manu wherein he turns women merely into sex-objects at best to be treated with contempt and at worst to be feared as source of moral corruption. Ambedkar finds women of the days before the Manu's code leading a more honorable life. Thus, he finds that in the days of Kautilya, the marriages were post-puberty. During Kautilya's time women could claim divorce on the ground of mutual enmity and hatred. In the days of Kautilya there was no ban on a women or a widow remarrying and every precaution was undertaken to guarantee economic independence to married women.

By challenging the divinity of Manu Samriti, Ambedkar wants the social analysts, social reformers and the common masses to change their orientation from religion to rationality so that they can understand social problems in an objective manner and re-orient social relations on the basis of fair and rational human values.

It was his search for an ideal social order which would be based upon the values of equality and individual dignity that led Ambedkar to appreciate Buddhism. In comparison to the Hindu social order, he found the Buddhist order more liberal, especially in relation to the *Sudras* and women. To him, Manu Samriti was a mew code of law promulgated for the first time during the reign of Pushyamitra. This code of law, he believes was mainly anti-Buddhist and the major purpose of its promulgation was to annihilate Buddhism.

According to Ambedkar, the rising tide of Buddhism brought about a great change in the status of women and *Sudras*. It also provided an avenue for the equality and freedom for woman. Thus, according to Ambedkar, "under the Buddhist Regime she could acquire property; she could become a member of the Buddhist order of Nuns and reach the same status and dignity as a Brahmin".

By admitting women to the life of Parivrajaka, the Buddha by one stroke removed both these wrongs. He gave them the right to knowledge and the right to realize their spiritual potentialities along with men. It was both a revolution and liberation of women in India which allowed them liberty and dignity. Women like Mahaprajapati, Ambapali, Vishakha, Suppiya, Kisa, Goutamai, Yashodhara and many others had become nuns and some of them achieved *arhat*stage in Buddhist order.

On 25th December 1927, Dr.Ambedkar publicly set Manusmriti on fire at Mahad in the presence of men and women who were present in thousands and through this act he challenged the brahmanical hegemony. Dr.Ambedkar in an interview with T.V. Parvate in 1938 said " The bonfire of Manusmruti was quite intentional. We made a bonfire of it, because we view it as a symbol of injustice.[xii] This act of publicly burning the Manusmriti was symbolic. Ambedkar was nowhere under any impression, that mere burning of the text would uproot

the domination which is an integral part of the society. But it was an essential step in the process of giving a fatal blow to the brahmanical hegemony. An ideological attack on Manusmriti was essential to give a self realization to women and Sudras and to awaken them and organize them. Therefore, Manusmriti Dahan is the historical beginning of the liberation of Indian women and Sudras. Hence 25th December, is being celebrated as Indian Women's Liberation day by Bharatiya Stree Mukti Parishad. Till now Bharatiya Stree Mukti Parishads have been held at Nagpur (1997), Pune (1998), Aurangabad (1999), Ahmadnagar (2000), Thane (2001), Akola (2002), and Gondia (2003). Mahatma Phule had made an appeal to burn Manusmriti and Dr.Babasaheb Ambedkar brought this to reality. This religious doctrine played a significant role in strengthening the psychological slavery of Indian women who accepted it as their duty.

**Empowerment of Dalit Women –Ambedkar's Vision**

Ambedkar and Dalit women were involved in a critical refashioning of Dalit women's emotional and corporeal selves. Ambedkar argued with Dalit women that 'you gave birth to us [men] and we are treated worse than animals' (*Bahishkrut Bharat, 3 February 1928).* He therefore challenged Dalit women to either stop producing children or fight the blot of untouchability borne of them. He continues, Similar to Phule; Ambedkar brought out the contradiction between the status of women belonging to different castes, but unlike him he also commented on the children they bore. He provoked Dalit women to question upper-caste women's privilege and claims to purity, in contrast to their curse of impurity.

Ambedkar thus made gender a 'generative' process to enable women to enjoy their human rights. He forcefully advised women to exercise their choice in both the domestic and public political domains. He guided women's attention to the specifics of their oppression by caste and underscored their subordination by the caste-gender compound their simultaneous oppression as Dalits and as women. Hence, he emphasized that *the problem of untouchability eradication was every Dalit woman's responsibility.*

A Dalit woman is the most oppressed among women in the Indian society, Dr.Ambedkar saw question of Dalit women's identity of self respect as crucial to social reform and to the revolutionary struggle. Thus, his conception of identity was broad based and Dalit women constituted an intrinsic thought of his cause and struggle. There are several occasions Dr.Ambedkar addressed the Dalit women and from these speeches it is apparent that he conceived the question whether personal or social as being essentially a political question. The first and fore most agenda given by Dr.Ambedkar to Dalit women is to denounce the clothing of half-saris and cheap ornaments which are marked for them by the

caste system and designed to keep them enslaved. In a speech at Mahad Satyagraha Parishad, he appealed to Dalit women to leave behind old customs and wipeout the identity of untouchability attached to it and leading a life of self-respect.

**Dalit Women Political Participation**

Women participated in Dr.Babasaheb Ambedkar movement in large numbers. They spontaneously campaigned to fight the injustice and are still doing that. Thousands of women have struggled and are struggling against the exploitation of women as a class. Whenever the Dalit movement has asserted the issue of its identity, women have aggressively and committedly fought along with Dr.Ambedkar has been a strong inspiration for this awakening among women. The Dalit woman has played a significant role in various struggles, ranging from the struggle against the untouchability to the fight for women's patriarchal domination in the society. She is a part of the struggle for the self-respect and dignity.

Ambedkar instructed them to not tolerate or cooperate with their men if they acted against the community pledge to avoid eating carrion.[xiii] They were also not to feed their husbands if they consumed alcohol. By also underscoring birth control, Ambedkar constantly affirmed women's autonomy over their bodies. Moreover, he also defended R.D. Karve, a birth-control advocate and sexologist, during a lawsuit against him. Thus, contrary to upper castes' strengthening of Brahmanical patriarchy through consent and coercion, Dalit radicals like Ambedkar envisaged contesting and challenging Dalit Patriarchy as part of the battle for Dalit women's rights. Working on the personal and collective agency of Dalit women through their education played a major role in this reconstruction.

By invoking the paradigm of dignity, good habits (no alcohol, no carrion), orderliness, decency and cleanliness, Ambedkar sought to inculcate in women and men new social forms of discipline. He emphasized that Dalit women would play a major role in representing the community in its march towards a certain modernity. He stressed that a woman has an individual freedom and equality with men. In the process, he fashioned a new self and 'womanhood'. He not only aimed to established a regulatory technique that constrained and at the same time induced every Dalit woman to work upon herself, control her body and make changes, he also encouraged her to appreciate these changes.

**Perspectives on Social Evils**

An impassioned appeal to cast off the evil practices and customs among Dalits such as Jogins, Muralis was made by Dr.B.R.Ambedkar at a meeting in Damodar Thakersay Hall, Bombay, on Tuesday the 16th June 1936, at night. The

meeting was largely attended by men and women belonging to the *Devadasi*, *Potraje*, *Bhute*, *Aradhi*and *Jogtini* sects and was held to accord support to the mass conversion move inaugurated at Yeola. After several speakers, both men and women, had addressed the gathering on the need for a change of faith as a step toward social freedom, Dr.Ambedkar made a fervent appeal, especially to the women, most of who had come from Kamathipura.

Dr.Ambedkar said, "Whether you change your religion along with us or not, it does not matter much to me. But I insist that if you want to be with the rest of us you must give up your disgraceful life. The Mahar women of Kamathipura are a shame to the community. Unless you are prepared to change your ways, we shall have nothing to do with you, and we shall have no use for you. There are only two ways open to you; either you remain where you are and continue to be despised and shunned, or you give up your disgraceful profession and come with us.

**Contribution of Dr.Ambedkar as Labour Minister**

Dr.Ambedkar joined as a member in "Viceroy Labour Executive Council" on July 20th 1942 and played a vital role in amending the industrial Acts and achieved benefits like reduction of working hours, leave with pay, maternity benefit (Amendment) Bill[xiv] legislation relating to factories and mines, social security, welfare outside of the work, the Employees Provident Fund and Miscellaneous Provisions Act, Stopping Retrenchment and Compensation Act.[xv] On 8th April 1946 Dr.Ambedkar introduced a resolution in Central Assembly and an Act was passed for the welfare of labour of Mica mines. The Act provided several amenities to child and women labour like working conditions, working hours and wage differences etc.[xvi]

Dr.Ambedkar tried to help not only the industrial labour women but also the other women. He said that it should be the foremost duty of Indian women to integrate themselves to help their fellow sisters, who are under the despised and degraded professions like the flesh-trade, beggary etc. so educated women should join social work to educate, organize and unite all depressed women. During his tenure Dr.Ambedkar took steps to amend the Maternity Bill of the Bombay Legislative Council on 18th February 1927. His arguments on the Maternity Benefit Bill and on Birth Control were quite relevant to recognize the dignity of women. He vehemently supported the maternity bill. His argument was - "It is in the interest of the nation that the mother ought to get a certain amount of rest during the pre-natal period".

At the All India Depressed Classes Women's Conference held at Nagpur on 20th July 1940, Dr.Ambedkar emphasized that there could not be any progress without women. "Women must be in a position to prevent conception and

bringing forth progeny, which should be entirely dependent on the choice of women. Society would in no way profit by the addition of unwanted progeny".

**Pragmatic approach to Women's Rights and Empowerment: Hindu Code Bill**

One of the most important contributions of Dr.Ambedkar in relation to elevation of the status of women in India was his to draft and introduce the Hindu Code Bill in the Constituent Assembly. Being India's first Law Minister and chairman of the Drafting Committee of the Constituent Assembly he thought it is appropriate to free women from the age old enslavement by reforming the Hindu social laws created by Manu. The Hindu Code Bill, the most formidable legislative measure of modern India, sought among other reforms, to put an end to a variety of marriage systems prevailing in India and legalize only monogamous marriages. The Code also sought to confer on women the right to property and adoption which had been denied by Manu. It put men and women on ban to property and adoption which had been denied by Manu. It put men and women on an equal level in all legal matters. Hindu Code Bill contained new rules on seven different matters i.e., (1) the right to property of a deceased Hindu who has died without making a will, equal to both male and female (2) the order of succession among the different heirs to the property to a deceased dying intestate (3) the law of maintenance (4) marriage (5) divorce (6) adoption (7) Minority and guardianship.

While moving for consideration of the Hindu Code Bill Dr.B.R.Ambedkar in his introductory speech in the Constituent Assembly (Legislative) on 24th Feb 1949 said: "This is in no sense a revolutionary measure. I say that this is not even a radical measure".[xvii] On the whole the Hindu Code Bill met with stiff opposition both inside and outside the parliament. It aroused widespread and bitter controversy. Social reactionaries raised a hue and cry in the name of religion.

Among many critics of the Hindu Code Bill was Dr.Shyama Prasad Mukherjee who said that "the Hindu Code Bill would shatter the magnificent structure of Hindu culture and stultify a dynamic and catholic way of life that had wonderfully adapted itself to change for centuries". Pandit Madan Mohan Malviya warned that if Bill was passed it would weaken the very fabric of Hindu society. Sardar Bhopedra Singh Mann termed the Code a conversion law and added that Manu of Ambedkarian religion should not be imposed upon him. Ambedkar had to face stiff opposition from even the congress stalwarts like Dr.Ragendra Prasad and SardarVallabhai Patel.

In spite of all his efforts, Ambedkar was not successful in getting the Hindu Code Bill passed into a law. Bill was let down as discussion could not be

complete. To quote Ambedkar, "It will kill and buried unwept and unsung after four clauses were passed".[xviii] Ambedkar resigned from his seat in cabinet.

Students of Siddarth College had organized a Student Parliament on Wednesday, 11th January 1950, coinciding the presence of Dr.A.R.Ambedkar in Bombay. He was specially invited to talk on "Hindu Code Bill". In his speech Dr.B.R.Ambedkar said. "It would be wrong to describe the Hindu Code Bill as either radical or revolutionary".[xix] The purpose of the Hindu Code Bill was, he explained to codify and modify certain branches of the Hindu Law.[xx]

As regards the authority under which the Code was drafted, he said that the modifications proposed were based on the Hindu *Shastras* and *Smritis*. The property was governed by *Dayabhog*system: the child belonged to the caste of the father under *Pitrisavarnya;* divorce was supported by *Kautilya* and *ParasharaSmriti;* and women's rights to property were supported by *Brihaspati* Smriti," he concluded.[xxi]

On December 26, 1950 Dr.B.R.Ambedkar while addressing a rally of 50,000 people under the auspices of the Belgaum District branch of the Scheduled Castes Federation stated. "The Bill was only aimed at removing the obstruction of Law in the social advancement of women. On wealth depends independence and a woman must be very particular to retain her wealth and rights to help retain her freedom". The mainstream women's organizations including All India Women's Congress failed to support the Hindu Code Bill when Ambedkar presented it to the parliament nor did they condemn the *Morcha* organized by the women of *Jansangh* in opposition to bill.

The women organizations of Kolhapur presented an address to Dr.B.R.Ambedkar on 25th December 1952. The programme was arranged at Rajaram theatre. Large number of women and men were presented for this programme. Mrs.Vimlabhai Bagal made an introductory speech and read the address. Various women organizations welcomed Dr.B.R.Ambedkar and Mrs. Savitha Ambedkar; Major Dadasaheb Nimbalker also welcomed Dr.Ambedkar and Mrs.Ambedkar.

Replying to their address Dr.Ambedkar referred to the Hindu Code Bill and said, "None of the prominent Indian women leaders were really interested in the social progress of women and stated that the Hindu Code Bill was now just like milk spoiled by mixture with a bitter acid.[xxii] He added that if they wanted to have the 'Hindu Code Bill' passed, they should find two fat women to fast".

**Conversion to Buddhism:**

When Ambedkar gave a clarion call for conversion at Yeola, women supported his move. Expressing the support of the Mahila Parishad for a resolution on conversion, Janabai More said, "we all know that this Bombay Presidency

Mahaar Parishad has been called so that we can exchange views on the public call for conversion that Dr. Babasaheb made at Yeole. I am standing here on behalf of the women's community of Bombay to support conversion."

Miss Rajabai Gaikwad said, "I too am here to give support to conversion on behalf of my sisters. Dr. Babasaheb, we women request you to show us the religion in which we will have the chance to be brave mothers, brave sisters and braves wives. Supporting the resolution Mrs. Sonubai Daavare said, "We should only embrace a faith in which we have the right to be treated with humanity. They also expressed without a religious revolution we have no hope. The women were extremely conscious about the issue of conversion and they frankly expressed the hope that the freedom they enjoyed in Dalit society would not come to an end after the change of faith. The untouchable women of Bombay had expressed their views thus, "Babasaheb, give us a religion that we can feel is ours. Give us a faith that will allow us to live as human beings." The day the ceremony was to take place was fixed as 14th October 1956. By a happy coincidence, the 2500th anniversary of the Buddha's death or *parinirvana* too happened to be in the same year.

During Deeksha Ceremony an unwritten command was circulated that everyone must wear white for the initiation ceremony. People were buying white clothes in a festive mood. Many even sold or pawned their little bits of jewellery to buy white saris and dhotis. In the 14-acre open ground of the Shraddhanand Peth in Nagpur, men and women volunteers spontaneously stationed themselves to direct the people gathering there. Some women set up stalls providing food and drink. There was a medical squad with doctors and nurses. Women took care of the arrangements for drinking water.

After Babasaheb's death Buddhist women all over picked up the torch of social and religious activity. Women's associations sprang up everywhere, from an all-India Buddist Women's association to village-level societies. Some women became Bhikkunis and devoted all their time to public work. The rites of birth, marriage and death began to be performed according to the Buddhist Dhamma. Women gave up their old name and took new names. Instead of Hindu names like Ganga, Bhagirathi, Lakshmi, Parvati etc., names from the Buddhist tradition like Sujata, Gautami, Mahamaya, Amrapali, and Vaishali became common. Women gave up their rituals and fasts and embraced a new way of life. The custom of giving girls to the god under the name of Devadasis, Muralis and Joginis came to an end among neo-Buddhists after their conversion.

**To sum up**

Dr.B.R.Ambedka was one of the biggest champions of women empowerment in India. His efforts for the empowerment of women led to the incorporation of several provisions in the constitution. By introducing the Hindu

code bill Ambedkar initiated the process of empowerment, by granting the right to divorce, right to inheritance of property and adoption against the age-old deprivations due to patriarchy and ensure equality of women.

**Notes and References**

---

[i] . Dr.Babasaheb Ambedkar writings and speeches,(BAWS) Vol-1, pp. 5-22
[ii] . BAWS, Vol-17 Part-2, pp.109-30
[iii] . BAWS, Vol-4, pp. 215-25
[iv] . BAWS, Vol-4, pp.226-32
[v] . BAWS, Vol-3, pp. 429-37
[vi] . BAWS, Vol-14, Part -2, pp. 4-12, 267-81
[vii] . BAWS, Vol-14, Part -2, Annexure-1, pp. 1317-27)(82)
[viii] . BAWS, Vol.17, part-3,p.505
[ix] .BAWS, Vol.1, p.14
[x] . BAWS, Vol.1, p.11
[xi] . BAWS, Vol.1, p.16
[xii] . BAWS, Vol.17,part-1, p.25
[xiii] . *Bahiskrut Bharat, 3 February 1928, Keer 1962, 70-71, 104-105; Pawar and Moon 1989,90*
[xiv] . BAWS, Vol.10, p.265
[xv] . BAWS, Vol.10, p.267
[xvi] . BAWS, Vol.10, p.275
[xvii] . BAWS, Vol.17, part-3, p.396
[xviii] . BAWS, Vol.14, part-3, p.396
[xix] . BAWS, Vol.17, part-1 & 2, The Hindu Code Bill, p.1324
[xx] .Ibid
[xxi] .Keer, Danunjay " Ambedkar life and Mission, Navajeevan Publishers, 1954, pp.417-418
[xxii] . BAWS, Vol.17, part-3, p.411

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN: 2277-7881; IMPACT FACTOR –4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# भावात्मकमनोवृत्तिषु इच्छायाः अध्ययनम्

## (The study of Desire in Emotional Attitudes)

**Dr. N.VENKATA SREENIVASA RAO**
**Dept. of Education**
**R.S.Vidyapeetha, Tirupati**

- - -

साक्षात् क्रियजनकत्वेन प्रयत्नात्मकास्ते भावात्मकाः सुखदुःखेच्छाद्वेषाः एवेदानीं तेषु इच्छायाः निरूपणविषये अत्र किञ्चित् प्रस्तूयते मया। सुखदुःखेच्छाद्वेषाणां (अन्तःकरण) भावविशेषरूपत्वात्ते भावात्मकाः उच्यन्ते। अलंकारादि शास्त्रेषु तेषां विशेषेण निरूपणं वर्तते। इच्छादीनामेव भावात्मकमनोधर्मानामत्र निरूपणं क्रियते।

**इच्छानिरूपणम्–**

"यज्जातीयस्यार्थस्य सन्निकर्षात् सुखमात्मोपलब्धवान् तज्जातीयमेवार्थं पश्यन्नुपादातुमिच्छतीत्युक्तं"[१] वात्स्यायनेन न्यायसूत्रभाष्ये। "अहमिच्छामीत्यादिप्रतीतिसिद्धेच्छात्वसामान्यवती अर्थित्वलक्षणा इच्छा"[२] –इत्युक्तं शिवादित्येन। सा च ममेदं स्यादित्येवमादिरूपा। सुखत्वज्ञानं इष्टसाधनताज्ञानं वा इच्छोत्पत्तौ कारणम्। सा च पुनः प्रवृत्तौ कारणम्। तथा चोक्तं प्राचीनैः–ज्ञानजन्या भवेदिच्छा इच्छाजन्या भवेत् कृतिः। सुखत्वज्ञानजन्या च इच्छा भवतीत्यर्थः। इच्छा पुनश्चिकीर्षाद्वारा कृतौ प्रयत्ने हेतुर्भवति। तदनन्तरं च शारीरचेष्टारूपा क्रिया जायते। उक्तं च–

**निर्दुःखत्वे सुखे चेच्छा तज् ज्ञानादेव जायते।**
**इच्छा तु तदुपाये स्यादिष्टोपायत्वधीर्यदि।।**[३]

सुखत्वज्ञानात् सुखे, दुःखाभावत्वज्ञानाद् दुःखाभावे, तदन्यतरसाधनत्वज्ञानाच्च सुखसाध्ने दुःखाभावसाधने वा इच्छा जायते इति भावः। इच्छा यथा चिकीर्षाद्वारा प्रवृत्तिहेतुर्भवति तदग्रे निरूपयिष्यते।

"सा चेच्छा तार्किकादिमते अहमिच्छामीत्यादि प्रतीतेरात्मविश्वासगुणः एव मानसप्रत्यक्षगम्या"[४], ज्ञानसुखादिवत् तृतीयक्षणविनाशिनी च। ज्ञानवत् सविषया च। तथा चोक्तं विश्वनाथेन–"इच्छा द्विविधा–फलविषयिनी उपायविषयिणी च, फलं तु सुखं, दुःखाभावाश्च। तत्र फलेच्छां प्रति फलज्ञानं

कारणम्। अत एव पुरुषार्थः सम्भवति, यद्ज्ञातं स्ववृत्तियेष्यते स पुरुषार्थः इति तल्लक्षणम्। इतरेच्छानधीनेच्छाविषयत्वं फलितोऽर्थः। उपयेच्छां प्रतीष्टसाधनताज्ञानं कारणम्"[५]।

उक्तं च प्रशस्तपादेन–"स्वार्थं परार्थं वा अप्राप्तप्रार्थनेच्छा। सा च आत्ममनसोः संयोगाद् सुखाद्यपेक्षाद् स्मृत्यपेक्षाद्वोत्पद्यते। प्रयत्नस्मृतिधर्माधर्महेतुः"[६]। सुखाद्यपेक्षाद् सुखे इच्दा, सुखाभिज्ञस्य सुखस्मृतिपूर्वकः पूर्वसुखसाधनसजातीये इच्छा उत्पद्यते इति भावः। इच्छा पुनः प्रयत्ने प्रवृत्यादौ, अभिलषितविषयं संस्कारोत्पादादिच्छाविषये पुनः स्मृतौ, प्रवृत्तिद्वारा धर्माधर्मयोश्च हेतुर्भवतीत्यर्थः।

उक्तं च तेनैव– "कामः, अभिलाषः, रागः, संकल्पः, कारुण्यम्, वैराग्यम्, उपधा, भावः इत्येवमादाय इच्छाभेदाः। मैथुनेच्छा कामः, अभ्यवहारेच्छा (भोजनेच्छा) अभिलाषः, पुनः पुनिर्वषयानुरंजनेच्छा रागः। अनासन्नक्रियेच्छा संकल्पः स्वार्थमनपेक्ष्य परदुःखप्रहानेच्छा कारणम्, दोषदर्शनाद् विषयत्यागेच्छा वैराग्यम्। परवंचनेच्छा उपधा। अन्तर्निगूढेच्छा भावः। चिकीर्षा–जिहीर्षेत्यादि क्रियाभेदादिच्छभेदाः भवन्ति"[७]।

उक्तं च जयन्तभट्टेन–"अनुकूलेष्यर्थेष्वभिलाषलक्षणो रागः, कामो मत्सरः स्पृहा तृष्णा लोभः इति पञ्चप्रकारो रागपक्षः, स्त्रीसम्भोगेच्छा कामः, यदन्यस्मै दीयमानमपि वस्तु धनवन्न क्षीयते तदपरित्यागेच्छा मत्सरः, अनात्मीयवस्त्वादित्सा स्पृहा, पुनर्भवप्रतिसन्धानहेतुभूतेच्छा तृष्णा, निषिद्धद्रव्यग्रहणेच्छा लोभः इत्यभिलाषप्रकारभेदाद् रागपक्षः एवायम्"[८]। एवं च उक्ताः सर्वे आत्मगुणाः (सांख्यादिमतेन अन्तःकरण धर्माः) इच्छायाः एव प्रकारभेदाः बोध्यव्याः। अतः कामशास्त्रोक्तस्य रतिशृङ्गारादेरत्रैव इच्छापदार्थेऽन्तर्भावः। तेषां रतिविशेषे रतिसाधनांगनादौ वा इच्छारूपत्वात्।

एवं भक्तिशास्त्रोक्तभावभक्त्यादिपदार्थानामपि परमेश्वरेऽनुरागविशेषरूपत्वादिच्छायामेवान्तर्भावः। स्नेहप्रीत्यादिकमपि सर्वमिच्छायाः प्रकारभेदाः एव। ननु विषयस्त्रपादिप्रीतेरिच्छारूपत्वेऽपि केयमात्मप्रीतिर्या "आत्मानमेव प्रियमुपासीत"[९] "आत्मनस्तु कामाय सर्वं प्रियं भवति"[१०]।

"प्रेयोऽन्यस्मात् सर्वस्मादन्तरतरं यदयमात्मा"[११] इत्यादि उपनिषद्वाक्येषु श्रूयते? अप्राप्तविषये एव इच्छायाः सम्भवात् न सा नित्यप्रापते निजात्मनि सम्भवतीति चेन्न। आत्मस्वरूपसुखमात्रावलम्बिनी सात्त्विकी अन्तःकरणवृत्तिरेव आत्मप्रीतिरिच्छश्रद्धादि व्यतिरिक्ता एवेति वेदान्तानुसारिविद्यारण्यमतम्।

तथा च उक्तं–

तर्ह्यस्तु सात्त्विकी वृत्तिः सुखमात्रानुवर्तिनी।

प्राप्ते नष्टेऽपि सद्भावादिच्छातो व्यतिरिच्यते।।

सुखे वैषयिके प्रीतिमात्रमात्मा त्वतिप्रियः।

सुखे व्यभिचरत्येषा नात्मनि व्यभिचारिणी।।[१२]

सुखे इत्यस्य वैषयिकसुखे इत्यर्थः। नित्ये आत्मसुखे अतिप्रीतिस्त्वव्यभिचारिण्येव।

पातंजलेऽपि–"सुखानुशयी रागः"[१३]– इत्यत्रेच्छायाः प्रबलायाः एव रागशब्देन निरूपणं कृतम्। उक्तं च भाष्ये "सुखाभिज्ञस्य सुखानुस्मृतिपूर्वः सखे तत्साधने वा यो गर्धस्तृष्णा लोभः स रागः इति"[१४]। उक्तं च वाचस्पतिना "अनुभूयमाने तु सुखे नानुस्मृतिमपेक्षते, तत्साधने तु स्मर्यमाने दृष्यमाने वा सुखानुस्मृतिपूर्वः एव रागः, दृश्यमानमपि हि सुखसाधनं तज्जातीयतया चास्य सुखहेतुत्वमनुमाय इच्छति"[१५]। उक्तं च योगवार्तिके–"तेन सुखसाक्षात्कारतः सुखस्मृतितश्च रागो भवतीति रागस्य कारणमुक्तम्"[१६]। माधवसरस्वत्या तु वैशेषिकरीत्या सर्वदर्शनकौमुद्यां लक्षणादिकमुक्तमिच्छायाः। यथा–"इष्टव्यवहारहेतुर्गुणः इच्छा। इच्छामीत्यनुभवसिद्धा। चिकीर्षा–श्रद्धा–संकल्पादयः इच्छाविशेषाः। सुखमिच्छाम्, दुःखं द्वेषम्, इच्छाद्वेषौ प्रयत्नमिति न्यायेन सुखादिच्छा जायते, प्रयत्नं च जनयति। अत एव इष्टसाधनताज्ञानात् इच्छद्वारा पुरुषस्य प्रवृत्तिरित्युच्यते। शास्त्र इष्टं तु सुखमेव"[१७]।

चिकीर्षाऽपीच्छाविशेषः एवेति पूर्वमेवोक्तम्। कर्तुमिच्छा चिकीर्षा इति सरलार्थः। तथाऽपि तु इच्छासाधारणादस्या विशेषात् पृथङ्निरूपणम्। वृष्ट्यादौ हीष्टसाधनताज्ञानादि इच्छोत्पत्तावपि न चिकीर्षा जायते कृतिसाध्यत्वज्ञानाभावात्। कृतिसाध्यत्वज्ञाने सति इष्टसाधनताज्ञानात् चिकीर्षा जायते एव पाकादौ। तथा चोक्तं–"कृतिसाध्यत्व प्रकारिका कृतिसाध्यविषयिणीच्छा चिकीर्षा। पाकं कृत्या साधयामीति तदनुभवात्। चिकीर्षां प्रति कृतिसाध्यता ज्ञानमिष्टसाधनता ज्ञानं च कारणम्। अत एव वृष्ट्यादौ कृतिसाध्यताज्ञानाभावान्न चिकीर्षा। अपि च बलवद्द्विष्टसाधनताज्ञानं (चिकीर्षायां) प्रतिबन्धकमतो मधुविषसंपृक्तान्नभोजनेन चिकीर्षा। कस्य चिन्मते बलवदनिष्टाजनकत्वज्ञानं कारणम्"[१८]। तन्मते तु सर्वदा सर्वत्रैव–इदं बलवदनिष्टं न जनयिष्यति' इति ज्ञानं चिकीर्षायां कारणतया अपेक्षितं

स्यात्, तन्न सम्यक्, अनुभवविरोधात्। तादृशज्ञानं विनापि कृतिसाध्यताज्ञानादिष्टसाधनताज्ञानाच्च भोजनादौ चिकीर्षा जायते। बलवद्द्विष्टसाधनत्वज्ञानस्य प्रतिबन्धकत्वेन तदभावस्यैव तत्र सत्त्वात् चिकीर्षोपपत्तेः। मधुविषसंपृक्तान्नभोजने तु निचिकीर्षा, बलवद्द्विष्टसाधनत्वज्ञानस्य प्रतिबन्धकस्य तत्र सत्त्वात्। अत्रापि द्विष्टस्य (दुःखस्य) इष्टापेक्षया बलवत्तरत्वज्ञानमपेक्षितम्। अत एव दुःखजनके रन्धनादौ द्विष्टसाधनत्वज्ञानसत्त्वेऽपि तद्दुःखस्य इष्टापेक्षयाऽल्पीयस्त्वज्ञानात् जायते एव चिकीर्षा।

।। स्वस्ति।।

टिप्पणीः

१. न्यायसूत्रभाष्यम्,१-१-१०
२. सप्तपदार्थी, ८९ (C.S.S.)
३. भाषापरिच्छेदः,५०३ (N.S.)
४. प्रशस्तपादभाष्यम्,पृ.सं.१३२ (V.S.V.)
५. सिद्धान्तमुक्तावली,पृ.सं.५०३ (N.S.)
६. प्रशस्तपादभाष्यम्,पृ.सं.६३४ (V.S.V.)
७. प्रशस्तपादभाष्यम्,पृ.सं.६३५-६३६ (V.S.V.)
८. न्यायमञ्जरी-२,पृ.सं.७ (चौखम्बा)
९. बृहदारण्यकोपनिषद्,१-४-८
१०. बृहदारण्यकोपनिषद्,२-४-५
११. बृहदारण्यकोपनिषद्,१-४-८
१२. पञ्चदशी,१२-२२-२५
१३. पातञ्जलयोगसूत्राणि,२.७
१४. योगसूत्रभाष्यम्,२.७
१५. तत्त्ववैशारथी,२.११
१६. योगवार्तिका,२.७
१७. सङ्गीतरत्नाकर सर्वदर्शन कौमुदी, पृ.३०.
१८. सिद्धान्तमुक्तावली,पृ.सं.५०४ (N.S.)

परिशीलितग्रन्थाः

१. न्यायसूत्रभाष्यम्–वात्सायनः
२. सप्तपदार्थी–शिवादित्यः (C.S.S.)
३. भाषापरिच्छेदः–वाच्सपतिमिश्र (N.S.)
४. प्रशस्तपादभाष्यम्–प्रशस्तपादः–वाराणसी संस्कृतविश्वविद्यालयः
५. न्यायमञ्जरी–जयन्तभट्टः–चौखम्बा
६. बृहदारण्यकोपनिषद्–श्रीभाष्यः
७. सिद्धान्तमुक्तावली–विश्वनाथः (N.S.)
८. योगसूत्रभाष्यम्–व्यासः
९. योगवार्तिका–विज्ञान भिक्षुः
१०. पञ्चदशी–विद्यारण्यः
११. तत्त्ववैशारथी–वाचस्पतिमिश्र
१२. सङ्गीतरत्नकरसर्वर्शनकौमुदी–माधवसरस्वती

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN : 2277-7881; IMPACT FACTOR – 4.527; IC VALUE:5.16; ISI VALUE:2.286
VOLUME 6, ISSUE 3(1), MARCH 2017

# POONA PACT BETWEEN AMBEDKAR AND GANDHI

**Ch.Bikshapathi**
Sr.Lecturer in Political Science
Sardar Patel College
Secunderabad

**Abstract**:

The Poona Pact is the consequence of the Communal Award, which British Prime Minister Ramsay MacDonald announced introducing separate electorates for different communities in India, including the Depressed Classes. The Communal Award was endorsed by Dr. B.R. Ambedkar, since it granted separate electorates for depressed classes. Mahatma Gandhi embarked on fast until death, In order to express his opposition to the Communal Award. To minimise negative effects of Gandhi's fast, to provide the Depressed Classes representation and rights within the framework of joint electorates instead of separate electorates and to accommodate the concerns of both the Depressed Classes and the Caste Hindus, the Poona Pact was designed. Ambedkar participated In discussion with Gandhi to preserve the rights of depressed classes and accepted the poona pact.

**Keywords**: Caste Hindu, Joint Electoral, Separate Electoral, Reserved Seats, Fast Until Death.

## Introduction:

In the first and second round table conference, Ambedkar played a crucial role in getting the communal award for the depressed classes. He relentlessly fought for upliftment of the scheduled castes. The second round table conference concluded without any resolution, as there was strong debate between Ambedkar and Gandhi about separate electorates. Gandhi said that it will divide the hindu community. And also stated that Congress would never accept this type of separate electorates for the depressed classes as depressed classes are part of the hindu religion. After returning to India, Gandhi planned to start the civil disobedience movement, then he was imprisoned in yerwada

jail in Poona. The British Prime Minister Ramsay MacDonald announced the Communal Award on 16th August 1932. On hearing about the communal award, Gandhi started fast until death in yerwada jail. Then to stop the fasting of Gandhi, a committee was formed, it consisted of Bar. Jaikar, Sir Tejbahadur Sapru,. Mathuradas Wasanji, Pandit Madan Mohan Malviya as representatives of the Caste Hindus to negotiate with Ambedkar to withdraw the demand of separate electorates for the depressed classes. Ambedkar refused to agree with them. But there were many pressures on Ambedkar which persuaded him to participate in the poona pact.

**Influences on Ambedkar to participate in the poona pact:**

Dr. Ambedkar's acceptance to compromise was mainly motivated by Mahatma Gandhi's deteriorating health. Dr. Ambedkar was worried that Gandhi would pass away since he was aware of the serious consequences and possible outcomes of his fast. Dr. Ambedkar noted that some Caste Hindus have changed their opinion on the rights and social status of the Depressed Classes. He thought that this change provided a chance for communication within the Hindu community. He felt that the talks would result in a consensus that would strengthen the position of the Depressed Classes in India.

An ardent supporter of the rights and welfare of the Depressed Classes, Dr. Ambedkar worked to protect their interests. Although he had first insisted that they have separate electorates, he saw that the communal award had sparked heated debates within the Hindu community. He decided to get into discussions in order to find an agreement and prevent further disagreement in order to make sure that the interests of the Depressed Classes were protected.

During the negotiations, Ambedkar prepared a charter of demands containing demand for 197 reserved seats in the provincial legislature, 16 in bombay, 50 in bengal, 30 in madras, 10 in punjab, 11 in assam, 20 in central provinces and berar, 20 in behar and orissa and 40 in uttar pradesh. The committee negotiated for 126 seats. And agreed for 150 to 155 seats.

He demanded reserved seats in both the houses in the central legislatures and also in all the local bodies based on the proportion of the population.

**Gandhi and ambedkar discussions**

Dr. Ambedkar had been attempting to resolve through negotiations with other Caste hindu leaders about the impasse created by the Communal Award, which had given separate electorates to the Depressed Classes within the Hindu community. Then conversation took place while Mahatma Gandhi was on a hunger strike in yerawada jail.

Dr. Ambedkar, Jayakar, Birla, Chunilal Mehta and Rajagopalachari paid a visit to Gandhi in prison to talk about the fast and the continuing discussions. Gandhi was weakening as a result of his deteriorating health. Dr. Ambedkar started his conversation by saying "Mahatmaji, you have been very unfair to us." then clarified to Gandhi about his stance and the demands he had made throughout the discussions during the conversation. In order to defend the rights of the Depressed Classes, he stressed the necessity of statutory safeguards and demanded a referendum for the primary election system after a period of ten years and furthermore 15 years for reserved seats.

Mahatma Gandhi accepted the concept of the primary election system and referendum, to decide the rights of the Depressed Classes within the Hindu community but said that the referendum should not exceed more than five years. Gandhi thought that the profoundly established evil of untouchability could not be completely eradicated by a simple statutory promise. Gandhi asked Dr. Ambedkar to provide one more opportunity to Hinduism, to atone voluntarily for its terrible sins of untouchability. Gandhi issued an ultimatum regarding the time period of the referendum.

Dr. Ambedkar was certain that he would not back down on the issue of the referendum's time period. Instead of five years, he maintained that the referendum should be held no earlier than ten years. After more consideration, Gandhi's son, Devdas Gandhi with tearful eyes, explained Gandhi's health condition to Ambedkar. The negotiating team decided to forgo including a referendum as a condition of the pact to reach an agreement and end the impasse in the discussions.

**Provisions of Poona Pact:**

The Poona Pact intended to provide the Depressed Classes political representation under the existing electoral system. It proposed that seats in

both the central and provincial legislatures be reserved for those from the scheduled castes.The Poona Pact's acceptance of joint electorates was one of its main clauses. With this method, every voter would be able to cast their vote, regardless of caste or community. With this, the idea of separate electorates for depressed classes was abandoned.

A distinctive primary election system was developed to elect the candidates, who would represent the Depressed Classes in the reserved seats. Each constituency would have an electoral college made up of all members of the Depressed Classes who were included on the general electoral roll. A panel of four candidates from the Depressed Classes would then be elected by this Electoral College in a single ballot system. The four candidates for the reserved seats who received the most votes in the primary election would represent those seats in official capacity. Then the general electorates would elect one candidate from the panel of four. Primary election system was only meant to be in place for a limited time. Unless an early termination was mutually agreed upon, it would expire after the first 10 years.

The Poona Pact allocated the 148 seats in provincial legislatures reserved for members of the Depressed Classes. The reserved seats were distributed as 30 seats in Bengal, 30 seats in Madras, 7 seats for Assam, 15 seats in Bombay with Sind, 20 seats for the United Provinces, 18 seats in Orissa and Bihar, 8 seats in Punjab and 20 seats in Central Province. And 18% of the seats in the central legislature were allocated to depressed classes in British India's general electorate.

The Poona Pact stressed that no one should be subjected to social limitations because of their caste. It stated the abolition of discriminatory practices like untouchability and proclaimed that everyone should have equal rights while using public places like schools, roads, and institutions. The agreement also stipulated that a sufficient amount of the educational grant would be set aside to provide members of the Depressed Classes with educational facilities.

Overall, representatives of the Depressed Classes and Caste Hindus came to a compromise accord known as the Poona Pact. While giving increased political representation and rights for the Depressed Classes within the framework of joint electorates, it aimed to strike a balance between the interests of the Depressed Classes and Caste Hindus

On the 24th september 1932, on behalf of Gandhi, madan mohan malaviya signed the poona pact. Ambedkar accepted and signed the pact. The tension in the atmosphere of the nation vanished with ambedkar's acceptance of poona pact

**Madan Mohan Malaviya's role:**

Madan Mohan Malaviya played a key role in the negotiations leading to the poona pact. He maintained relations with Ambedkar and convinced him to agree for the poona pact. Throughout the negotiations, Madan Mohan Malaviya presided over meetings of heated arguments. The reason for coming to an agreement was his ability to keep the conversations calm and in order. He presided over meetings, showed appreciation for other people's efforts, backed the resolution approving the pact, and continued to engage in discussions on problems affecting the Depressed Classes.

The conference where the Poona Pact discussions took place was presided over by Madan Mohan Malaviya. Because of his position of power and accountability, he made sure that the debates were well-structured and productive. Madan Mohan Malaviya extended his appreciation to everyone who helped bring about the Poona Pact during the meeting held to confirm it. He expressed his gratitude for Dr. B.R. Ambedkar in particular, recognizing the crucial part that Ambedkar had played in the discussions. Malaviya favoured the resolution of the Poona Pact and he emphasised the necessity of Hindus upholding the terms of the pact by saying that they had full responsibility for putting the agreement into effect.

**Conclusion**

The tremendous support of Ambedkar and strong opposition of Gandhi towards the communal award created turbulence in British Indian politics. In fear of the consequences of Gandhi's fast, a group of caste Hindus formed a committee to convince Ambedkar to withdraw the separate electorates. After several negotiations, Ambedkar agreed to some resolutions in compensation of losing separate electorates. For Gandhi's approval on the agreed terms, Ambedkar and the committee visited Gandhi in Yerwada jail. Due to Gandhi's objection regarding the referendum, the negotiations still went on. Ambedkar received many life threatening letters and warnings from followers of Gandhi, to agree upon the demands of gandhi. It is not easy to oppose and withstand

Gandhi as he had a huge following all over india. Though Ambedkar's life was in threat, he stood firm on his demands to favour the depressed classes. Balancing the demands of both Gandhi and Ambedkar, the Poona pact was signed. Although Ambedkar was not fully satisfied with the pact, he signed it to protect the depressed community's rights.

**Reference:**

1. Dr. Babasaheb Ambedkar Writings and Speeches, Volume-17, Part-1, 2014.
2. What Congress and Gandhi have done to the untouchables, Dr. B. R. Ambedkar, 1945
3. Dr. B. R. Ambedkar- The Man and His Message, Sudarshan Agarwal, 1991.
4. Gandhi-ambedkar Dispute, A.K Vakil, 1991.
5. Dr.Ambedkar Life and mission, Dhanajay Kheer, 1954.