

## **Municipal Solid Waste Characterisation and Quantification as A Measure towards Effective Waste Management in Bolpur Municipality, West Bengal**

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### **Abstract**

Municipal Solid Waste (MSW) and its management is now becoming a matter of headache as well as challenges for the civil bodies. Growing urbanisation promotes the generation of solid waste and its unscientific handling causes health hazard and degrades the quality of urban environment. This is because, urbanisation in most of the cities and towns of India are not well associated with rapid improvement of urban amenities and their governance. Being an emergent urban centre, urbanisation in Bolpur town is marching at rapid strides. As per 2011 census, its population almost touches one lakh but increasing population does not always mean increasing level of urban development. Rather high population promotes waste generation as it is an intrinsic part of human existence. According to a report from Bolpur municipality, the solid waste generated in this town is around 95 metric tonnes per day which can be a serious threat to the environment as well as urban life if it cannot be disposed or managed properly. In this paper, an attempt has been made to evaluate the major parameters of MSW, in addition to a comprehensive review of solid waste generation, its characterization, collection and disposal as a measure towards effective waste management.

**KEYWORDS-** Municipal Solid Waste (MSW), urbanisation, governance, waste management etc.

### **Introduction**

India is an agriculture based developing country. But in the last few decades, India is shifting from agro-based country to an industry and service-oriented country and these industrial and service sectors are basically concentrating in the urban areas. As a result, population is rapidly increasing in the urban areas. As per the 2011 census, almost 31.2% of total population is living in the urban areas. In developing countries like India, and other South-Asian countries, the shift of population from rural to urban area is a very rapid phenomenon in present globalised society. The unscientific and haphazard process of urbanization generates various serious challenges to towns and cities and generation of different kinds of solid waste is one of those challenges. Municipal solid waste includes commercial and domestic wastes generated in municipal or notified areas in either solid or semi-solid form excluding industrial hazardous wastes but including treated bio-medical wastes. Exponential growth of population as well as urbanization and the development of socio-economic condition, coupled with the improvement of living standard, have resulted in an increase in the amount of MSW generation throughout the world, mostly in developing countries. On average the developed countries typically generate 521.95–759.2 Kg/Capita-year and 109.5–525.6 Kg/Capita-year typically by developing countries. Recent estimates suggest that the generation of MSW globally exceeds 2 billion tons per year, which is a potential threat to environmental degradation. Therefore, MSW management (MSWM) seems to be one of the key topics for environmental protection in present days and also in the future. In this paper also, a concise discussion on waste

generation and composition, collection and segregation of waste of Bolpur municipal town with proper facts and figures has been discussed.

### **1. Significance of the study**

The twenty-first century has been called the urban century where more than half of the world's population is living in towns and cities. Urbanisation is the physical growth of urban areas as a result of rural migration and even suburban concentration into cities. But such urbanisation sometime creates different problems in waste management, sanitation, sewage etc. as the town grows in an unplanned way. Bolpur is such a town which is growing in all aspects as it possesses an international importance due to Visva Bharati, Santiniketan. On the other hand, this town is well connected with railways and roadways. Educational, medical and other administrative facilities are also available here. So, it means there is ample reasons behind the growth of this town. But as an emergent town, Bolpur suffers from lots of waste generation with their poor management which deteriorates the urban quality. This study will help to identify the major issues related to solid waste generation, collection, disposal in the Bolpur municipal area and at the same time, the measures and strategies for effective waste management.

### **2. Objective of the study**

The present study is concerned with the following objectives -

1. To identify the different types and sources of solid waste.
2. To figure out the amount of solid waste generation, their collection pattern and disposal system.
3. To highlight the problems associated with prevailing solid waste management system.
4. To focus an overview on current waste management practices.
5. To give some recommendation and suggestion for the improvement of Solid Waste Management system.
6. To highlight the scope for future development.

### **3. About the study area**

Bolpur is now a well-known town with the international importance was merely a tiny village under Supur Porgana some 150 years ago. The name 'bolpur' comes from the word 'boli-pur'. In Bengali 'boli' means slaughter and 'pur' means town or city. The town is situated in Birbhum district, in the state of West Bengal, India and it is 145 km. north of Kolkata. Bolpur sub-division is located at south border of Birbhum district. The Bolpur sub-division consists of Bolpur- Sriniketan, Nanoor, Labpur and Ilambazar blocks.

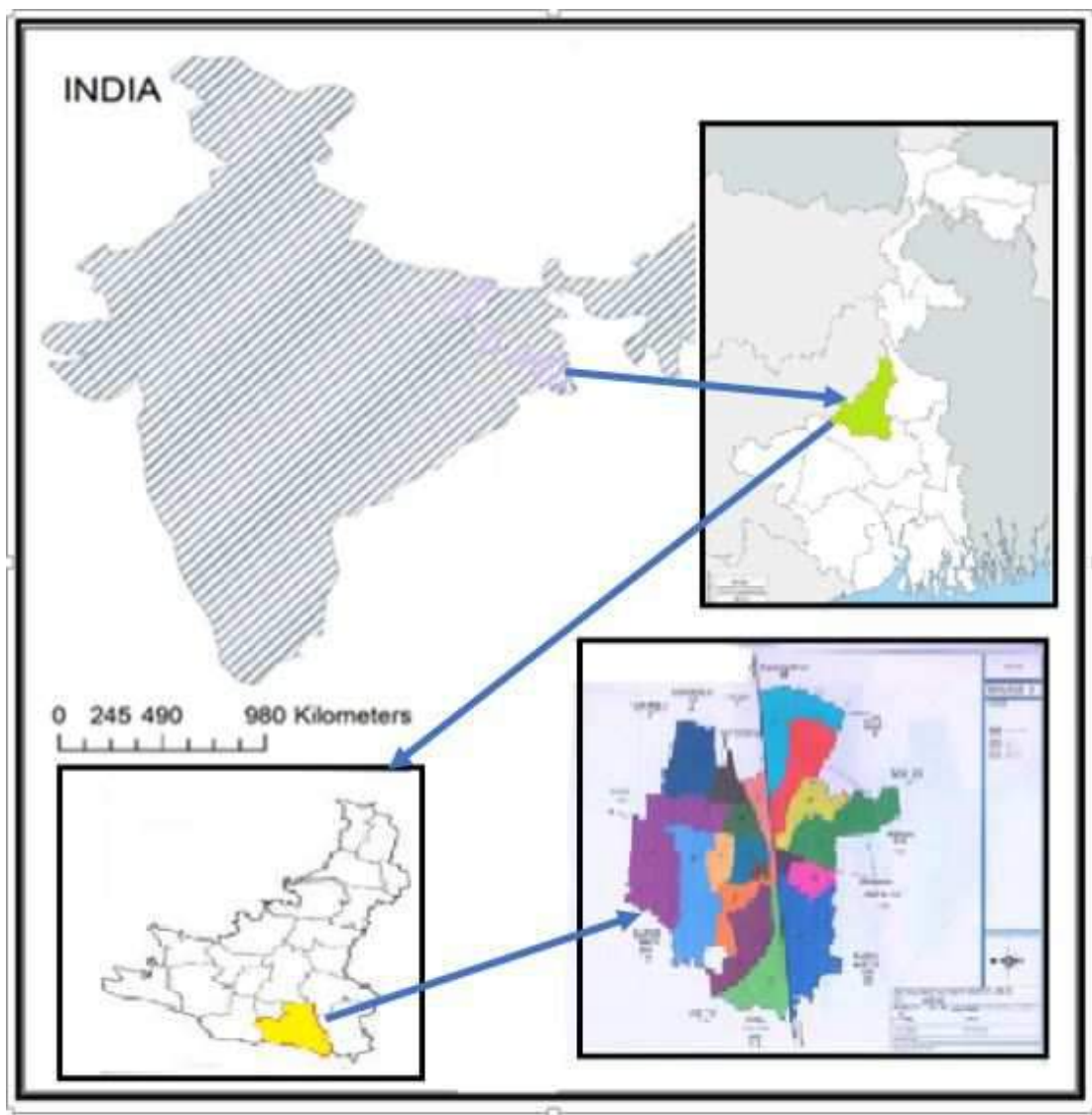


Figure 1: Location map of the study area  
**Table 1: Location of the Study Area**

Country	India
State	West Bengal
District	Birbhum
Sub-division	Bolpur
Police Station	Bolpur
Latitudinal extension	23°38'30"N. - 23°40'55"N.
Longitudinal extension	87°40'30"E. - 87°43'E.

The study area (Bolpur and its adjoining areas) is located in the interfluvies of Ajay and Kopai River. Physiographically this region is characterized by more or less plain surface with smaller undulating topography. The elevation of the area ranges between 46 metres to 62 metres. The Soil type is red sandy soil. But the northern part of this region is characterized by highly undulating (smaller scale) bad land topography locally known as 'Khowai'.

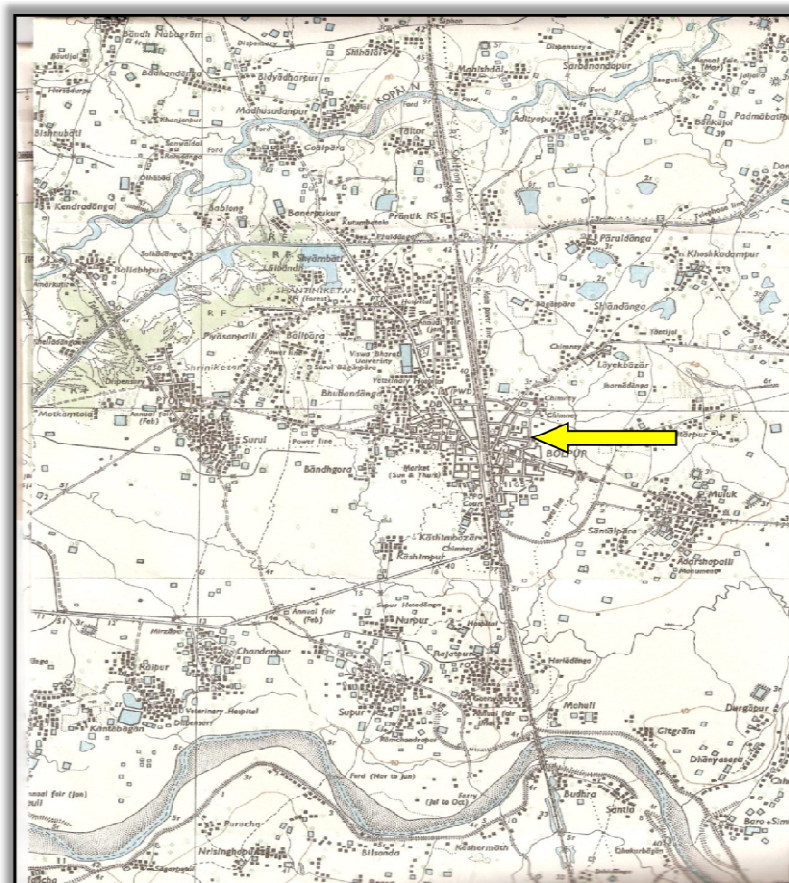


Fig 2: Topo-sheet extract (73M/10) showing the location of BolpurTown (R.F.- 1:50,000)

#### 4. Materials and Methods

This study is mainly based on secondary data and to some extent primary data. Primary data has been collected from the field through questionnaire survey and interviews and secondary data has been collected from Bolpur Municipality Office. Due to the unavailability of adequate secondary data, as researcher I have to rely mainly upon the primary data. With the help of primary data, the direct contact to the respondents become possible, whereas the secondary data provides various information like demographic information, physical infrastructure, services etc.

Table 2: Data base

Types of data	Sources of data	Data collected from	Remark
Data on waste generation, collection, segregation	Secondary Data	Bolpur Municipality Office	Quantitative justification and analysis
Census data	Secondary Data	Census of India	Demographic information
Topographical map	Secondary Data	Survey of India, NATMO	Locational information
Data on status of public responses	Primary Data	Field survey	Qualitative analysis



## 5. Results and Discussion

### 6.1 Waste Generation

The area of Bolpur Municipality is 13.13 sq. km. According to 2001 census, the total population of this town was 65,693. But in 2011 census, the total population of Bolpur has increased to 80,882. So around 15 thousand population has increased within ten years. As the population increases, the generation of solid waste also increases at a rapid stride. The solid waste generation in the Bolpur Municipality area is around 95 metric tonne per day. These solid waste materials include plastic bags, bottles, medical waste etc. But out of the entire solid waste, plastic bags cover a major portion with different sizes like small, medium, large plastic bag etc. It can be said that plastic bag is the major source waste generation. So, here emphasis is given more on the generation of plastic bags.

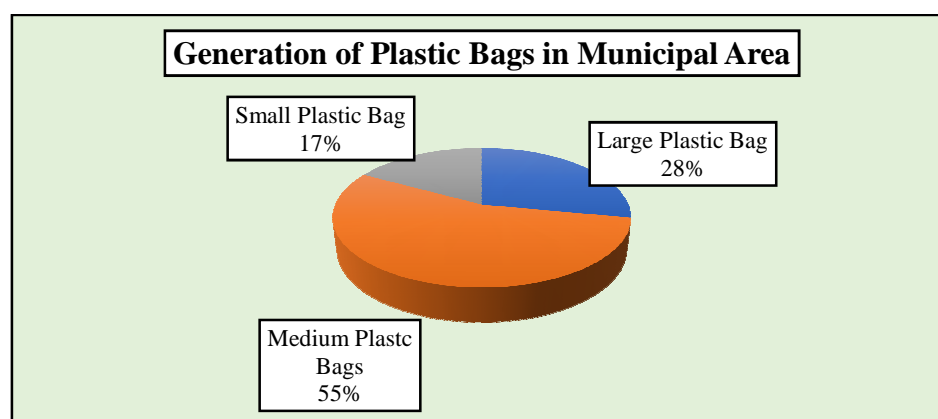


Figure 3: Generation of Plastic Bags (in %) in Municipal Area. (Source: Bolpur Municipality, 2011)

The above diagram indicates the generation of waste materials (mainly plastic bag) by the households of Bolpur town. Every household is the frequently user of plastic bags. It is very much common to all places. From grocery shop to shopping mall, now all peoples are very much dependent on it. But after using, it is thrown to the outside from their houses. As plastic is a non-biodegradable element, therefore it can never mix up with the soil. As a result, it is adversely affected to the open environment. As for example, drainage lines are choked up, increases infertility of soil, toxicity level of soil is raised up also etc. In case of Bolpur town, about 55 percent of households generates medium plastic bag, 28 percent generates large plastic bag and 17 percent households generates small plastic bag to the total municipal level.

Few sources of solid waste in Bolpur town:

- Waste from households (human and animal faeces, plastic packets, vegetable and fruit peels, silage etc.)
- Wastes from hotels and restaurants.
- Industrial or commercial waste.
- Bio-medical waste, originated from hospitals or health centres.



Figure 4: Heap of garbage along the road (Bolpur Municipality, 2011)

The following multiple bar graph shows ward wise various types waste generation of households of Bolpur town:

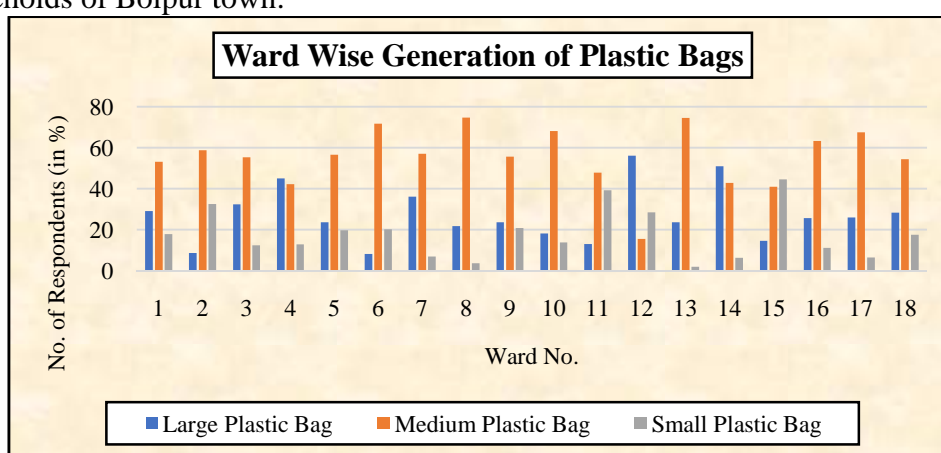


Figure 5: Ward wise generation of plastic bags. (Source: Bolpur Municipality, 2011)

The above diagram indicates percentage of households and their waste generation in different wards of Bolpur town. Plastic bags are taken into consideration as a waste material mainly, with various sizes. Here one thing should be mentioned that households from all wards generate medium plastic bags as waste materials than the large and small plastic bags. If we further analyse the municipal survey report to each and individual ward, then it will provide a better scenario for waste generation of the households. The percentages of households, who generates waste mainly medium plastic bag, are more in case of ward no. 6, 8, 10, 13 & 17. But the percentages of households are less in ward no. 12. Large plastic bag generates more in ward no. 4, 12, & 14, but it is low in case of ward no. 2, 6, 8, 9, 10, 11 & 15. The percentages of households in regard to small plastic bag are more in ward no. 2, 11, 12 & 15 and it is less in ward no. 3, 4, 7, 8, 13, 14, 16 & 17. But if we can generalize the all results then it is cleared that, in ward no. 6, 8, 10, 13, 16 & 17 where the percentage of households generates waste in a large volume. Other municipal wards also generate various types of waste materials daily in a regular manner.

### 6.2 Collection of Waste

Man power and vehicles are mainly used for collection of solid waste. Generally, wastes those are generated by the households and other institutions, deposited either in the municipal dustbin or any particular place. Sometimes heap of wastes are found

to be deposited along the road. Now a days such practices become very much common to all urban centres.



Figure 6: Garbage collection and disposal vehicles.

In Bolpur town, clearance of garbage is done by Bolpur Municipality. The amount of solid waste collection is around 40 metric tonne per day. Every morning municipal sweepers are engaged for collection of waste as their routine work. For proper collection of garbage, municipality incorporated some vehicles (mainly tri-cycle van and tractor). These garbage clearing vehicles or tractors are assisted the sweepers. They collected garbage from different places and put them into the vehicles. This system is being conducted in all the municipal wards. The process is very much dynamic. The major advantage of this process is clearance of large amount of garbage for a larger area is possible within a short time. After collecting the garbage, usually dumped outside the town. As the waste management is concerned, these wastes need a treatment to make it eco-friendly. But the municipality has no such kind of treatment plant. Therefore, requirement of a treatment plant is necessary.

The following pie diagram shows the status of waste collection of Bolpur town:



Fig 7: Waste Collection Status in Total Municipal Area. (Source: Bolpur Municipality, 2011)

The above diagram indicates nature of waste collection in the total municipal area of Bolpur town. Here we can divide the nature of waste collection in the following three ways:

**Regular:** Clearing of garbage takes place every day by the municipality.

**Irregular:** In this case, the municipal sweepers used to clear the garbage not a regular manner but very much occasionally.

**Uncollected:** Clearing of garbage is never done by the municipality in some places.

According to socio-economic survey, around 40 percent people said that garbage is regularly cleared by the municipality. Around 30 percent people think, it is cleared very irregularly and rest 30 percent people said that waste is never collected. Such kind of practices are not expected from municipal authority. Any types of uncollected garbage cause diseases, emits odour, clogs the drain and above all deteriorates the urban quality and life style. Garbage free town always enrich the environmental quality.

### 6.3 Status of Waste Collection

If we give emphasize on more detailed study of the municipal survey report, then it will clearly showing the nature of waste collection and its percentage over all the municipal wards each and individually of Bolpur town.

The following multiple bar graph shows the mode of waste collection in percentage in individual wards:

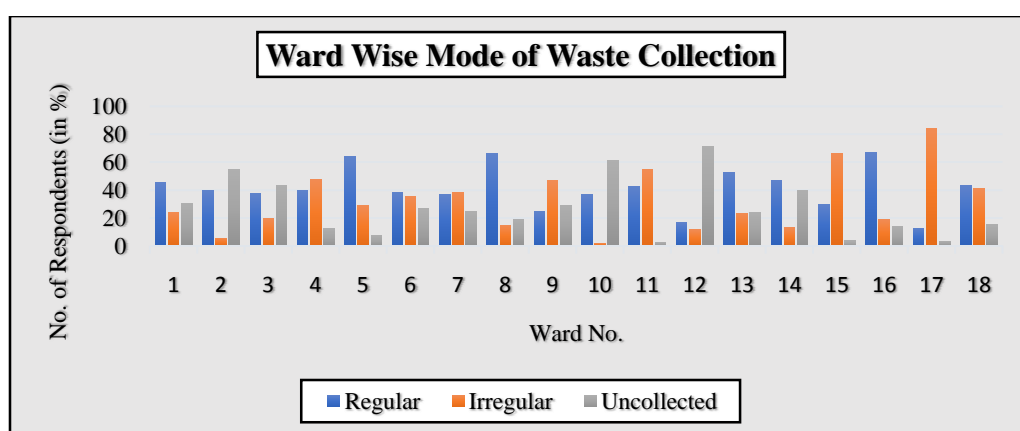


Figure 8: Ward wise mode of waste collection (Source: Bolpur Municipality, 2011)

The above diagram indicates nature or mode of waste collection in different municipal wards of Bolpur town. Here the mode of collection means either garbage is cleared regularly or irregularly or remains uncollected. In ward no. 5, 8 and 16 more than 60 percent people said, garbage is cleared regularly. But in case of ward no. 15 and 17 more than 60 percent people thinks that it is not cleared regularly that means it is very much irregular. In ward no. 17, where 85 percent people said that waste collection is totally irregular. But in ward no. 2, 10 and 12 more than 50 percent people said, garbage remains uncollected. If only ward no. 12 is taking into consideration, then it is found that the uncollected garbage is in a maximum level and the respondents were more than 70 percent against regular collection (based on socio-economic survey). So municipality should give more emphasis to those areas where garbage is uncollected as well as irregularly cleared.



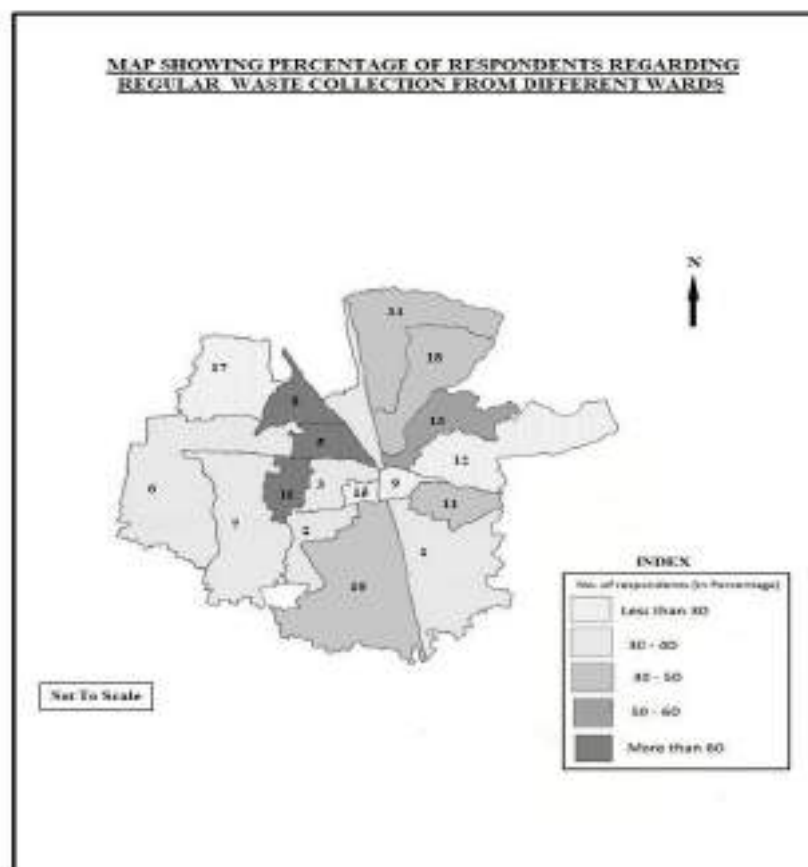


Figure 9: Choropleth map showing percentage of respondents regarding waste collection

A choropleth map is drawn on percentage of respondents regarding regular waste collection in different wards. It is shown in the map that ward no. 8,5,16 has the maximum respondents regarding regular waste collection. In the ward no. 10, 14, 18 has moderate response and in ward no. 15, 3, 17 has a meagre response regarding regular waste collection. It should be remembered that the heaps of garbage are much unhygienic and unhealthy for human health. Sometimes it is also seen that the domestic wastes are overflowing the bins and spread over the roads. Therefore, the municipality authority should very regular about the collection of wastes from dustbin and store them at a definite place like outside the town area at a far distance.

#### 5.4 Time of Waste Collection

5.5 Under the following we can get an idea about time wise waste collection in the municipal area. In general, the municipal sweepers use to clear the garbage during morning. But in some municipal areas like Gurupally, Professor Colonyetc. (ward no. 6, 7, 8) which are considered as high-class residential wards, the clearance is conducted during afternoon and evening also. Rest of the areas are facilitated ones a day basically at morning. Sometimes few zones like bus stand area, bazar areas are ignored in case of waste collection.

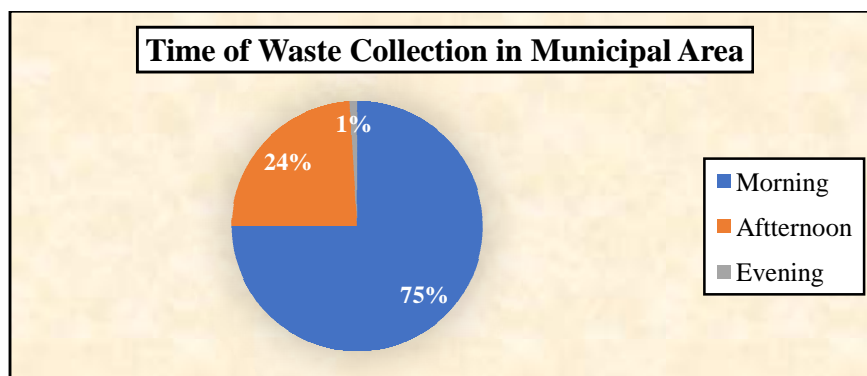


Figure 10: Time of waste collection in municipal area (Source: Bolpur Municipality, 2011)

Above diagram indicates waste collection in different time period. Generally, it is seen that most of the respondents i.e. more than 75 percent people said that garbage is cleared during morning. Where around 24 percent people responded that it is cleared in afternoon and a very little amount of garbage that is less than 1 percent people think waste is cleared in evening. Sanitation department of municipality should take an effective role to collect the garbage at the morning. Such kind of practice will help to keep the town clean, healthy and hygienic.

The following multiple bar graph shows time wise of waste collection in different wards of Bolpur town:

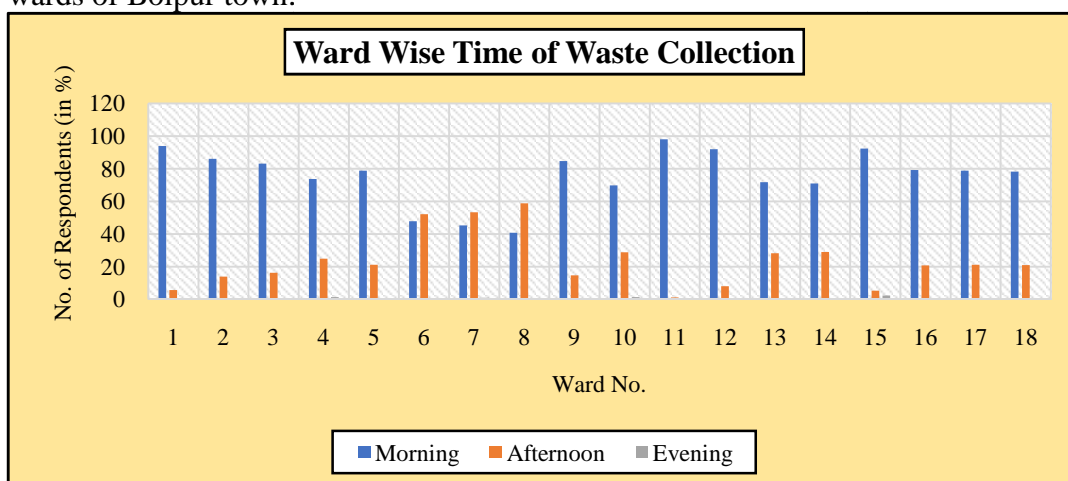


Figure 11: Ward wise time of waste collection

One thing is very much prominent from above diagram that is most of the waste is cleared in the morning from all the wards. At an average 75 percent people think garbage is collected during morning. In case of ward no. 11 where the success is highest and 98 percent people responds in favour of morning waste collection. But in ward no. 6, 7 & 8, where more than 50 percent people think garbage is cleared during afternoon. Only a very little percent of people think garbage is collected in evening (based on socio-economic survey). So municipal authority will give priority to those areas where garbage is not cleared during morning. They should assure to the citizens that 100 percent collection of waste in morning from all the municipal wards.

### 6.5 Doorstep Waste Collection

Doorstep collection means house to house collection of waste. It is an important parameter for waste management. To make the city clean and garbage free doorstep collection of waste from each household is necessary.

The following pie diagram shows doorstep waste collection in municipal level:

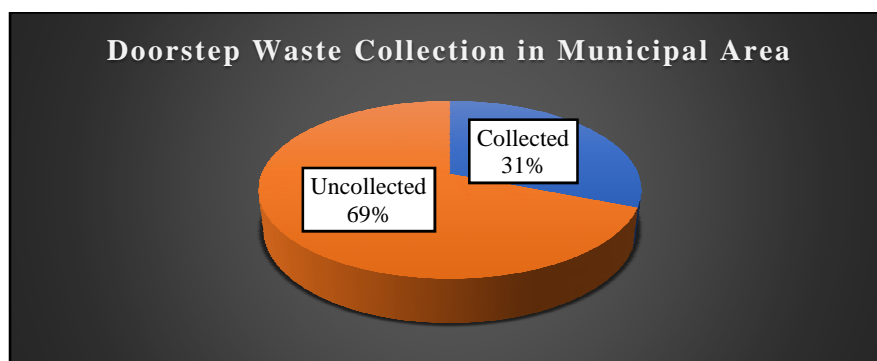


Figure 12: Doorstep waste collection in municipal area (Source: Bolpur Municipality, 2011)

The following multiple bar graph shows doorstep waste collection in different wards of Bolpur Municipality:

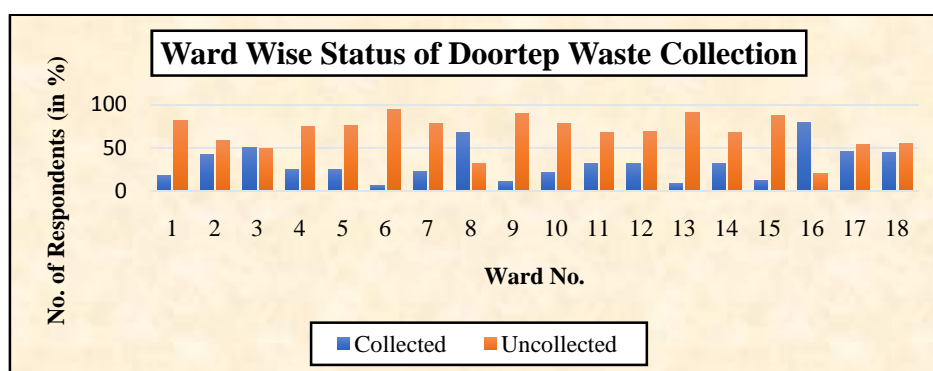


Figure 13: Ward wise status of doorstep waste collection

From above diagram it is cleared that doorstep waste collection is conducted in a low rate. It is not organized in an efficient manner. So, the rate of collection is least. In case of ward no. 1, 6, 9, 13 and 15 where less than 20 percent people think garbage is collected from door to door. In ward no. 6, response is disappointing where only 5.51 percent people gave positive response. Only in ward no. 16 where about 80 percent people think waste is collected from the households (based on socio-economic survey). Therefore, it is necessary to increase the level of efficiency of doorstep waste collection of the municipal sweepers. In this regard, it is worth to be mentioned that municipal authority had decided to provide a container to each household to store the domestic waste and then hand it over to municipal garbage collector. But this scheme has not got that much of success because of lack of people’s participation.

### 6.6 Segregation of Municipal Waste at Source

Segregation of waste is the key principle of waste management and to reduce the quantity of waste at the source. Only 19 percent of total generation get segregate at source.

The following pie diagram shows the percentage of segregation of municipal waste at source in Bolpur town:

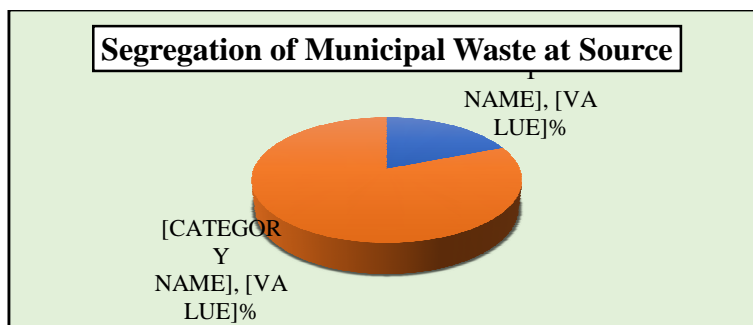


Figure 14: Segregation of municipal waste at source (Source: Bolpur Municipality, 2011)

The following table shows the quantity of segregation of waste at source by Bolpur Municipality:

Table 3: Gap between Waste Generation, Collection and Segregation

<b>Waste Generation of Households</b>	<b>95 metric tonne/day</b>
Waste Collection by Municipality	40 metric tonne/day
Waste Segregation at source	18.05 metric tonne/day (19% of total generation)

Source: Socio-Economic Survey and Analysis Report, BolpurMunicipality (2011)

In Bolpur Municipality 95 metric tonne waste generates every day. Where 40 metric tonne waste is collected daily that is around 42 percent of total generation. But only 19 percent waste is segregated at source regularly and the figure is about 18.05 metric tonne. So, it can be said that segregation of waste at source is very low in Bolpur town. But to reduce the quantity of waste at source it is essential to increase the level of segregation.

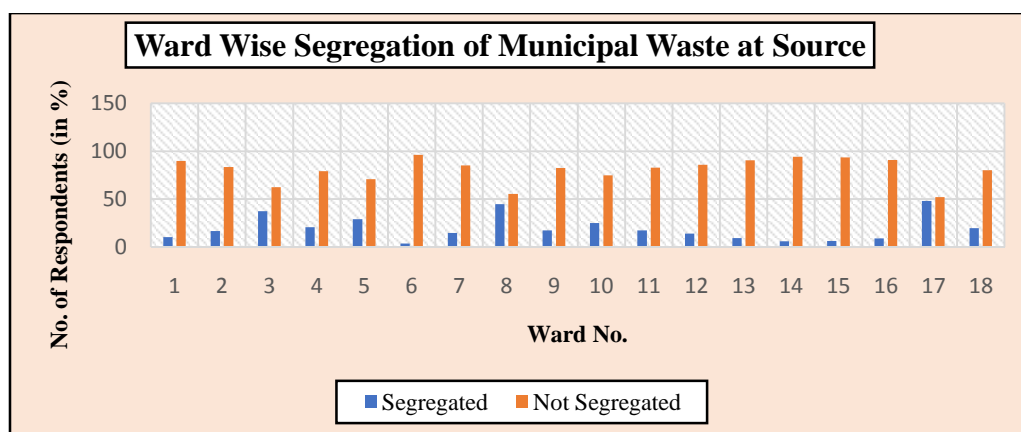


Figure 15: Ward wise segregation of municipal waste at source (Source: Bolpur Municipality, 2011)

From the above table, one thing is clear that the capacity of segregation of waste at source is very low. A very little portion of waste is segregated at source throughout the all municipal wards. Only in case of ward no. 8 & 17 the result is exceptional where more than 40 percent people think that waste is segregated at source. But in case of ward no. 6, 13, 14, 15 & 16 the respondent is below 10 percent. In these wards above 90 percent people said that waste is not segregated at source. So municipal



authority should give more importance regarding the capacity of waste segregation at source in different municipal wards.

### 6.7 Level of Satisfaction of Local People Regarding Waste Management

Questions were also put forward to the local residents of Bolpur town to know about their levels of satisfaction with the municipal services on waste collection.

Table 4: Satisfaction Index (Yen, Hall & Tan, 1975)

Level of Satisfaction	No. of satisfied respondents ( <i>fs</i> )	No. of dissatisfied respondents ( <i>fd</i> )	Do not know	Total no. of respondents ( <i>N</i> )	Satisfaction Index ( <i>Is</i> ) $= (fs - fd) / N$
Waste collection	342	190	8	540	0.28
Municipal service	216	319	5	540	-0.19
Dustbin clearance	324	206	10	540	0.22

Sample Size: 540

The following bar diagram shows the index of satisfaction with some of available facilities:

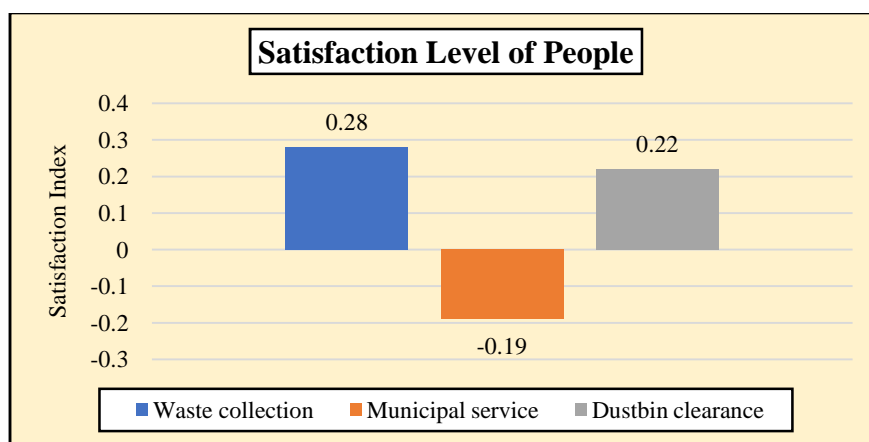


Figure 16: Level of Satisfaction (Source: Bolpur Municipality, 2011)

To evaluate the satisfaction level of the peoples, the index of satisfaction with some of available facilities has been calculated. This shows the strong and weak sides regarding some important and mandatory facilities. The value of this remains within +1 and -1.

As researcher I have selected some of the important facilities like, waste collection, municipal services and dustbin clearance. All of these activities are performed by Bolpur Municipality. In case of waste collection and dustbin clearance, the satisfaction index is 0.28 & 0.22 respectively. So, these two facilities are low to moderate which is provided by the municipality. Overall the local resident gives a positive response against these facilities. But if we consider the municipal services in terms of conservancy services, then the value of satisfaction index is -0.19 as for

majority of people shows a negative response. It is really a matter of concern. If we take the percentages then it is 59% people who are dissatisfied with municipal conservancy services. According to them, municipal services are not at a satisfactory level.

## **6. Major findings and problems associated with the Solid waste Management in Bolpur**

- 1) The municipality garbage cleaning van does not come door to door for collecting the domestic wastes and the municipal workers like sweeper, garbage collector etc. are very much irregular in performing their duties.
- 2) The municipal workers those who are engaged with the waste management are not well trained. Most of the time, they have to rely on man power like tricycle van etc. There are lack of modern equipment and machineries regarding waste management.
- 3) The number of bins are not adequate for that much size of population. As a result, people used to through the garbage on the road, sometimes even into the drains.
- 4) Placement of bins is a serious issue in this town. People usually used to deny to install or place a bin around his house as it spreads odour. Sometimes allotment of bins driven by any political leader creates disparity.
- 5) As the urbanisation is marching in every nook of the town, therefore there is serious lack of sufficient area for open dump or landfill.
- 6) The number of people engaged with the waste collection and management and the allotted duty hours is not sufficient enough.
- 7) There is no scope for the segregation of waste at source as well as at dumping site. This is because of advanced equipment and trained workers.
- 8) Above all, the waste management system in Bolpur municipal town is not that much of updated regarding the modern and advanced society.

## **7. Suggestions and Recommendations**

- 1) Urban local body should conduct awareness programmes and campaign among the peoples particularly in slum areas so that their perception towards waste management may change.
- 2) Training programme can be arranged for the municipal workers who are engaged with waste management so that they perform efficiently. Number of municipal workers regarding waste collection and management should also be made sufficient.
- 3) Mechanisation should be introduced in waste management. Advanced technology and machineries should be installed instead of tricycle van or other outdated vehicles.
- 4) Involvement of local community is another means to get rid off from poor practice of waste disposal. A collective participation with a common interest can make a better management.
- 5) Municipal authority should provide adequate bins, chemicals to the residents for keeping the environment clean and safe.
- 6) If sanitary landfill instead of open dumping, facility of segregation of waste, recycle of plastic and metallic waste etc. can be implemented properly, then Bolpur municipality will be a waste free healthy town.

## **8. Conclusion**

We can stop neither urbanisation nor commercialisation as both the processes are the major driving force of an urban area. Therefore, waste generation is very much

natural as it is the inherent result of any human activity. Our ultimate aim should be like to minimise the ill effect of solid waste on human as well as on environment. Thus, waste management is required. From the above study, it is found that local Govt. i.e. Bolpur Municipal Authority is very much careless regarding waste management. On the other hand, population is also increasing day by day. To reach the goal of cent percent waste collection, their transportation and disposal, treatment municipal authority would first need to prepare a proper plan which will identify the quantity of waste generated in the whole area. Authority should demarcate few areas outside the town for dumping or landfill and invest more on waste management purpose. From the study, we have found that plastic is the major solid waste in Bolpur. If it can be recycled or used as resource, then a large percentage of waste can be managed. But above all, people's participation is most necessary. We should through the waste at the right place instead of on the road or into the drains. We can also utilise the ease of social media to make the people aware regarding impact of solid waste. So, from the above discussion, it can be conclude that though waste management is very poor here in true sense but a positive vibes with collective participation may change the situation.

## 9. Acknowledgement

The author would like to thank the officers and staffs of sanitation department and others department of Bolpur Municipality to provide me the necessary and required data to undertake this research. The author would also like to thank the teachers of Department of Geography, VisvaBharati University to help me to execute the research from their best sides.

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## UGC Journal Details

<b>Name of the Journal :</b>	The Online International Interdisciplinary Research Journal (OIIRJ)
<b>ISSN Number :</b>	22409599
<b>e-ISSN Number :</b>	22409599
<b>Source:</b>	UNIV
<b>Subject:</b>	English
<b>Publisher:</b>	Editor-In-Chief Somnath Kisan Khatal President, Interdisciplinary Research Institute Kolhapur, Maharashtra, India
<b>Country of Publication:</b>	India
<b>Broad Subject Category:</b>	Arts & Humanities

[Print](#)

GOVT. OF INDIA RNI NO.: UPBIL/2015/62096

UGC Approved Care Listed Journal

ISSN  
2229-3620

NIS



# SHODH SANCHAR

## Bulletin

An International  
Multidisciplinary  
Quarterly Bilingual  
Peer Reviewed  
Refereed  
Research Journal

**Vol. 11**

**Issue 41**

**January to March 2021**

Editor in Chief

**Dr. Vinay Kumar Sharma**

D. Litt. - Gold Medalist



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Educational & Research Foundation

UGC APPROVED  
CARE LISTED JOURNAL  
GOVT. OF INDIA RNI NO. - UPBIL/2015/62096

ISSN No. 2229-3620



# SHODH SANCHAR

## Bulletin

AN INTERNATIONAL MULTIDISCIPLINARY QUARTERLY BILINGUAL  
PEER REVIEWED REFEREED RESEARCH JOURNAL

• Vol. 11

• Issue 41

• January - March 2021

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28.	PERISTROIKA AND GLASNOST	Dr. Sajeev Singh. M. K.	136
29.	EFFECT OF ITEM RESPONSE FORMAT AND TEXT TYPE ON READING TEST PERFORMANCE	Eman A. A. Al-Sharafi Dr. D. R. Sarvamangala	140
30.	A REVIEW ON GREEN CONSUMPTION BEHAVIOUR AND ITS COMPONENTS	Kavita Kamboj Prof. Nawal Kishor	146
31.	LIVING ARRANGEMENT PATTERN OF ELDERLY IN A MUNICIPAL TOWN OF NADIA DISTRICT, WEST BENGAL	Dr. Bigitendriya Debsharma	155
32.	A STUDY OF FAT-RELATED DIET HABITS AMONG FEMALE ADULT OF MONSANG TRIBE, CHANDEL DISTRICT, MANIPUR	Konthang Ngoruh Monsang Dr. Kh Rajen Singh	160
33.	A GEOGRAPHIC APPRAISAL ON URBAN SEWERAGE SYSTEMS FOR SUSTAINABLE MANAGEMENT OF WASTE WATER AND STORM WATER IN BOLPUR TOWN, WEST BENGAL	Aparesh Mondal	165
34.	DOES GENDER DIFFERENCE MODERATE THE IMPACT OF TRAINING ON PRODUCTIVITY OF EMPLOYEES? A META- ANALYSIS STUDY.	Dr. Mani Parti	170
35.	A STUDY OF SPIRITUAL INTELLIGENCE AMONG SECONDARY STUDENTS	Prof. Anand Kumar Preeti Rawat Negi	176
36.	DEATH SENTENCE AND CRIMINAL JUSTICE IN HUMAN RIGHTS PERSPECTIVE	Rajesh Kumar Tripathi	181
37.	KEATS AND THE IMPACT OF PANDEMIC ON HIS LIFE	Soumendu Kumar Dutta	186
38.	AN EXPRESSION TO REPRESSION : UN-SHADOWING FEMALE SEXUALITY IN GIRISH KARNAD'S SELECT PLAYS	Dr. Neelam Bhardwaj	191
39.	STUDY ON ICT USAGE IN SKILL DEVELOPMENT IN THE HIGHER EDUCATION INSTITUTIONS : A REVIEW OF LITERATURE	Dr. Nitin Kalla	196
40.	EXPLORING THE POSSIBILITIES OF SHRIMAD BHAGAVAD GITA FOR ACTIVE CITIZENSHIP EDUCATION : A QUALITATIVE ANALYSIS	Dr. P. K. Hemalettha	200



**A GEOGRAPHIC APPRAISAL ON URBAN SEWERAGE SYSTEMS FOR SUSTAINABLE  
MANAGEMENT OF WASTE WATER AND  
STORM WATER IN BOLPUR TOWN, WEST BENGAL**  **Aparesh Mondal\***

## ABSTRACT

Urban sewage and sanitation system in India faces many challenges. More than 55 million people in urban areas lack access to improved sanitation arrangements and almost two-thirds of wastewater is let out untreated into the environment which pollutes the land as well as water bodies. Now in India, urbanisation is marching at a rapid strides and Bolpur is not excluded from its impact. Growing urbanisation promotes the generation of wastewater which includes all types of domestic and commercial effluent as well as storm-water runoff during rainy season. This is because, urbanisation in most of the towns like Bolpur are not well associated with rapid improvement of urban amenities and their governance. Therefore to improve the quality of urban environment of Bolpur and for its sustainability, proper and scientific management of sewage is utmost necessary. In this paper, basically the drainage types, drainage quality, facility provided by the Bolpur municipality etc. are discussed. The paper further highlighted the problems associated with water logging and suggests an integrated and multi-disciplinary approach for sustainable drainage design.

**Keywords :** Urban drainage, Sewage, Urbanisation, Stormwater management.

### 1. Introduction

Rapid urban growth in developing countries has resulted in the unplanned proliferation of both formal and informal settlements. But the sanitation plan with adequate sewerage system cannot meet with the pace of urban growth.

In developing countries like India and other South-Asian countries, the shift of population from rural to urban area is a very alarming phenomenon and therefore population is increasing rapidly in the urban areas. As per 2011 census, almost 31.2% of total population are living in the urban areas.

The unscientific and haphazard process of urbanization generates various serious challenges to towns and cities and promotes generation of waste water and its poor management is one of those challenges. Municipal wastewater refers the 'unwanted' water of a city, includes all types of domestic, commercial and

industrial effluent as well as stormwater runoff during times of rainfall. Exponential growth of population, coupled with the improvement of living standard, have resulted the increase in the amount of waste water generation throughout the world, mostly in developing countries.

In this paper, a concise discussion on waste water generation, types of drainage, drainage quality, municipal facility regarding stormwater management in Bolpur town with proper facts and figures has been discussed.

### 2. Significance of the study

The twenty-first century has been called the urban century where more than half of the world's population is living in towns and cities. Urbanisation is the physical growth of urban areas and a result of rural migration and even suburban concentration into cities. But such urbanisation sometime creates different problems in waste-water management, sanitation, sewage etc. as the

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serfoundation123@gmail.com | serresearchfoundation.in

# Certificate of Publication

Ref. No.: **SSB/2021/NIS31**

Date: **27-03-2021**

*Authored by*

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Assistant Professor

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Swarnamoyee Jogendranath Mahavidyalaya, Purba Medinipur, West Bengal

*for the Research Paper titled as*

**A GEOGRAPHIC APPRAISAL ON URBAN SEWERAGE SYSTEMS  
FOR SUSTAINABLE MANAGEMENT OF WASTE WATER  
AND STORM WATER IN BOLPUR TOWN, WEST BENGAL**

*Published in*

**Shodh Sanchar Bulletin, Volume 11, Issue 41, January to March 2021**

**Dr. Vinay Kumar Sharma**

*Editor in Chief*

M.A., Ph. D., D.Litt. - Gold Medalist

Awarded by The President of India 'Rajbhasha Gaurav Samman'



GOVT. OF INDIA- RNI NO. UPBIL/2014/56766  
UGC Approved Care Listed Journal

ISSN 2348-2397

HIS

# Shodh Sarita

An International Multidisciplinary Quarterly  
Bilingual Peer Reviewed Refereed Research Journal

• Vol. 8

• Issue 29

• January to March 2021



Editor in Chief

**Dr. Vinay Kumar Sharma**  
D. Litt. - Gold Medalist



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# Shodh Sarita

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• Vol. 8

• Issue 29

• January - March 2021

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42.	CHALLENGES AND CONCERNS OF THE 2-YEAR B.ED. PROGRAMME IN NAGALAND	T. Alemla Longkumer Dr. Anjali Karmakar	206
43.	EFFECT OF SUSTAINABILITY DRIVEN PRACTICES ON BRAND POSITIONING IN AUTOMOBILE INDUSTRY- A CASE STUDY IN LUCKNOW REGION FROM CUSTOMER'S PERSPECTIVE	Ankita Srivastava Dr. Himanshu Mohan	212
44.	CULTURAL SYMBOLISM, SPACE AND IDENTITY IN MEENA ALEXANDER'S MEMOIR <i>FAULT LINES</i> AND POETRY COLLECTION <i>RAW SILK</i>	Dr. Sandhya Tiwari	218
45.	BEHAVIOUR INTENT AND PERCEIVED BEHAVIOURAL CONTROL AS PREDICTOR OF ADHERENCE BEHAVIOUR	Sarita Gupta Dr. Mridula Sharma	223
46.	ROLE OF SCO IN FIGHTING THE THREE EVILS OF CENTRAL ASIAN REGION	Shweta	229
47.	A GEOGRAPHICAL STUDY ON SYMBIOTIC RELATIONSHIP BETWEEN FOREST RESOURCES AND LIVELIHOOD PRACTICES OF SANTAL AND LODHA-SABAR TRIBES OF PASCHIM MEDINIPUR DISTRICT, WEST BENGAL	Aparesh Mondal Prof. Uma Sankar Malik	234
48.	A SYSTEMATIC STUDY OF RESERVATION PROVISIONS IN INDIAN CONSTITUTION	Sarita Singh Dr. Tarak Nath Prasad	241
49.	AN ANALYTICAL STUDY OF CUSTOMER SATISFACTION IN ONLINE PURCHASING SYSTEM	Dr. Binod Pratap Singh Sunil Singh	247
50.	COMPARATIVE STUDY OF THE LACES KICK IN SOCCER BETWEEN BEGINNERS AND ADVANCE PLAYERS ON SELECTED BIOMECHANICAL VARIABLES	Dr. Ashish Kumar Singh	252
51.	EXPLOSIVE STRENGTH OF FEMALE VOLLEYBALL PLAYERS AT DIFFERENT LEVELS OF ACHIEVEMENTS	Dr. Rahul Singh	258
52.	CULTURE AND LIFESTYLE OF VALMIKIS : AN ETHNOGRAPHIC OBSERVATION ON HOW CASTE DETERMINES AND INFLUENCES THEIR DAY-TO-DAY LIFE.	Dr. Vishwa Nath Mishra Zarin Mahmood	262



A GEOGRAPHICAL STUDY ON SYMBIOTIC RELATIONSHIP BETWEEN FOREST RESOURCES AND  
LIVELIHOOD PRACTICES OF SANTAL AND LODHA-SABAR  
TRIBES OF PASCHIM MEDINIPUR DISTRICT, WEST BENGAL

□ Apareesh Mondal\*

Prof. Uma Sankar Malik\*\*

## ABSTRACT

Forest is the pristine motherland of tribes, forest has nurtured them, give them food, shelter and the livelihood opportunities. A large number of tribal communities in India had been deriving their livelihood directly from the environment. By the very nature of their habitat and ecology, the tribes rely heavily on forests for their survival. They used and optimised the utilisation of the forest resources in a balanced productive ecosystem. Most of the tribal communities of West Bengal highly depended on forest for their livelihood since the medieval period. The tribal villages of Paschim Medinipur district are not exception in this regard. An immense impact of forest on their society, culture, economy and polity is seen at large scale. In this research work, the inter-relationship as well as inter-dependency between tribal community and the environment will be analysed properly. This study will find how the forest ecosystem controls the tribal economy, how their occupation and livelihood pattern determined by the forest environment etc. in an objective and qualitative manner.

**Keywords :** Tribes, forest, livelihood, inter-dependency

### 1. Introduction

In India it has been observed that wherever there is a large concentration of forest, there is also high concentration of tribes in particular, and the rural population in general. Rural tribes are dependent on forest resources for their livelihoods. For many of them, not only do the resources provide economic sustenance, but the forest is also a way of life socially and culturally. It meets basic needs like fuel wood, fodder and timber that are important for them and their livestock. Their economic activities such as food-gathering, pastoral life, cultivation, handicrafts and other activities are largely based on the forests.

The western province of Bengal, comprising the parts of Bankura, Purulia and Paschim Medinipur have one of the largest concentration of tribes. In the lap of dense forest, thousands of tribes from Santal, Munda, Bhumij, Lodha-Sabar etc. community used to reside

there. A unique life-style, a typical livelihood pattern and a distinct socio-cultural system depending on forest ecology have been developed in the tribal villages of Paschim Medinipur district. A symbiotic relationship between forest ecosystem and various determinants of economic practices have been found there. The present study will try to understand the interrelationship between forest and tribal economy, how the forest determine their livelihood pattern, what are the forest produces available to them and challenges faced by tribes.

### 2. Significance of the Study

The researcher tries to find out the symbiotic relationship between the mother nature and tribes. From the time immemorial, it has been considered that the forest is the mother of tribes as they are directly as well as indirectly dependent upon forest for survival. Their society, culture, livelihood everything else determined by forest ecosystem.

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# Certificate of Publication

Ref. No.: **SS/2021/HIS49**

Date: **29-03-2021**

*Authored by*

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*for the Research Paper titled as*

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RESOURCES AND LIVELIHOOD PRACTICES OF SANTAL AND LODHA-SABAR  
TRIBES OF PASCHIM MEDINIPUR DISTRICT, WEST BENGAL**

*Published in*

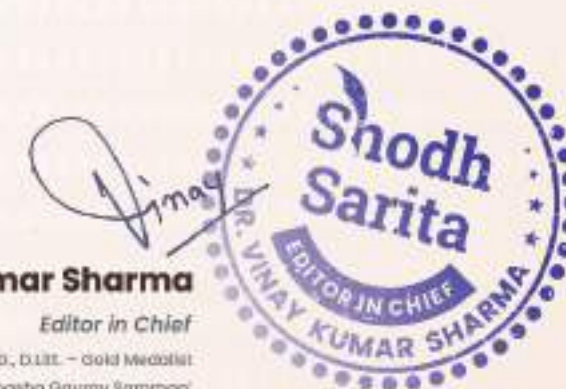
**Shodh Sarita, Volume 8, Issue 29, January to March 2021**

**Dr. Vinay Kumar Sharma**

*Editor in Chief*

M.A., Ph. D., D.Litt. - Gold Medalist

Awarded by The President of India 'Rajjyotsna Gaurav Samman'





## About the Journal

*Sanglap* (ISSN: 2349-8064) is open-access and published twice a year (May-June and November-December). Each issue carries a specific theme. We look forward to articles that cater to these themes in an interdisciplinary manner.

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Vol. 7 No. 2 (2021): Cultures of Sexuality / Articles

## **Bodies in Transition:**

Exploring Queer Sexualities in Indian Cinema

**Hiya Chatterjee**

**Keywords:** Sexuality, transgender, Indian cinema, South Asian studies, gender studies

### **Abstract**

The paper closely studies the representations of queer bodies and sexualities in four Indian films of the last decade: *Arekti Premer Golpo*, *Chitrangada: The Crowning Wish*, *Nagarkirtan* and *Super Deluxe*. Through the comparative study, the paper will try to explore if, and how, the representations of non-normative sexualities have changed in alternative and in regional cinema, despite the lack/misrepresentation of these individuals in mainstream Hindi cinema. In the process, the questions of the performativity of gender, self and identity, desire and resistance of the queer subject and queer bodies will be addressed against the



# IJETRM

International Journal of Engineering Technology Research & Management

Impact Factor: 4.520

ISSN: 2456-9348

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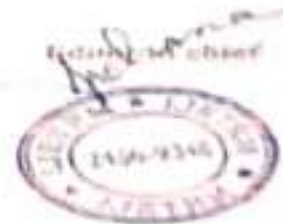
**Paper Code:** ijetrn0502-13

**Publication Date:** February 10, 2021

**Published In:** Volume-05 Issues 02, February-2021

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# IJETRM

## International Journal of Engineering Technology Research & Management

Impact Factor: 5.004  
ISSN: 2456-9348

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SOCIO-ECONOMIC, MENTAL AND MORAL PERSPECTIVES AFTER THE IMPACT OF  
COVID-19 AND IT'S WAYS TO RECOVER AT PRESENT

### Author(s)

Nanigopal Das<sup>1</sup>  
Monoj Maiti<sup>2</sup>

### Published In

Volume (05) Issue (02) February 2021

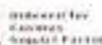
### Date Issued

February 10, 2021

### URL

<http://www.ijetrm.com/issues/files/Feb-2021-09-1612871411-f8.pdf>

*M. J. Jana*  
Editor in chief





**SOCIO-ECONOMIC, MENTAL AND MORAL PERSPECTIVES AFTER THE  
IMPACT OF COVID-19 AND IT'S WAYS TO RECOVER AT PRESENT**Nanigopal Das<sup>1</sup>Monoj Maiti<sup>2</sup><sup>1</sup>State Aided College Teacher, Department of Philosophy, Swarnamoyee Jogendranath Mahavidyalaya, Nandigram Purba Medinipur, West Bengal,<sup>2</sup>State Aided College Teacher, Department of Physiology, Bajkul Milani Mahavidyalaya, Kismat Bajkul, Purba Medinipur, West Bengal**ABSTRACT**

We find various destructive phenomena in this diversified world at anytime and anywhere. When we go through the history we find a disease that took the form a pandemic and leads the world towards destruction, e.g., Bubonic plague in 1720, cholera in 1820, again Spanish flu in 1920 and novel Corona virus at present, 2020. There's going on the dominance of death and its great procession due to COVID - 19 around the world. Then started curfew, postponement on each type of vehicle and means of transportation, e.g., railway, aero plane, route bus etc. And even followed lock down on each aspects of interaction as school, college, shopping mall, office, court, and local markets etc. Instead of these, there followed quarantine, testing at airport, and sanitizing measurements at everywhere. Then there followed the declaration of home quarantine, social distancing, and the increasing of beds in hospitals and the related medical treatments. There are the occurrences of changes since the last few months due to this global pandemic. Due to these changes there are seen deliriums in great number. There followed only lock down around the world and craving for alternative jobs. In this struggle there is the loss of occupations on the parts of job holders and there are no ways for earning livelihood due to staying at home.

**Keywords:**

Socio-economic, moral and mental perspectives, ways of recovery

**INTRODUCTION**

The predominance of this disease, Corona virus that's marked for the first time at the province of Hubei, in the Town of Uhaan, in China, in December ,2019 and instead of this World Health Organization declared it - a global pandemic - in 11th March, 2020. And according to this declaration , the virus is named as COVID - 19 ( R. Prasad 2020). Besides, there are seen the predominance of covid 19 in the world nearly in 197 countries. To prevent this pandemic the governments from each country started to take effective measures. Generally, there arises a simple question in our mind that - what's COVID - 19? From whiter has it come? - that drives the world towards apocalypse and as its impact falls on socio-economic, mental and moral layers. The word *virus* that means poison. A virus that arises from an animal's body and it becomes malicious for human being. Viruses as polio virus, influenza virus, and again human Corona virus 229E, sars Corona virus that spread in human society in 2003 , sars Corona virus NL63 in 2004, HKUL virus , mars Corona virus in 2012 that inflicted human being, although it's not took the form of pandemic but sars cov 2 took the form of pandemic since 2019. And its results are the death-processions around the world. When this virus is viewed with the aid of telescope, it's seen that its shape is of circular covered like mushrooms with fork like protein ( Spike protein). That's it looks like a crown. The word crown whose Latin origin is Corona. After experiments the scientists told that it has similarities with severe account respiratory syndrome ( SARS), whose origin is from a bat. The scientists told that the protein which has similarities with the protein of a bat is of 98 percentage. This is the protein of novel Corona virus. They too proposed that SARS Cov 2 whose protein is Corona virus 19 . That means covid 29 causes this. This virus enters into human cell ACE-2 that means it enters with the aid of angiotensin converting enzyme 2



respirator. The Spike proteins in covid 19 which is prone to be attached with the human cell of respirator more than 10-20 times. And that's why this virus spreads speedily in human society from one body to another ( Dr. MD. Roshidul haque, 2020).

#### **THE MEDIA AND SYMPTOMS OF COVID- 19 DISEASE IN HUMAN BODY**

First of all, if anybody is infected with COVID - 19, it spreads through the subtle droplets of respiratory system. If the droplets are attached with anything and anybody touches that particular thing and then he touches his nose or face , it's prone to be infected. And if that person is infected , there are some symptoms to be seen within two days or two weeks . The symptoms are mainly like fever, coughing, and having pains during inhaling and exhaling. Besides there are so many symptoms like joint pains, throat pain, headache, losing the flavors, suddenly jerking etc (Goutam Menon 2020).

#### **COVID – 19 AND MENTAL PERSPECTIVE**

The impact or expansion of COVID – 19 drives the world towards uncertainty. There are some effective measures or how we can get respite these phenomena are told by daily newspapers and various magazines. In spite of various efforts for prevention and many experiments this virus spreads with unimaginable speed and its results are the loss lives. Watching and reading these news there arises anxiety within human beings. That's why it made an impact on human minds. Especially those persons who had solitudes previously and who are maniac on cleanliness, this virus made them fallen into deep concerns. Now the question is what's delirium? Its answer is deep mental pressure or indulging into a subject apprehendly . Suppose, anybody is thinking on a subject all-time then his mind engrosses with apprehensions. And it becomes uneasy for that person to come out from such a situation. These apprehensions are deliriums and it can lead anybody towards death (BBC 2020). Due to the pre dominance of this virus there is seen Lock Down in the world and then followed struggle for livelihood. In this struggle many populace lost their very jobs and due to home quarantine they found no ways for earnings and because of it they have fallen into economic crisis and it makes a mental pressure on those persons. As a result there is seen suicidal tendency within human society and a chance for being involved in many antisocial activities. Due to this there is seen Lamentations for losing very jobs and on the other hand there is seen high price in essential food accessories and this crisis begets poverty, economic crisis, and unemployment. And being unemployed it made populace tensed with concerns. And due to this virus there's seen social distancing from the friends and relatives and it makes them alienated and this alienation leads them towards mental pressure. For a person there are two hemispheres one is his/her physical world and another is mental world. To stay hake and hearty one needs these hemispheres properly. And one becomes weak because of the lacking of one of the two hemispheres. According to French philosopher René Descartes, these two worlds are for a person is mutually depended. In spite of being different, body and mind act and react towards each other. So it can be said that these two worlds are analogous . If one becomes weak, and then another too becomes weak. Due to the impact of Corona virus there are seen the pressures of livelihood and there increases tensions among populace. As a result they lost their mental balance and because of this they become physically weak and too there are the possibilities of losing immunity Power within human beings. As a result after losing immunity Power they easily become infected with this virus and they are going to heaven.

#### **COVID – 19 DISEASE AND THE MORAL AND SOCIO-ECONOMIC PERSPECTIVES**

In this universe human beings are the supreme animal because they possess intellect. That's why human being is called intelligent. By using intellect they establish themselves within a society. Not only human beings are intelligent but also they are social beings, they have an intrinsic relationship with society. That's why they should establish a strong mutual relationship with each being. As human beings are intelligent, there should be interpretation on the morality based on human behavioral tendency. Morality is something that's associated with good -evil, justice-injustice, just-unjust etc. Aren't humans are responsible for COVID - 19? This question arises within our mind. For each event that occurred on this Earth , there are human beings who are responsible either directly or indirectly. I think for this novel Corona virus, humans are responsible indirectly. On this Earth each beings are dependable on each other in many ways. On this dependability ,the important one is inhalation. One inhales oxygen and exhales carbon dioxide and another being takes it. Again for food habitation one is dependable on another. Within beings one is tree and another is an animal. There are herbivores , carnivores,and omnivores amongst the animals. This nature nurtures every beings as a mother ; that's why humans should use his intellect to make a harmonious bonding with nature and of course, this is expected to



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nature. But , instead humans try to abolish rivers , mountains, seas, and atmosphere. Humans clipped the very forests for urbanization and made sky- kissing palaces. Besides, the usages of chemical fertilisers and pesticides made the rivers and and sources of water lifeless. Therefore, nature lost its very balance (Sonmay news, May 2020). We've learned that the novel Corona virus has been originated from bat . Now , it's obvious that if humans didn't harm the animals and if they wouldn't have been omnivores, this virus would never have originated and never took the form of pandemic.

This harmful disease , Coronavirus made us to judge the very activities of few people on the basis of morality. To have respite from Corona, the government declared Lock Down. As a result all kinds of activities such as tourism, entertainment, industry, training, and international activities are suddenly stopped; and so many people become unemployed. Being unemployed, they become penniless. As a result, in future there's also apprehensions of losing jobs. The government declared that there will be no shortages of essential accessories but few culprits used this occasion and they stored the very accessories and spread the rumors that within few days there will be no materials in the market and even the markets will get closed due to shortages. After spreading this rumours , the common people get apprehended. If there are no supplying of materials , due to this apprehension the people tried to store accessories in their house . As a result there is crisis of essential accessories in the markets and follows the high price in the commodities. Such a condition is very terrible for those who are daily laborers. Indeed, such a situation is very anxious. These problems become more complicated by a class of wicked persons and by some irresponsible persons who only focus on their treasury . It's not only limited to humans. There becomes a very active kind of dark underworld due to the downfall of socio-economic conditions. When people become desperate, the activities of such people indicate the immorality within men . That never be accepted on moral ground. The virus becomes took countless lives and it indulges in a horrible game. But, once this game must be stopped. Then humans will dream for life newly in this universe . As , after flood a land becomes very fertile; similarly , the world must watch that - there's none but humans win above all ( Ajanta Sinha2020).

## COVID-19 DISEASE AND THE WAYS TO RECOVERY

First of all one thing is to strengthen immunity Power and it will prevent to be infected. And at the same time, we need hard work and vitamins as - vitamins A, E, C, therefore, we should take food that's rich with zinc. Besides we have to take egg, milk, fish, guava, lemon, cabbages, papaya, banana, and fresh vegetables. Because of these, there will be antibody against COVID - 19. Humans should be conscious regarding their health. That's why we should use mask, hand sanitizer, washing hands with soap and need social distancing ( WHO2020). Everybody should be conscious about how does this virus inflicts in human body, it's symptoms, what parts in body becomes affected after it and we should know how one once affected can be cured after changing few habits. With the prevention of the spread of COVID - 19, the government should focus on economic development as that's beforehand. At the same time, the contributions of the media like TV, social media, and neighbors are unavoidable. With this the mental conditions will be improved and the socio-economic conditions will also be improved.

## CONCLUSION

Although covid 19 spreads around the world, humans can get respite from this virus if we follow up regularly the preventive measures. Now this is the only way to get respite until we get the vaccine. In this universe scientists achieved so many unbelievable deeds, now it's true they will invent vaccine and humans will get the new ways to live. Now we can draw a song sung by popular singer Nachiketa, he signs, " Once the tempest will be stopped and the world will be calmed down". As this virus is contagious and it apprehends to be infected, therefore we need social distancing and proper information regarding COVID - 19. Besides we should follow the instructions of a physician and it provides mental peace. For a while we should exercise those habits from which we get mental satisfaction. Humans should listen to music, drama and they can read religious books and even they can talk to their relatives virtually. To lessen the mental pressure, we need a sound sleep. If we can't avoid mental pressure, it's a great horrible thing for humans. So we should follow the necessary steps to lessen the mental pressure. In this pandemic we should be aware of the fact that living solely is not a good thing, we have to live together that's the proper meaning of living. That's humans should forget selfishness and they have to be humanitarian, sympathetic, and loving towards every being.



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## DECLARATION

This paper is original and not published anywhere.

## Ugc Journal Details

**Name of the Journal :** International Journal of Innovative Research in Technology

**ISSN Number :** 23499002

**e-ISSN Number :**

**Source:** UNIV

**Subject:** Chemical Engineering(All Education Engineering(All)

**Publisher:** IJERT

**Country of Publication:** India

**Broad Subject Category:** Multidisciplinary

[Print](#)



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In recognition of the Publication of the paper entitled

**A REVIEW ON MENTAL STRESS AND ITS PHYSIOLOGICAL EFFECTS WITH  
SPECIAL REFERENCE TO YOGA AND PHYSICAL EXERCISE**

Publication In e-Journal  
Volume 8 Issue 1 June 2021

PAPER ID: 151588

*Suyashankar Mishra*  
EDITOR IN CHIEF

INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH IN TECHNOLOGY | IJIRT  
website : [www.ijirt.org](http://www.ijirt.org) | email ID : [editor@ijirt.org](mailto:editor@ijirt.org) | ISSN : 2349 - 6002



## A Review on Mental Stress and its Physiological Effects with Special Reference to Yoga and Physical Exercise

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**Abstract** - In biological activity, stress is a condition or feeling of body characterized by frustrated, angry or nervous due to physical or mental tension. Stress is of acute and chronic type or short and long term of periods effecting respectively whereas chronic stress can accelerate more physical and mental problems including headache, rapid breathing, heartburn, increased depression, insomnia etc. Yoga is an important method linked with mind and body provides relaxation as well as reduced stress, it can reduce pulse rate respiratory rate, blood pressure and maintain the normal activity of autonomic nervous system specially the parasympathetic nervous system whereas exercise is movement of body parts in static and dynamic state which has ability to change in different system like increase size of heart, number of capillaries, value of vital capacity (VC), tidal volume (TV), activity of respiratory muscles and exercise can maintain blood pressure, blood level of cholesterol, glucose etc. There are numerous physiological changes occurs in chronic stress condition, that changes may be suppress by regular physical exercise and yoga, finding out the different causes, symptoms, and recovery points in the article.

**Index Terms** - Stress, Yoga, Exercise.

### INTRODUCTION

Physiology or science of life is a way of biology; it deals with structural, functional, and behavioral activity of living system of an individual. The normal physiology of human includes normal range of different parameters such as blood pressure, heart rate, pulse rate, respiratory rate, blood glucose, protein lipids etc. level. In different chronic or severe condition of individual, the normal parameters are in

abnormal include increase or decrease level than normal. The stress is an important abnormal condition; it is emotional feel of nervous. The stress may be long durable or chronic stress and short durable or acute stress, if short durable may be cure but while it is long durable is harmful of body that initiate different disease. There is a large list of effect of stress e.g., high sugar, high pressure, coronary heart disease or CHD, obesity, depression etc. (Medline plus, 2020). The physical exercise or movement of body parts may be at static or dynamic state can accelerates the changes in different system of body, there are so many changes in cause of regular exercise, cardiovascular system, respiratory system, muscular system, nervous system etc., these changes are increase size of heart, cardiac output, vital capacity, tidal volume, number of blood capillaries etc. on the other hand the decrease of respiratory rate, blood sugar level, cholesterol level etc. These changes may be again come to past condition through stop the exercise. The exercise is more helpful for mental stress. The stress is also not dangerous, it tries to release danger by alert or fight or flight response through autonomic nervous system, this positive response while is not occurs when the stress continuo to chronic then it will more dangerous. The numerous symptoms are noted are dizziness, headache, indigestion, restless, tiredness, diarrhea, etc. The exercise is more helpful for mental stress (Cleveland clinic, 2020). The urban areas peoples of India suffering with mental stress due to low economical condition. In a statistical record, the patients of mental stress of the age between 30 - 49 year or over the age 60year (R. Srinivasa Murthy, 2017). Due to cause of pandemic situation by n-corona



virus affect the socio-economical, educational system that hampered the get job, low economics, bad teaching learning process etc. The large numbers of job are losing by seal of producing system or factory or company, numerous peoples are lost their job, suffering with the bad economic in pandemic year 2020 in different countries of world include India. The mental stress is developed by the pandemic situation, but the situation may be developed by after long days with the helps through awareness and donation of different necessary products of human live via GOVT, NGO, other units. The health awareness also suppressants the mental stress that may be more prominent through meditation or yoga. There is an evidence the working people are little suffered with stress specially women are more benefited involving with job (Lilian Wiegner et al, 2019). Survey report in 2017 shows that 197.3 million Indian people suffering with mental disorders, out of the data 45.7 million depressive disorders and 44.9 million anxiety disorders patients (WHO, 2017). The regular physical exercise can improve yourself fitness and also helps for prevention of different diseases. The cause of exercise endorphin is release that is good neurotransmitter initiate good feeling in brain. Exercise also helpful for reduce the stress, increase the confidence, mood, relax, sleep etc., and decrease the stress, depression, and anxiety (Mayo clinic staff, 2020). The physical exercise also helpful for the physical development and release of mental stress full life through increasing the blood supply as well as nutrients, glucose to exercising parts of body and release of neurotransmitter endorphins respectively, there are large effects of exercise e.g. increase capillary numbers with more gaseous or nutrients exchange, increase vital capacity (VC), tidal volume (TV), prevent the pulmonary edema, blood sugar and cholesterol level etc. which are also related with stress less (Robin Madell, 2020). The evidence recorded the regular exercise has positive effects for the treatment of anxiety, depression, long-term mental health acts as medication (ADAA, 2020).

#### CAUSE OF STRESS

Stress is feeling may be of physical tension and emotional or mental tension, there are numerous causes of stress are including under more pressure, in front of big or large changes, uncontrolled situation,

times of uncertainty etc. (Mind for better mental health, 2017). Stress is a common condition of human life, but it can be harmful for health while proceeds for chorionic periods. There are common causes are working for long time, unhappy in job, more workload, management system poor in workplace, lack of safeties etc. the social cause of stress are divorce, lack of job, loss of job, death of loved person, chronic illness, loveless, lack of love via friends or relatives etc. (WebMD, 2020). There are several types of yoga and exercise that can recover the stress or stressfully lifestyle. There are so many causes of stress in pandemic by COVID – 19 are 1. Feeling of fear, anger, sadness, worry, numbness of frustration, 2. Changes in appetite, energy, desires, interests, 3. Difficulty concentrating and making decision, 4. Difficulty sleeping or nightmares, 5. Physical reactions, such as headaches, body pain, stomach problems, skin rashes, 6. Chronic health problems, 7. Chronic mental health conditions, 8. Increased use of tobacco, alcohol, and other substances (CDC, 2021).

#### EFFECTS OF STRESS ON HUMAN

The stress for long term is more harmful in body. These are physical effects include headache, trouble, sleeping, muscle tension, skin problems, indigestion etc., mental effects are lack of concentration, problems of learning and speech etc., emotional effects are more excitable, anxiety, depression, anger, irritability, problems in relationship etc. and the behavioral changes due to cause of stress are anorexia, drug abuse, accident porn etc. (Fairview, 2019). The stress response or fight response for helpful or recover in our body's activity, but while it is longer then too many hazards are noted include irritability, anxiety, depression, headache insomnia etc. The different systems are suffering with stress and characterized are the endocrine system and nervous system also control the activity of other system of body in normal. Due to stress the hypothalamus releases C-RH which effects anterior pituitary for synthesis and secretion of ACTH. The ACTH travel via blood circulation and its target gland is adrenal gland. The adrenal gland release cortisol which increases the heart rate or activity of heart as well as increase blood circulation into acting organs, muscles etc. that will be helpful for decrease the stress less. The hypothalamus also will be acting until the normal physiological condition. Respiratory



rate, heartburn, acid reflux also is the suppressor of stress. In short-term stress the testosterone level increase but in long term stress condition decrease the testosterone level which is dangerous for normal reproduction. Stress can hamper the reproduction process, it can cause of erectile dysfunction, infertility etc. For long durable stress hampered the immune system of body the flu, infection is common (Timothy J. Legg, 2020). The novel corona virus that causes of pandemic with disease COVID – 19 throughout world include India. The pandemic is suppressed by lockdown in India from March 2020 that suppress the rapid spread the infection in human being on the other hand the death rate is decline but the lockdown effects on socio-economical condition, education etc. and lockdown hampered the mental condition due to cause of loss of job of many peoples, loss of many of daily payable workers, laborer or contract basis workers come to self-home also suffering with money, accommodation and job (Britannica, 2021).

#### PHYSICAL EXERCISE AND YOGA WITH STRESS

The major five points of physical exercise has recorded which are involved with reduce the stress are chemical epinephrine of brain release during exercise also helpful for decrease the stress. The blood circulation is increase in stressful area of brain during exercise also effective for reduce the stress. The gym session or walking can reduce the irritation or stressful. The regular exercise also for maintain normal body weight, reduce the risk of cancer etc. which are also helpful for reduce the stress. The yoga increases the activity of breathing capability that also helpful for oxygen supply in all living cells as well as increase the metabolic status. The 15 minutes meditation also acting in control of stress and helpful for initiate the cognitive development. The yoga is powerful for decrease the stress, it causes of relaxation and cause of recovery of stress (Sara Clark, 2020). The mental stresses that can initiate harmful disease which are also reduce by relaxation of physiological parameters via exercise and yoga. Negative stress or chronic stress also recovers slowly by large time meditation or yoga, but positive stress quickly recovers which is good effective for life. There is not too much evidence for stress less by yoga and exercise. Breathing and relaxation techniques of yoga also

powerful for decrease the stress. There are some factors also helpful for stress less are intake regularly balanced diet contain fruits, vegetables that maintain immune system in stress life. Time spending without job with friends or family members also helpful for stress less (Stacy Sampson, 2020). There are some types of exercise has identified that are responsible for release of chronic stress are biking, jogging, swimming, playing tennis, dancing, rowing the following exercise types are aerobic as well as oxygen consuming and long durable with slow speed (Robin Madell, 2020). The Harvard medical school has identified the six important techniques of relax stress are Abdominal breathing, body scan, guided imagery, mindfulness meditation, repetitive prayers, and yoga tai chi qigong (Julie Corliss, 2020).

#### CONCLUSION

Mental stress through neural stimulation in human is effective or not effective sometimes. For the healthy lifestyle exercise regularly with intake of fresh foods maintain the caloric and nutritional values are essential. The good health with or without mental stress exercise with meditation or yoga is more potent or helpful that are not only the factors of decrease mental stress, but they also decreasing factors of different diseases e.g., CHR, occupational disease, diabetes mellitus, obesity, atherosclerosis etc. The release of neurotransmitter endorphins during exercise or yoga is the best for feel good that is latest point of release of mental stress.

#### DECLARATION

This paper is original and not published anywhere.

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### CONFIRMATION LETTER

Ref No : IJIRT 151588 / Volume 8 / Issue 1 /

To,  
Monoj Maiti  
Published in : Volume 8 | Issue 1



**Subject:** Publication of paper at International Journal of Innovative Research in Technology

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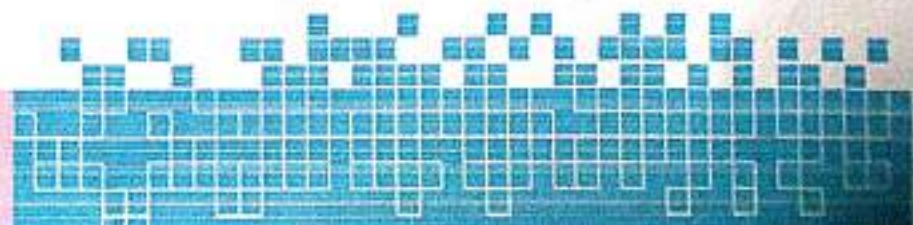
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About IJIRT	: ISSN Approved – ISSN : 2349-6002, International Peer Reviewed Journal, Refereed Journal, Indexed Journal, Impact Factor: 5.87
Paper ID	: IJIRT 151588
Title of Paper	: A REVIEW ON MENTAL STRESS AND ITS PHYSIOLOGICAL EFFECTS WITH SPECIAL REFERENCE TO YOGA AND PHYSICAL EXERCISE
Impact Factor	: 5.8
Licence	: ISSN, DOI and Creative Common Approved
DOI	:
Published in	: Volume 8   Issue 1
Publication Date	: 07-06-2021
Page No.	: 0-0
Published URL	: <a href="http://ijirt.org/Article?manuscript=151588">http://ijirt.org/Article?manuscript=151588</a>
Authors	: Monoj Maiti, Mitali Maity (Maiti), Nanigopal Das

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ISSN 2349-6002



ISSN 2277 - 5730  
AN INTERNATIONAL MULTIDISCIPLINARY  
QUARTERLY RESEARCH JOURNAL

# AJANTA

Volume - IX

Issue - IV

OCTOBER - DECEMBER - 2020

ENGLISH PART - III / MARATHI PART - I / HINDI PART - I

Peer Reviewed Referred  
and UGC Listed Journal

Journal No. 40776



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❖ PUBLISHED BY ❖

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Aurangabad. (M.S.)



## CONTENTS OF HINDI PART - I

अ.क्र.	लेख और लेखक का नाम	पृष्ठ सं.
१	मुक्केबाजी में घुसा मारने की क्षमता पर सूर्य भेदन और चन्द्र भेदन प्राणायाम का प्रभाव डॉ. जयंत कुमार रामटेके	१-४
२	बौद्ध दर्शन : योग डॉ. जितेंद्र सावजी तागडे	५-१२
३	भगवद्गीता में उपदिष्ट धर्म के मूल तत्व ही तनाव प्रबंधन के सूत्र हैं डॉ. अलका बागला	१३-१६
४	श्रीमद्भगवद्गीता में समत्वबुद्धियोग : मानसिक आरोग्य संकल्पना डॉ. अशोक कैवर शेखावत	१७-२२
५	वैश्विक महामारी से बचाव के लिए पतञ्जलि विरचित योगदर्शन के अनुसार प्राणायाम के महत्त्व Dr. Parimal Mandal	२३-२७
६	कोविड-१९ में मानसिक स्वास्थ्य के लिये योग डॉ. प्रमोदकुमार केशव नंदेश्वर	२८-३१
७	तनाव प्रबंधन में योग की भूमिका सीरभ कण्डवाल	३३-३८
८	महिलाओं के जीवन में योग का महत्त्व : कोविड-१९ के संदर्भ में डॉ. शालिनी चतुर्वेदी	३९-४३
९	कोरोनाकाल में योग की भूमिका डॉ. मीरा दुवे	४४-४६

## ५. वैश्विक महामारी से बचाव के लिए पतञ्जलि बिरचित योगदर्शन के अनुसार प्राणायाम के महत्त्व

Dr. Parimal Mandal

Assistant Professor, Department of Sanskrit, Swarnamoyee Jogendranath Mahavidyala.

महर्षि पतञ्जलि ने योग की परिभाषा देते हुए कहा है "योगश्चित्तवृत्तिनिरोधः"<sup>1</sup> योगसूत्रमें उन्होंने पूर्ण कल्याण तथा शारीरिक, मानसिक और आत्मिक शुद्धि के लिए अष्टाङ्ग योग बताया है। वे अष्टाङ्ग योग है-यम, नियम, आसन, प्राणायाम, प्रत्याहार, धारणा, ध्यान, समाधि<sup>2</sup>। इन अष्टाङ्ग योग के चौथा अङ्ग प्राणायाम है। इन्द्रिय तथा शरीर की शुद्धि के लिए प्राणायाम आवश्यक है। प्राणस्य श्वायामः इति प्राणायामः इस व्युत्पत्ति से प्राणायाम शब्द निष्पन्न होता है। प्राण+आयाम इन् दो शब्दों के संयोग से प्राणायाम शब्द बना है।

प्राण शब्द के अर्थ है शक्ति देना और आयाम के अर्थ है नियन्त्रण। महर्षि पतञ्जलि प्राणायाम की परिभाषा देते हैं-

तस्मिन् सति श्वासप्रश्वासयोगतिविच्छेदः प्राणायामः ॥<sup>3</sup>

अर्थात् श्वास प्रश्वास के गति को नियन्त्रित करना प्राणायाम है। सरल भाषा में जिस क्रिया से हम श्वास लेने की प्रक्रिया को नियन्त्रित करते हैं उसे प्राणायाम कहते हैं। हठयोगप्रदीपिका में कहा गया है-

चले वाते चलं चित्तं निश्चले निश्चलं भवेत्

योगी स्थाणुत्वमाप्नोति ततो वायुं निरोधयेत् ॥<sup>4</sup>

अर्थात् प्राणों के चलायमान होने पर चित्त भी चलायमान हो जाता है और प्राणों के निश्चल होने पर मन भी स्थिर: निश्चल हो जाता है और योगी स्थाणु हो जाता है। अतः योगी को श्वासों का नियंत्रण करना चाहिये।

यह भी कहा गया है-

यावद्वायुः स्थितो देहे तावज्जीवनमुच्यते ।

मरणं तस्य निष्क्रान्तिः ततो वायुं निरोधयेत् ॥<sup>5</sup>

अर्थात् जब तक शरीर में वायु है तब तक जीवन है। वायु का निष्क्रमण (निकलना) ही मरण है। अतः वायु का निरोध करना चाहिये।

श्वास लेने के सम्बन्ध में योगशास्त्र के अनुसार दस प्रकार के वायु बताया गया है-

प्राणोऽपानः समानश्चोदानव्यानी च वायवः ।

नागः कूर्मोऽथ कृकरो देवदत्तो धनंजयः ॥<sup>6</sup>

अर्थात् प्राण, अपान, व्यान, समान, उदान, व्यान, नाग, कूर्म, कृकर, देवदत्त, धनञ्जय- ये दस प्रकारके वायु हैं।

इनमेंसे अग्ने प्राणादि पाँच मुख्य है। पिछले पाँच उन्हींके अन्तर्गत है। बहुत सारे योगीजिसप्रकार अपान वायु में प्राणवायु के हवन करते है और उसीप्रकार प्राणवायु में अपानवायु को हवन करते है इसमें मुख्य अवस्था हो जाने पर अन्य योगीजन प्राण और अपान दोनों की गति को रोककर प्राणायाम परायण हो जाते है।-

अपाने जुहवति प्राणं प्राणेऽपानं तथापरे

प्राणापानगती रुद्ध्वा प्राणायामपरायणाः ॥ 7

कई योगाचार्यने प्राण और अपान वायु को मिलानेको प्राणायाम कहते है। प्राणायाम रहनेसे रेचक पूरक कुम्भक की प्रक्रिया समझी जाती है-

प्राणापानसमायोगः प्राणायाम इतीरितः ।

प्राणायाम इति प्रोक्तो रेचकपूरककुम्भकैः ॥8

शंकराचार्य ने अपरोक्षानुभूति में कहा है-

चित्तादि सर्वभावेषु ब्रह्मस्तेनैव भावनात् ।

निरोधः सर्ववृत्तीनां प्राणायामः स उच्यते ॥9

अर्थात् चित्तादि समस्त जागतिक पदार्थों में ब्रह्मरूपता की भावना करते रहने में जो सम्पूर्ण वृत्तियों को निरोध हो जाता है वही प्राणायाम कहलाता है।

प्राणायाम के भेद-

पतञ्जलि ने तीन प्रकार के बतलाया है-

बाह्याभ्यन्तर स्तम्भवृत्तिदेशकालसंख्याभिः परिदृष्टो दीर्घसुक्ष्मः<sup>10</sup>

अर्थात् आभ्यन्तर बाह्य और स्तम्भवृत्ति भेद से प्राणायाम तीन होता है। इन तीनों प्राणायामों के योगी देश, काल, और संख्या की दृष्टि से अवलोकन करता है कि वह किस स्तर तक पहुँचा है इसप्रकारसे परीक्षण करते करते प्राणायाम की जैसे जैसे प्रगति होती है वैसे वैसे उनमें दीर्घता एवं सुक्ष्मता बढ़ता चला जाता है। प्राणायाम की तीनों लक्षणों के इसप्रकार के इसप्रकार से समझा जा सकता है।

बाह्यप्राणायाम्-

यत्र प्रश्वासपूर्वको गत्यभावः स बाह्यः ॥11

जिस प्राणायाम में श्वासको बाहर निकाला जाता है और प्राण की स्वाभाविक गति का अभाव होता है। वह बाह्यवृत्ति प्राणायाम है। बाह्यवृत्ति प्राणायाम को रेचक कहा जाता है -कोष्ठस्य कोयर्विहितः सारणम् ॥ 12

आभ्यन्तरवृत्ति-

यत्र श्वासपूर्वको गत्यभावः स आभ्यन्तरः ॥13

जिस प्राणायाम में श्वास को अन्दर खींचकर उसकी स्वाभाविकगति का अभाव होता है उसे आभ्यन्तर प्राणायाम कहते हैं। यह आभ्यन्तरवृत्ति प्राणायाम को पूरक कहा जाता है

स्तम्भवृत्ति-

तृतीयः स्तम्भवृत्तिर्यत्रोभयाभावः सकृदप्रयत्नाद् भवति ॥14

जिस प्राणायाम में प्राण को जँहा की तँहा रोक देनेके पूर्ण प्रयास को स्तम्भवृत्ति प्राणायाम कहते हैं। इस प्राणायाम में साधक की उदर कुम्भक की आकृति जैसी हो जाती है। इसलिये इसे कुम्भक प्राणायाम भी कहते है। प्राण को जँहा की तँहा रोक देने के विषय में भाष्यकार दृष्टान्त प्रस्तुत करते है कि-

यथा तप्ते न्यस्तमुपले जलं सर्वतः संकोचमापद्यते तथा द्वयोर्युगपद भवत्यभाव इति ॥5



अर्थात् तपे हुये लोहे पर जब पानी डाल दिया जाता है अथवा गरम तावे पर भी जब पानी डाल दिया जाता है तब वह पानी चारों तरफ से संकुचित हो जाने है वैसे ही प्राण को भी जँहा की तँहा रोक दिया जाता है इसीको ही स्तम्भवृत्ति प्राणायाम कहा जाता है। यह स्तम्भवृत्ति प्राणायाम को सहित कुम्भक प्राणायाम भी कहते है।

रेचक, पूरक, कुम्भक ये तीनों प्रकार प्राणायाम दीर्घ तथा सूक्ष्म हुये अथवा नहीं इसकी परीक्षण साधक को देव काल और संख्या की की दृष्टि से करना चाहिये। देश की दृष्टि से अभिप्राय यह है कि जिस प्राणवायुको हम शरीर से बाहर निकालकर रखते है वह हमारे नासिकापुट से कितनी दुर तक अर्थात् देशतक जाता है इसका परीक्षण करके उसको अभ्यास के द्वारा अधिक से अधिक बढ़ाने का प्रयास करना देश के दृष्टि से बढ़ाना कहता है।

काल के दृष्टि से बढ़ाने के अभिप्राय यह है कि जो प्राण हमने रेचक रूप में अन्दर खींचा और अन्दर रोका अन्दर रोकने और खींचने के काल को दीर्घ करने को काल की दृष्टि दीर्घ करना कहा जाता है। इसका अभिप्राय यह है कि कल्पना किजीए प्रथम दिन दस सेकेण्ड प्राण को अन्दर रोका और पांच सेकेण्ड बाहर रोका। इसके अनन्तर अभ्यास करते हुए इन तीनों प्राणायामों की स्थिति में काल को बढ़ाना यही काल की दृष्टि से प्राणायाम को दीर्घ करना कहलाता है।<sup>16</sup>

संख्या की दृष्टि से अभिप्राय यह है कि कल्पना किजीए योगाभ्यासी ने पहले दिन तीन बार प्राणायाम ही अभ्यास किया। दुसरे दिन छः बार प्राणायाम किया इसीप्रकार प्राणायाम को संख्या को अपने शक्ति के अनुसार अभ्यास के द्वारा बढ़ाने का प्रयास करना चाहिये। इस प्राणायाम की संख्या को इडोम संख्या तक अभ्यास द्वारा बढ़ाया जा सकता है परन्तु अधिक संख्या बढ़ाते हुए भोजन और ब्रह्मचर्य आदि की स्थिति अर्थात् शारीरिक शक्ति की क्षमता को सावधानीपूर्वक देख लेना आवश्यक है।<sup>17</sup>

प्राणायाम की क्रियाओं की भिन्नता से कुम्भक के आठ अवान्तर भेद बतलायेगये है।

सहित: सूर्यभेदश्च उज्जयी शीतली तथा।

भस्त्रिका धामरी मूर्द्धा केवली चाष्टकुम्भकः ॥18

सहित, सूर्यभेदी, उज्जयी, शीतली, भस्त्रिका, मूर्द्धा, और केवली भेदसे कुम्भक आठ प्रकारका है। हठयोगप्रदिपीका में कुम्भकका आठवां भेद प्लाचिनी माना है।

आधुनिक योग में प्राणायाम के अन्य कई भेद भी बताये गये हैं। जैसे हठयोगप्रदिपीका आदि ग्रन्थों में कुम्भकका भस्त्रिका आदि आठ प्रकारका भेद माना गया है।<sup>18</sup> समस्त प्राणायामों का यही उद्देश्य है कि शरीर और इन्द्रिय को मग्न दूर करना इससे चित्त की सुप्त शक्तियाँ जागृत हो जाती हैं ध्यान में चित्त स्थिर होने लगता है।<sup>19</sup> ये तीनों प्राणायाम के अतिरिक्त पतञ्जलि ने विषयाक्षेपी नामक चतुर्थ प्राणायाम स्वीकार करते है।

विषयाक्षेपी-

यह चतुर्थ प्राणायाम पूर्वसूत्र में वर्णित तीन तरह के प्राणायामों से पृथक है। सूत्रकार ने यही तथ्य प्रदर्शन करने के लिये यँहा सूत्र में चतुर्थ पद का प्रयोग किया है। इस प्राणायाम के लक्षण करते हुये सूत्रकार कहा है कि-

बाह्याभ्यन्तरविषयाक्षेपी चतुर्थः।<sup>21</sup>

अर्थात् बाह्य एवं आभ्यन्तर विषय की अपेक्षा से करना। इसका अभिप्राय यह है कि प्रथम तीनों प्रकार के प्राणायाम के सिद्ध हो जाने के बाद यह चतुर्थ प्राणायाम किया जा सकता है। बाह्य एवं आभ्यन्तर विषयसमूह

के चिन्तन का परित्याग कर देने से अर्थात् इस अवधि में यदि प्राण बाहर जा रहा हो अन्दर आ रहा हो अवस्था गतिशील हो या स्थिर हो - इसतरह की जानकारी को स्वतः परित्याग करके और मन को देने से देश, काय, और संख्या के ज्ञान के अभाव में प्राणों की गति स्वयं ही जिस किसी देश में रुक जाती है। यह आसानी से होनेवाला राजयोग का प्राणायाम है। इसमें मन की चञ्चलता शान्त होने के कारण प्राणों की स्वाभाविक गति स्वयं ही रुक जाती है और पूर्वमूत्र में वर्णित प्राणायामों में प्रयत्न द्वारा प्राणों की गति को स्थिर करने को अभ्यास करते करते प्राणों की गति निरोध हो जाता है। यही इस चतुर्थ प्राणायाम की विशिष्टता है।

#### प्राणायाम के फल-

पतञ्जलि के अनुसार प्राणायाम दो प्रयोजन है- मलिननिवारण और स्थिरता। मलिननिवारण स्थिरता का उपयोगी होने से अबान्तर प्रयोजन और स्थिरता मुख्य प्रयोजन हैं। इन दो प्रयोजनों में पतञ्जलि प्रथम अबान्तर प्रयोजन का वर्णन किया है।

#### ततः क्षीयते प्रकाशवरणम्<sup>122</sup>

तब प्राणायाम के पश्चात् प्रकाश का आवरण नष्ट हो जाते हैं अर्थात् प्राणायाम के अनुष्ठान करने से बुद्धिमत्त्व के प्रकाशरूप विवेकख्याति का आवरण करनेवाले अविद्यादि क्लेश जन्यपाप क्षीणता को प्राप्त होते हैं। भाष्यकार के अनुसार प्राणायामों के अभ्यास करनेवाले योगी का प्रकाशस्वरूप विवेकज्ञान का आच्छादित करनेवाले कर्म क्षीण हो जाता है। जो बात कही गयी है उसको ही पद्मशिखाचार्य कहते हैं कि- इन्द्रजाल के समान महामोहरूण अविद्या से प्रकाश स्वभाव चित्तमत् का आच्छादित करके वही आवरण हिंसादि पाप कर्मों से नियुक्त करता है। इस योगी के प्रकाश का आवरण कर्म जो संसार का निबन्धन करने वाला है वह प्राणायामों के अभ्यास से दुर्बल होता है और प्रतिक्षण क्षीण होता है तथा भाष्यकार अपने उक्त मत के समर्थन में पद्मशिखाचार्य के मत का समर्थन में पद्मशिखाचार्य के मत का उल्लेख करते हैं कि प्राणायामों से श्रेष्ठ कोई दुसरा तप नहीं है। प्राणायामों से अविद्यादि क्लेश तथा उन क्लेशों से होनेवाला पापरूप मल की शुद्धि और ज्ञान की स्फूर्ति होती है।<sup>23</sup> प्राणायाम के विषय में भगवान् मनु ने कहा है कि-

दह्यन्ते ध्यायमानानां धातुनां हि यथा ।

तथेन्द्रियानां दह्यन्ते दोषाः मलाः प्राणस्य निग्रहात्<sup>124</sup>

जैसे धातुओंके मल तपानेसे भस्म हो जाता है वैसे ही इन्द्रियो के दोष भी प्राणायाम करने से दूर हो जाते हैं।

प्राणायाम जहाँ शरीर इन्द्रियों और मन को दोषों को दूर करता है वहीं पर जो पाँचों प्रकार के प्राण माने जाते हैं- प्राण, अपान, व्यान, उदान और समान। इन सभी प्राणों पर योगी का पूर्ण रूपेण अधिकार हो जाता है। परन्तु भावुकतावश प्राणायाम को बहुत अधिक मात्रा में नहीं करना चाहिए। प्राणायाम करने से ध्यान की शक्ति बढ़ती है। शरीर में तेजस्विता एवं कांति भी आती है। परन्तु प्राणायाम को करना ऐसा ही समझना चाहिए जैसे कि सर्प के साथ खेलना अत्यधिक कठिन कार्य है, हमेशा यह भय रहता है कि वह अबसर मिलती ही काट लेगा इसी प्रकार प्राणायाम को भी अत्यधिक सावधानीपूर्वक करना चाहिए।<sup>25</sup>

अब प्राणायाम का पापक्षयरूप अबान्तर फल प्रतिपादन करके पतञ्जलि ने स्थिरता नामक मुख्य फल का प्रतिपादन किया है।

धारणासु च योग्यता मनसः<sup>126</sup>



प्राणायाम के नियमित अभ्यास द्वारा ही मन की धारणाओं में योग्यता प्राप्त होती है। अर्थात् प्राणायाम मन को स्थिर करके धारणा विषयक सामर्थ्य वाला कर देता है। व्यास भाष्य में पतञ्जलि के इस सूत्र के साथ प्राणायामाभ्यासादेव इतना अंश सूत्र के साथ सम्मिलित करते हैं अर्थात् प्राणायाम के अभ्यास से धारणा की शक्ति बढ़ जाने से मन एकाग्रता को प्राप्त कर लेता है। व्यास इसके समर्पण में समाधि पाद के 34 वे सूत्र को उद्धृत करते हैं -

### प्रच्छर्दनविधारणाभ्यां वा प्राणस्य ।२७

इसका भाष्य व्यास ने इसप्रकार से किया है कि- उदरस्थ वायु का नासिका छिद्र द्वारा निकालना प्रच्छर्दन है। बाहर निकाले गये प्राण वायुको आसानी से भीतर प्रवेश न करने देना उसे बाहर ही रोके रखना विधारण कहा जाता है और इन दोनों के द्वारा मन की स्थिरता सम्पादन करे।

अभी वर्तमान में जो कोरोना विश्वमहामारी चल रहा है। इस महामारी से बचने के लिये प्राणायाम महत्वपूर्ण भूमिका वहन करते हैं। क्योंकि कोरोना हमारा फेफड़े को संक्रमण करता है और इस फेफड़े को मजबूत करने के लिये प्राणायाम के बिना दुसरा कोई मार्ग नहीं है। उपरोक्त कुद्ध प्राणायाम के माध्यम से कोरोना जैसे महामारी से बच सकते हैं।

### सन्दर्भ ग्रन्थसूची

1. योगसूत्र-1/12.योगसूत्र 2/29
2. योगसूत्र-2/494.हठयोगप्रदिपीका 2/2
3. हठयोगप्रदिपीका 2/36.योगदर्शन गीता प्रेस पृ 228
4. गीता 4/298. योगीयाज्ञवल्क्य 6/2
5. अपरोक्षानुभूति 12810.योगदर्शन 2/50
6. योगसूत्र 2/5012.सर्वदर्शनसंग्रह पृ376
7. योगसूत्र 2/5014. योगसूत्र 2/50
8. योगसूत्र व्यासभाष्य 2/5016. भारतीय दर्शन शास्त्र का इतिहास पृ 471
9. भारतीय दर्शन शास्त्र का इतिहास पृ 418.गोरक्षसंहिता 195
10. हठयोगप्रदिपीका 2/4420. भारतीय दर्शन शास्त्र का इतिहास पृ 472.
11. योगसूत्र 2/5122.योगसूत्र 2/52
12. योगसूत्र व्यासभाष्य 2/5224.मनुसंहिता 6/71
13. भारतीय दर्शन शास्त्र का इतिहास पृष्ठा 47226.योगसूत्र 2/53
14. योगसूत्र 1/3428.योगसूत्र व्यासभाष्य 2/53



‘এবং মত্ৰয়া’-বিশ্ববিদ্যালয় মঞ্জুরী আয়োগ(UGC-CARE list-I 2021)  
অনুমোদিত তালিকার অন্তর্ভুক্ত।  
২০২১সালে প্রকাশিত ১৬পৃ.তালিকার (৩১৯টির মধ্যে) ৩ পৃ.৬০নং উল্লেখিত।

# এবং মত্ৰয়া

(বাংলা ভাষা, সাহিত্য ও গবেষণাধর্মী মাসিক পত্রিকা)

২৩তম বর্ষ, ১৩৬ সংখ্যা

জুলাই, ২০২১

সম্পাদক

ড. মদনমোহন বেরা

সহসম্পাদক

পায়েল দাস বেরা

মৌমিতা দত্ত বেরা

যোগাযোগ :

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গোলকুঁয়াচক, পোষ্ট-মেদিনীপুর, ৭২১১০১, জেলা-প.মেদিনীপুর, প.বঙ্গ।

মো.-৯১৫৩১৭৭৬৫৩

কে.কে. প্রকাশন

গোলকুঁয়াচক, মেদিনীপুর, পশ্চিমবঙ্গ।



৩৪. জীবনমান : ভারতীয় যোগ দর্শনের একটি নিদর্শন	
:: সোহেল রানা সরকার.....	২৬৫
৩৫. রামায়ণ ও সমান্তরাল মৌনতা :: সৌরভ দাস.....	২৭৩
৩৬. কাব্য-কিংবদন্তিতে শ্রীকৃষ্ণ-চৈতন্যের 'লীলা'ক্ষেত্র পূর্ব মেদিনীপুর	
:: সুদীপ্ত সামন্ত.....	২৮২
৩৭. জৈন দর্শনে পঞ্চব্রত ও বর্তমান সমাজ :: সুজয় গায়ন.....	২৯১
৩৮. বিশ শতকের তিরিশ-সত্তরের দশক: কৃষ্ণনগরের মুহুর্শিলের	
প্রসারে পশ্চিমবঙ্গ সরকার :: সৈকত মণ্ডল.....	২৯৯
৩৯. নদীয়ার ইতিহাস ও সংস্কৃতি :: সুমিত ঘোষ.....	৩১১
৪০. দলিত নারীওমানবাধিকার: বিশ্বায়নের নিরিখে একটি পর্যালোচনা	
:: স্বপন সরকার.....	৩২০
৪১. পৌণ্ড্র জাতির অনন্য সমাজ চিন্তানায়ক বেনীমাধব হালদার	
:: দিপালী মণ্ডল.....	৩৩৮
৪২. ভক্তিবাদী গুরুনানক, শিখধর্ম : একটি দার্শনিক প্রেক্ষিত	
:: ড. কৃষ্ণা বসু ঠাকুর.....	৩৫০
৪৩. অতিমারী কোভিড ১৯ ও উত্তর ২৪ পরগণার জনজীবন	
:: ড. বিপ্লব সরকার.....	৩৫৫
৪৪. পঞ্চকোশ :: ড. অমলেশ অধিকারী.....	৩৬৬
৪৫. শওকত আলীর গল্প : এক তেজস্ক্রিয় আরশি	
:: ড. অনুপম সরকার.....	৩৭২
৪৬. বাংলা কথাসাহিত্যে প্রাকৃতিক ও মনুবাঙ্গুট দুর্বোপের প্রতিফলন	
:: ড. ইন্দ্রাণী হাজারা.....	৩৮৮
৪৭. অতিমারী ও বেকারত্ব : একটি অর্থনৈতিক বিশ্লেষণ	
:: ড. কৌশিক দাঁ.....	৩৯৭
৪৮. ঔপনিবেশিক উত্তরবঙ্গে চা-বাগিচা শিল্প ও চা-শ্রমিক প্রসঙ্গ :	
একটি বিশ্লেষণ :: ড. মধুমিতা মণ্ডল বেরা.....	৪০৫
৪৯. ভারতের দলীয় ব্যবস্থা ও দলত্যাগের রাজনীতি :	
একটি পর্যালোচনা :: ড. মানস কুমার ঘোষ.....	৪১৩
৫০. বাঙালির সংস্কৃতি ও অবহেলিত গান্ধবীগণ	
:: ড. মধুমিতা সরকার.....	৪২৫
৫১. বাংলার ধোপা জাতির আর্থ-সামাজিক স্তরবিন্যাস এবং	
উর্ধ্বমুখী গতিশীলতার রূপরেখা :: ড. মনোশান্ত বিশ্বাস.....	৪৩২
৫২. অপুগল্পের সন্ধান : বনফুল :: ড. মিতালি টিকাদার.....	৪৪০
৫৩. আধুনিক দৃষ্টিভঙ্গিতে শ্রীমদ্ভগবদ্গীতায় বর্ণিত ভক্তিমোগ	
:: ড. পরিমল মণ্ডল.....	৪৪৫

# আধুনিক দৃষ্টিভঙ্গিতে শ্রীমদ্ভগবদগীতায় বর্ণিত ভক্তিয়োগ

ড. পরিমল মন্ডল

ভজ্ সেব্যাম্ ধাতু থেকে জিয়াং ক্তিন্— এই সূত্র অনুসারে ক্তিন্ প্রত্যয়ের  
ভক্তি শব্দ উৎপন্ন হয়েছে। ভক্তি শব্দের অর্থ হল সেবা, আরাধনা, ঈশ্বরের  
সমর্পণ ইত্যাদি। যোগ শব্দ সংস্কৃত যুজ্ ধাতু থেকে উৎপন্ন হয়েছে। যোগ শব্দের  
অর্থ হল সংযোগ। তবে এখানে ভগবানের সাথে সংযোগ হওয়াকে যোগ বলা  
হয়েছে। অতএব ভক্তিয়োগ বলতে— সেবা, আরাধনা অথবা সমর্পণের দ্বারা ভগবান  
ঈশ্বরের সাথে যুক্ত হয়ে মোক্ষপ্রাপ্তি করাকে বোঝানো হয়েছে। এই ভক্তিয়োগই  
হচ্ছে গীতার সর্বশ্রেষ্ঠ শিক্ষা। গীতাব্যাখ্যাকার রামানুজাচার্য, ভাস্করাচার্য, বল্লাভাচার্য,  
চৈতন্য মহাপ্রভু ইত্যাদি দার্শনিকগণ ভক্তিয়োগকে গীতার মুখ্য বিষয়বস্তু বলেছেন।  
ভক্তিয়োগ গীতার সর্বত্র দেখা গেলেও ভক্তিয়োগ নামক দ্বিতীয় ষটকের সপ্তম অধ্যায়  
থেকে দ্বাদশ অধ্যায় পর্যন্ত বিস্তারপূর্বক আলোচনা করা হয়েছে। শোধপরিধির সীমা  
বিশাল থাকার কারণে প্রস্তুত শোধপ্রবন্ধে প্রধানত দ্বাদশ অধ্যায়ে বর্ণিত ভক্তিয়োগ  
সম্পর্কে সংক্ষেপে আলোচনা করা হল।

ভগবান শ্রীকৃষ্ণ ভক্তির স্বরূপ সম্পর্কে বলেছেন—

মন্যনা ভব মদ্ভক্তো মদ্যাজী মাং নমস্করু।

মামেবৈষ্যসি যুক্তৈবমাআনং মৎপরাষণঃ।।<sup>১</sup>

অর্থাৎ তুমি আমাতে চিন্তা অর্পণ কর, আমার ভক্ত হও, আমার পূজা কর  
এবং আমাকেই নমস্কার করো। এরূপ করলে তুমি আমাকে অবশ্যই প্রাপ্ত করবে।  
এই জন্য আমি তোমাকে সত্যই প্রতিজ্ঞা করে বলছি, যেহেতু তুমি আমার অত্যন্ত  
প্রিয় ভক্ত।

গীতায় দ্বিবিধ ভক্তির কথা উল্লেখ আছে— সগুণ ভক্তি এবং নিগুণ ভক্তি।  
সগুণ ভক্তি বলতে কোন ভক্ত ঈশ্বরকে কোন রূপ বা আকার হিসেবে স্বীকার করে  
নিজে নিজের সম্পূর্ণ কার্য সেই ঈশ্বরের সেবাই নিয়োজন করাকে বলা হয় এবং  
নিগুণ ভক্তি বলতে ন নিরাকার ব্রহ্মের উপাসনাকে বোঝানো হয়েছে। এখান অর্জুন  
ঈশ্বরকে চিন্তা করলেন যে দুইপ্রকার ভক্তির মধ্যে শ্রেষ্ঠ ভক্ত কে?—এই প্রশ্নের



উত্তর ভগবান গীতার বিভিন্ন জায়গায় দিয়েছেন, যেমন ষষ্ঠ অধ্যায় ভগবান বলছেন—  
যোগিনামপি সর্বেষাং মদগতেনাস্তরাহ্মণা।  
শ্রদ্ধাবান্ ভজতে যো মাং স মে যুক্ততমো মতঃ।।<sup>১০</sup>

অর্থাৎ সমস্ত প্রকার যোগীদের মধ্যে যে যোগী শ্রদ্ধাসহ আত্মাতে অধ্যয়ন সমর্পণপূর্বক আত্মস্থান করেন তিনিই আমার কাছে শ্রেষ্ঠ ভক্ত। দ্বাদশ অধ্যায় ভগবান বললেন—যে সমস্ত ভক্ত আমার মধ্যে মনোনিবেশ করে শ্রদ্ধাপূর্বক আমার উপাসনা করে আমি তাদের শ্রেষ্ঠ বলে মনে করি<sup>১১</sup>। এর বিপরীত যে সমস্ত ব্যক্তি নিজের ইন্দ্রিয়সমূহে সম্পূর্ণরূপে সংযত করে মন এবং প্রাণীমাত্রের হিতের জন্য, সর্বত্র পূর্ণ অচিন্তা, অচল, কূটস্থ, অনির্দেশ্য, ধ্রুব, অক্ষর, নিরাকার রূপের চিন্তন করেন তিনি হলেন জ্ঞানযোগী<sup>১২</sup>। তিনি আরও বলেছেন জ্ঞানযোগে মানুষকে অন্তিম লক্ষেই নিত্য যায় কিন্তু এই অব্যক্তের উপাসনা অত্যন্ত কঠিন। সাধারণ মানুষের পক্ষে এই পন্থা দিয়ে চলা অত্যন্ত কঠিন<sup>১৩</sup>। তাই ভগবান জ্ঞানযোগ আলোচনা করে ভক্তিব্যোগের সম্পর্কে আলোচনা করতে গিয়ে বললেন যিনি অনন্য ভক্তিব্যোগের মাধ্যমে নির্মিত আমার ধ্যান এবং ভজনা করেন, যিনি তাঁর সমস্ত কাজ আমাকে সমর্পণ করে নিত্য সত্ত্ব রূপের উপাসনা করেন তিনি আমার কাছে প্রিয় ভক্ত<sup>১৪</sup>। গীতার অষ্টম অধ্যায়ে বলা হয়েছে—যে ব্যক্তি অনন্য চিন্তে আমাকে সদা সর্বদা স্মরণ করেন, সেই নিত্য নিরন্তর স্মরণশীল যোগীর কাছে আমি সহজে প্রাপ্ত হয়<sup>১৫</sup> এবং মদগতচিত্ত সেই সব প্রেমিক ভক্তকে আমি জন্মমৃত্যুরূপ চক্র থেকে উদ্ধার করি<sup>১৬</sup>। কিন্তু কোন ব্যক্তি তাঁর অনন্যচিত্ত আমাকে প্রাপ্ত করতে না পারলে তাহল তুমি নিজের মন এবং বুদ্ধির আমার উপর মনোনিবেশ করবে, একরূপ করলে তুমি নিশ্চয়ই আমার মধ্যেই নিবেশ করবে এবং এই মন এবং বুদ্ধিকে কিভাবে নিবেশ করতে হবে সেই বিষয়ে ভগবান বলছেন যে তুমি যদি আমাতে চিন্ত স্থির রাখতে ব্যর্থ হলে তখন অভ্যাসযোগে দ্বারা আমাকে প্রাপ্ত করার চেষ্টা করবে<sup>১৭</sup>। তারপরে বলছেন কেউ যদি অধ্যয়ন করতেও না পারো তাহলে মৎকর্ম পরায়ণ অর্থাৎ আমার জন্য কর্ম করার চেষ্টা না আত্মার জন্য (আমার জন্য) কর্ম করলে পরাসিদ্ধি লাভ করতে পারবে। তিনি আরও বললেন যিনি উপরোক্ত যোগের সাধনা করতে অক্ষম হন, তিনি মন-বুদ্ধি সর্বপূর্ণ সর্বকর্মের ফলত্যাগ করেও আমাকে প্রাপ্ত করতে পারবে<sup>১৮</sup>। তারপরে ভগবান কর্মফল ত্যাগের শ্রেষ্ঠত্ব ব্যাখ্যা করেছেন—

শ্রেয়ো হি জ্ঞানমভ্যাসাজ্জ্ঞানাদ্ভ্যানং বিশিষ্যতে।

ধ্যানাত্ কর্মফলত্যাগস্ত্যাগাত্মান্তিরনন্তরম্।।<sup>১৯</sup>

অর্থাৎ সমস্তবর্জিত অভ্যাসের থেকে জ্ঞান শ্রেষ্ঠ, জ্ঞান থেকে পরমেশ্বরকে ধ্যান শ্রেষ্ঠ। জ্ঞানযুক্ত ধ্যান থেকে কর্মফলত্যাগ শ্রেষ্ঠ। কারণ ত্যাগের দ্বারা তৎকাল পরম শক্তির অনুভব প্রাপ্ত করা যায়।

ভক্তের কাছে যেমন বিশ্বর সবার প্রিয়বস্তু ঠিক তেমনই ভগবানের কাছেও তার ভক্ত হলে কি কি লক্ষণ থাকে দরকার সেই লক্ষণগুলি বর্ণনা করছেন— যিনি সবকুণ্ডের প্রতি ঘেঘরহিত, সকলের প্রতি মিত্রভাব এবং সকলের করুণা বা দয়াভাব, যিনি আমার আমার ভাবহীন, নিরহঙ্কার এবং সুখ ও দুঃখে সমভাবাপন্ন, ক্ষমাশীল এবং যিনি সদা সঙ্কট, দেহ-ইন্দ্রিয়-মন যার সদা সংযত। যার মন ও বুদ্ধি আমাতে (আমাকে) অন্তর্নিহিত থাকে। যিনি আমাকে অর্থাৎ আত্মাকে ভালোবাসেন তিনি আমার কাছে অত্যন্ত প্রিয়<sup>১০</sup>। যিনি কাহাকেও উদ্ভিন্ন করেন না, যিনি কাহারও দ্বারা উদ্ভিন্ন হন না এবং যিনি হর্ষ ও বিষাদ, ভয় ও উদ্বেগ হইতে মুক্ত, তিনি আমার প্রিয় ভক্ত। যিনি নিঃস্পৃহ, বাহ্যভাস্তর শুচি, দক্ষ, পক্ষপাতশূন্য, ভয়হীন এবং সকাম হরের অনুষ্ঠান-ত্যাগী, তিনি আমার প্রিয় ভক্ত। যিনি ইষ্টপ্রাপ্তিতে হস্ত হন না, অনিষ্টপ্রাপ্তিতে ঘেঘ করেন না, প্রিয়বিরোগে শোক করেন না, অপ্ৰাপ্ত ইষ্টবস্তু হারান্না করেন না এবং শুভাশুভ সকল কর্ম পরিত্যাগ করিয়াছেন, তিনি আমার প্রিয় ভক্ত। যিনি আসক্তিহীন এবং শত্রু ও মিত্রে সমবুদ্ধিসম্পন্ন, যিনি মানে ও অপমানে বিচলিত হন না, যিনি শীতোষ্ণজনিত সুখে ও দুঃখে নির্বিকার, পরমাত্মাতে বিরুদ্ধি, প্রশংসায় আনন্দ ও নিন্দায় বিষাদশূন্য সুতরাং সংযতবাক্, সববিশ্বায় হৃদয়-লাভে সঙ্কট এবং নিদিষ্টবাসস্থানহীন তিনি আমার প্রিয় ভক্ত<sup>১১</sup>। যে-সকল হৃৎপরায়ণ ভক্ত এই মোক্ষদায়ক ধর্ম উক্তপ্রকারে শ্রদ্ধাসম্পন্ন হইয়া সাধন করেন, তাঁহারা আমার অতীব প্রিয়<sup>১২</sup>। ভক্তির ফল বর্ণনা করতে গিয়ে ভগবান বলেছেন যে ভক্তির দ্বারাই কেবল পরমেশ্বরকে পূর্ণরূপে জানা যায়। তাই এই প্রকার ভক্তি দ্বারা ভগবানকে যথাযথ জানলে ভগবদ্ ধামে প্রবেশ করা যায়<sup>১৩</sup>।

আমাদের ভারতীয় সনাতন পরম্পরায় ভারতীয় সংস্কৃতি বিশ্বের দরবার সর্বপ্রাচীন ছিল। কিন্তু সেই মহান পরম্পরা বিভিন্ন বৈদেশিকদের আগমনের পর থেকেই ধীরে ধীরে ধ্বংস হতে শুরু করেছিল এবং পরবর্তীকাল আমাদের সংস্কৃতিকে পরিবর্তন করে পাশ্চাত্য সংস্কৃতিকে প্রবেশ করিয়ে বৈদেশিকরা স্বাধীন ভারতবর্ষ দিয়ে দিল। এজন্যই বর্তমানে ভারতবর্ষ স্বাধীনতার এতবছর পরেও পাশ্চাত্য সংস্কৃতিকে অনুসরণ করে চলেছে। তাই এখন ভারতবর্ষের অধিকাংশ মানুষ নিমিত্তমাত্র পূজা অর্চনাকে ভক্তি বলে মনে করে। এখন সমাজে ভক্তির আধুনিক রূপ পাওয়া যায় যেন— পূজার আগে থেকে শুরু করে পূজা শেষ হওয়া পর্যন্ত নাচগান, মদমাংস খেতে ভগবানের পূজা অর্চনা করে নিজেকে ভগবানের ভক্ত বলে প্রচার করা। তাই এই শোধপ্রবন্ধে প্রাচীন ভারতীয় গ্রন্থ গীতার দ্বাদশ অধ্যায়ে বর্ণিত ভক্তিব্রোগ সম্পর্কে সংক্ষেপে সহজ সরল ভাষায় সাধারণ মানুষকে বোঝানোর উদ্দেশ্যে লেখা। গীতায় বর্ণিত ভক্তিব্রোগকে যদি মানুষ নিজের জীবনে প্রয়োগ করে এবং অন্যকে প্রয়োগ



করার জন্য প্রেরণা দেয় তাহলে সুন্দর সমাজ গড়ে ওঠার পাশাপাশি সমাজের সমস্ত  
মানুষও জন্মমৃত্যু চক্র থেকে সহজে মুক্তি পেয়ে মানবজীবনের পরমলক্ষ্যে  
করতে পারবে।

তথ্যসূত্র :

১. শ্রীমদ্ভগবদ্গীতা ১৮/৬৫।
২. এবং সত্যযুক্তা যে ভক্তাঙ্ঘ্র্যং পর্যুপাসতে।  
যে চাপ্যক্ষরমব্যক্তং তেমাং কে যোগবিস্তমাঃ।। শ্রীমদ্ভগবদ্গীতা ১২/১।
৩. শ্রীমদ্ভগবদ্গীতা ৬/৪৭।
৪. মধ্যাবেশ্য মনো যে মাং নিত্যযুক্তা উপাসতে।  
শ্রদ্ধয়া পরয়োপেতাঙ্স্তে মে যুক্ততমা মতাঃ।। শ্রীমদ্ভগবদ্গীতা ১২/২।
৫. যে তক্ষরমনির্দেশ্যমব্যক্তং পর্যুপাসতে।  
সর্বত্রগমচিংতাং চ কৃটস্থমচলং ধ্রুবম্।।  
সন্নিয়ম্যেন্দ্রিয়গ্রামং সর্বত্র সমবুদ্ধয়ঃ।  
তে প্রাপ্নুবন্তি মামেব সর্বভূতহিতে রতাঃ।। শ্রীমদ্ভগবদ্গীতা ১২/৩-৪।
৬. ক্লেশোধিকতরস্তেবামব্যক্তাসক্তচেতসাম্।  
অব্যক্তা হি গতির্দুঃখং দেহবদ্ধিরবাধ্যতে।। শ্রীমদ্ভগবদ্গীতা ১২/৫।
৭. যে তু সবাণি কমাণি ময়ি সন্ন্যাস্য মৎপরাঃ।  
অনন্যেনৈব যোগেন মাং ধ্যায়ন্ত উপাসতে।। শ্রীমদ্ভগবদ্গীতা ১২/৬।
৮. প্রয়াগকালে মনসাচলেন ভক্ত্যা যুক্তো যোগবলেন চৈব।  
দুবোর্মধ্যে প্রাণমাবেশ্য সম্যক্ স তং পরং পুরুষমুপৈতি নিবাম্।।  
শ্রীমদ্ভগবদ্গীতা ৮/১০।
৯. তেষামহং সমুজ্জ্বতা মৃত্যুসংসারসাগরাৎ।  
ভবামি নচিরাৎ পার্থ মধ্যাবেশিতচেতসাম্।। শ্রীমদ্ভগবদ্গীতা ১২/৭।
১০. ময্যেব মন আধৎস্ব ময়ি বুদ্ধিং নিবেশয়।  
নিবসিষ্যসি ময্যেব অত উদ্বৎ ন সংশয়ঃ।।  
অথ চিন্তং সমাধাতুং ন শক্ণোষি ময়ি স্থিরম্।  
অভ্যাসযোগেন ততো মামিচ্ছাপুং ধনঞ্জয়।। শ্রীমদ্ভগবদ্গীতা ১২/৮-৯।
১১. অভ্যাসেহপ্যাসমর্থোহসি মৎকর্মপরমো ভব।  
মদর্শমপি কমাণি কুর্বন্ সিদ্ধিমবাল্যসি।।  
অপৈতদপ্যাশক্তোহসি কর্তুং মদ্যোগমাপ্রিতঃ।  
সর্বকর্মফলত্যাগাং ততঃ কুরু যত্নান্ববান্।। শ্রীমদ্ভগবদ্গীতা ১২/১০-১১।



১২. শ্রীমদ্ভগবৎগীতা ১২/১২।  
 ১৩. যস্যৈ সর্বভূতানাং মৈত্র্যং করুণা এব চ।  
 ১৪. ঈর্ষ্যে নিরংকার্যে সমদুঃখসুখা ক্রমী।।  
 ১৫. সত্যং যোগী যতোহা নৃচনিশ্চয়া।  
 ১৬. যদনিশ্চয়মভ্যুজিহে মত্তস্য স মে প্রিয়ঃ।। শ্রীমদ্ভগবৎগীতা ১৮/১৩-১৪।  
 ১৭. যদ্যোযুক্তো লোকো লোকায়োযুক্তো চ যঃ।  
 ১৮. যদ্বৈবকরোহেগৌশুকো যঃ স চ মে প্রিয়ঃ।।  
 ১৯. জনপত্যং শুভির্মুক্ত উদাসীনো গতব্যথঃ।  
 ২০. সত্যস্তুপরিভ্যাগী যো মত্তস্য স মে প্রিয়ঃ।।  
 ২১. যো ন চ্যতি ন ঘেষ্টি ন শোচতি ন কাঙ্কতি।  
 ২২. সত্যস্তুপরিভ্যাগী ভক্তিমান্যঃ স মে প্রিয়ঃ।।  
 ২৩. যঃ শত্রৌ চ মিত্রে চ তথা মানাপমানয়োঃ।  
 ২৪. শত্রুজসুখদুঃখেষু সমঃ সস্ববিবর্জিতঃ।।  
 ২৫. হৃদনিশ্চয়ভূতিমৌনী সঙ্কটো যেন কেনচিত্।  
 ২৬. হৃদিক্রমঃ স্থিরমতিভক্তিমান্যে প্রিয়ো নরঃ।। শ্রীমদ্ভগবৎগীতা ১২/১৫-১৯।  
 ২৭. যে হু যম্যমিতমিদং যথোক্তং পর্যুপাসতে।  
 ২৮. শ্রবণা নংপরমা ভক্তাস্তেহৃদীব মে প্রিয়াঃ।। শ্রীমদ্ভগবৎগীতা ১২-২০।  
 ২৯. তস্য মমভিজানতি যাবান্যশাস্ত্রি তদ্বতঃ।  
 ৩০. তস্য মাং তদ্বতো জ্ঞাতা বিশতে তদনন্তরম্।। শ্রীমদ্ভগবৎগীতা ১৮/৫৫।



An International Registered Peer Reviewed Bilingual Research Journal

# SATRAACHEE

ISSN 2348-8425

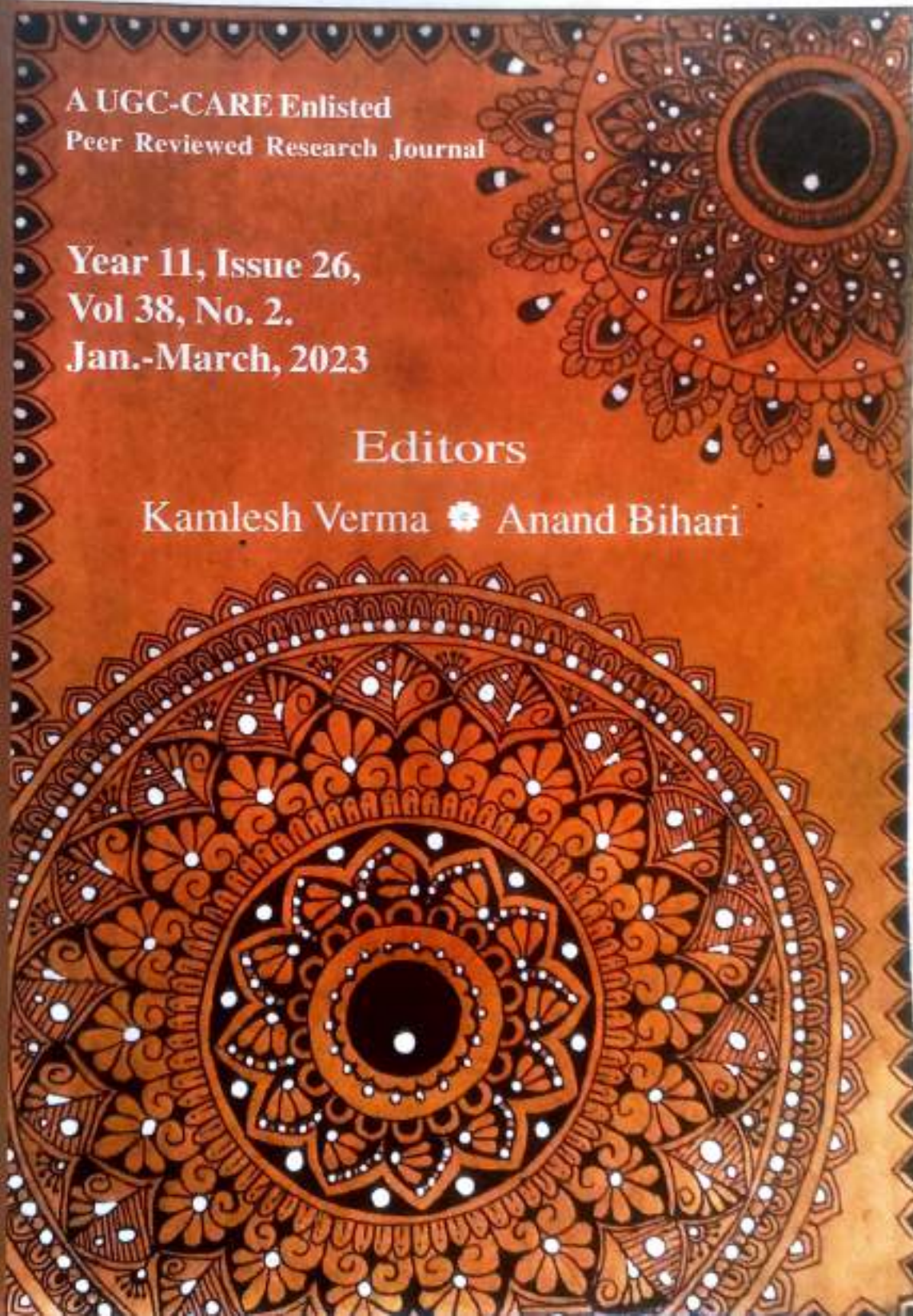
## सत्राची

A UGC-CARE Enlisted  
Peer Reviewed Research Journal

Year 11, Issue 26,  
Vol 38, No. 2.  
Jan.-March, 2023

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- 244 :: Drivers of Entrepreneurial Motivation in Kerala  
- Lekha K  
PS Devakumar
- 252 :: Artificial intelligence - The need of the age in all sectors  
- D. Anto Pravin Singh  
A. Thandauthapani
- 258 :: Measuring Outcomes of Microfinance Institutions - An Exploratory Study  
- Rajesha M
- 269 :: Effectiveness of Blended Modular Approaches in the Academic Achievement of Students at Post Graduate Level: An Experimental Study  
- Amarjit Deb  
Mithu Deb
- 280 :: Corporate Social Responsibility (CSR) and Social Entrepreneurship: Combining efforts for Sustainable Social Value Creation  
- Roshni Yeshawanth
- 288 :: Role of ADR Mechanism in Family Disputes, Issues and Challenges  
- Aryadas C.S  
Geni Philipose
- 298 :: Review of Working and Non-Working Women's Purchasing Behavior in Mangalore, with a Special Emphasis on Urban and Rural Women  
- Sowmya. B  
Sureshramana Mayya
- 310 :: Impact Of Nutritional Status Among School Going Adolescent Girls in Thoothukudi District  
- M.S Rubha
- 315 :: Reframing Teacher Education through Personalised Teacher Professional Development  
- Sreelekshmi V R  
D. Radharamanan Pillai
- 319 :: 'Study of the Impact of Professional Satisfaction on Work-Life Balance of the College Teachers'  
- B. Anisha  
C. L. Jeba Melvin
- 325 :: Factors Influencing the Consumer Preference of Preowned Luxury Cars  
- Akhil B S  
Anzer R N
- 336 :: Assessment of Service Quality of Public and Private Sector Banks During Post Covid Scenario  
- Anand K  
Sudheesh Kumar K
- 346 :: Emotional Intelligence and Employee Performance of non Banking Financial Institution in Kanyakumari District  
- S.G Sugitha  
E. Joseph Rubert  
C.K. Sunitha
- 353 :: Employee Job Satisfaction in Construction Companies  
- Vaishak S Nair
- 359 :: The Impact of Age on the Habit of Making Additional Investments for Retirement  
- Namdev M. Gawas  
Sheetal Mandrekar
- 373 :: Challenges of Rural Women's Higher Education with Special Reference to Purba Medinipur District, West Bengal  
- Sanjit Debnath





# Challenges of Rural Women's Higher Education with Special Reference to Purba Medinipur District, West Bengal

**Sanjit Debnath**

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## **Abstract**

Women's education is not only important for women's empowerment; it is also very important for the overall prosperity of any nation. Higher education brings imaginative power and enhances human intelligence to its practitioners and is considered a tool for development. But the status of higher education in India as well as in West Bengal did not meet the expectations of its citizens, particularly those of rural women's higher education. According to the 2011 Indian census, 48.7% of West Bengal's population is female; 48.8% of them live in rural areas, but the rural female literacy rate is 65.51%, compared to 80.98% in urban areas. So, the present study will examine the challenges faced by rural women in the Purba Medinipur District of West Bengal in pursuing their higher education. In doing so, the researcher adopted a multi-stage sampling technique for selecting the sample. And the data shows that the female students in the study area confront severe problems in terms of family challenges, social challenges, economic challenges, and institutional challenges.

## **Keywords :**

Literacy, Women's education, Higher education, social challenge, Economic challenge.

## **Introduction :**

One of the most important components of every nation's development is its human resources. To turn its citizens into resources for development, it is necessary to form a sustainable education policy and implement it for all the people of the country, irrespective of gender, race, caste, class, and religion. At the elementary level, education establishes a solid foundation for higher education for its students; on the other hand, higher education improves the efficiency of decision making, planning, boosting human intelligence, management skills, developing the imaginative power of its recipients, and so on. In today's

# प्राच्या PRĀCYĀ

*A Peer Reviewed (Refereed) Journal on Sanskrit & Related Studies*

**Volume - XV  
(PART - II)**

**ĀYURVEDAVIŚEṢĀMKAḤ  
आयुर्वेदविशेषांकः**

धन्योऽयं भारतो देशः धन्येयं सुरभारती ।  
उपासकाः तयं यत्र धन्या अहो परम्परा ॥



**DEPARTMENT OF SANSKRIT  
MDK Girls' College, Dibrugarh, Assam  
2023**

## CONTENTS

<u>Title of Articles</u>	<u>Page No.</u>
1. Āyurveda in Ancient and Medieval Period: A Historical Overview... <b>Sanjit Debnath</b>	9-17
2. Kerala Ayurvedic Tradition and Belief; A Historical Analysis ... <b>– Dr. Suresh J.</b>	18-25
3. A study on General Etiological Factors of Mānasa Vyādhi as per Āyurveda: <b>– Himadri Sarma</b>	26-37
4. सामान्यविषये आयुर्वेदशास्त्रवैशेषिकदर्शनयोः तुलनामूलकसमीक्षा <b>– Sharoda Mukherjee</b>	38-43
5. Fever in the Carakasamhitā – An Analysis <b>– Dr. Ratul Bujarbarua</b>	44-50
6. Āyurveda-Focussed Covid-19 Research: A Bibliometric Study <b>– Dr. Niraj Barua</b>	51-62
7. Raktachandanā: A critically endangered indigenous tree: A case study ... <b>– Dr. Bhagyashree S. Bhalwatkar – Dr. Pooja O. Pandey</b>	63-68
8. अथर्ववेदे वैषज्यविज्ञानम् <b>– Pavan Kumar Pandey</b>	69-79
9. Plants used as Home Remedies <b>– Dr. Nandita Sarmah</b>	80-88
10. The Qualities of a Good Paricāraka According to Āyurveda with ... <b>– Dr. Bagmita Sandilya</b>	89-98
11. The cosmeceutical value of Añjana as per the Aṣṭāṅgahṛdayasamhitā- A Study <b>– Dr. Rashmi Rekha Goswami</b>	99-104
12. A note on Bilva Tree with Special Reference to Āyurveda <b>– Dr. Arundhati Goswami</b>	105-117



# Āyurveda in Ancient and Medieval Period: A Historical Overview



Sanjit Debnath

*Āyurveda is one of the oldest and most holistic systems of medicine that originated in India. It has been practiced for thousands of years and continues to be a popular form of alternative medicine worldwide. In recent years, there has been a resurgence of interest in Ayurvedic medicine, both in India and around the world. This paper provides a historical overview of Āyurveda in ancient and medieval periods, highlighting its development, significance, and influence. The paper reviews the literature on Āyurveda, including primary and secondary sources, to trace its evolution over time. The study identifies the key features of Āyurveda during the ancient and medieval periods and highlights its relevance to contemporary healthcare practices. The paper concludes that Āyurveda has been an important part of Indian culture and has contributed significantly to the development of medicine and healthcare.*

*Keywords: Āyurveda, ancient period, medieval period, India, medicine, health.*

## Introduction:

Āyurveda is an ancient system of medicine that has its roots in the Indian subcontinent. It is believed to be one of the oldest forms of healthcare in the world, with a history that dates back thousands of years. The word "Āyurveda" is derived from two Sanskrit words, "Āyur" meaning life and "Veda" meaning knowledge (Prasad,2002). Thus, Āyurveda can be translated as the "knowledge of life." Āyurveda was also closely linked to the religious and philosophical beliefs of India (It was believed that the body, mind, and spirit were interconnected (Mukherjee, 2017), and the principles of Āyurveda were based on this belief. Āyurveda emphasized the importance of a healthy lifestyle, including diet, exercise, and meditation, as a way of maintaining overall health and well-being of an individual, and consider it as a comprehensive approach to healthy life. Āyurveda is based on the principles of natural healing, and it emphasizes the importance of maintaining a balance between mind, body, and spirit. It has been widely practiced in India and other parts of the world as an alternative form of medicine. But the journey of Ayurvedic tradition of medication from Vedic period to recent time is not horizontal at all. To trace the voyage of Ayurvedic medication in ancient and medieval periods, this paper provides a historical overview of Āyurveda.



# सुरधुनी Suradhuni



AN INTERNATIONAL SANSKRIT E-RESEARCH JOURNAL  
(PEER REVIEWED)

अन्तरराष्ट्रीयानुसन्धानात्मकसंस्कृतान्तर्जालिकपत्रिका (पुनरीक्षिता)

ISSN: 2583-4630

**Publisher:** World Sanskritshastra Association (WSSA), Ber Ballavpur, Kotwali,  
Near Water Tank & Health Centre, Word No.-16, Midnapore,  
Paschim Medinipur, West Bengal, India, Pin-721101  
(<http://www.suradhuni.in>)

## CERTIFICATE OF PUBLICATION

*This is to certify that the research article entitled*

“..... वैशेषिक-न्यायनये अवयवशब्दार्थविमर्शः .....”

authored by Prof./Dr./Mr./Mrs./Ms. .... **MR. NARUGOPAL DAS** .....

has been published in **SURADHUNI** – an International Sanskrit E-Research  
Journal (Peer Reviewed) in December, 2022, Vol. ....**2**....., Issue  
.....**1**....., Page No. ....**29**.... to ....**53**....

## प्रकाशनप्रमाणपत्रम्

प्रमाणीक्रियते यत् प्रो./ड./श्री/श्रीमती/कुमारी ..... **नाडुगोपालदासः** .....

महोदयस्य/महोदयायाः “..... वैशेषिक-न्यायनये अवयवशब्दार्थविमर्शः .....”

इत्यभिधेयं गवेषणापत्रं “सुरधुनी” इति अन्तरराष्ट्रीयानुसन्धानात्मकसंस्कृतान्तर्जालिकपत्रिका  
(पुनरीक्षिता) इत्यस्यां डिसेम्बर, २०२२ मासस्य .....**२**..... संख्यायाम् .....**१**.....  
तमे खण्डे .....**२९**..... पृष्ठाङ्कात् .....**५३**..... पृष्ठाङ्कं यावत् प्रकाशितं जातम्।

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शोधसंहिता संस्कृतम्

Peer Reviewed

**Journal of  
Fundamental &  
Comparative Research**

Vol. VIII, Issue 10,(III) 2021-2022

शोधसंहिता



A Bi-annual Interdisciplinary Research Journal of KKSU  
*Peer Reviewed Journal of Fundamental & Comparative Research*

**Volume- VIII, Issue 10 (III), 2021-2022**

**ISSN 2277-7067**

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**KAVIKULAGURU KALIDAS SANSKRIT UNIVERSITY  
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- 14 **EFFECT OF POMPAGE MYOFASCIAL RELEASE TECHNIQUE IN CASE OF NON-SPECIFIC CERVICAL SPINE PAIN WITH ICE COMPRESSION: A CASE REPORT**  
Dr. Devendra Kumar Trivedi, Dr. Tahzeeb Fatima, Dr. Minhaj Tahir 102-103
- 15 **गुरु गोविंद सिंह का शिक्षा दर्शन की वर्तमान में उपदेयता का अध्ययन**  
डॉ. कमल कान्त शर्मा 104-109
- 16 **बाल पोषण में परिवार की भूमिका**  
डॉ० सुनीता वर्मा 110-114
- 17 **FACTORS DETERMINING MEASUREMENT OF SERVICE QUALITY IN THE DOMESTIC AIRLINES: AN EMPIRICAL STUDY**  
Priyank Kumar Singh, Prof. H C Purohit 115-128
- 18 **PARENTING EDUCATION: A GREATEST IMPACT FOR CHILD DEVELOPMENT**  
Dr. N. Sanjoy Singh, Dr. Premlata Maisnam, Dr. N. Munindro Singh, H. Rakesh Singh 129-134
- 19 **मेडिकल पुस्तकालय एवं ई संसाधन: एक अध्ययन**  
डॉ संगीता सिंह, पायल चक्रवर्ती, वर्षा दुबे 135-142
- ✓ 20 **वर्तमानसमाजे कालिदासकृतकाव्यानां प्रासङ्गिकता**  
प्रसाद-रञ्जन-चक्रवर्ती 143-150
- 21 **ANALYSIS OF NURSING CARE QUALITY AND PATIENT SATISFACTION AMONG PARTURIENTS ADMITTED IN OBSTETRIC UNITS OF THE SAHARA HOSPITAL AT LUCKNOW**  
R.Padma Hepsiba, Dr.Tapti Bhattacharjee 151-163
- 22 **लोक-विश्वास (अथर्ववेदीय शौनक संहिता के विशेष सन्दर्भ में)**  
आशीष कुमार 164-174
- 23 **IMPACT OF LEARNING MEDIUM ON ACHIEVEMENT MOTIVATION AND ANXIETY AMONG SECONDARY SCHOOL STUDENTS**  
Mr. D. K. Kannor, Dr. Narendra V. Deshmukh 175-179
- 24 **A STUDY OF INNOVATION AND ECONOMIC GROWTH IN INDIA**  
Dr. Jadhav Ramdas Kalu 180-184



## वर्तमानसमाजे कालिदासकृतकाव्यानां प्रासङ्गिकता

प्रसाद-रञ्जन-चक्रवर्ती

Assistant Professor, Department of Sanskrit, Swarnamoyee Jogendranath Mahavidyalaya, Amdabad  
: Nandigram : Purba Medinipur : West Bengal : 721156

**संसारः** साहित्यदर्पणे यथा समाजचित्रस्य प्रतिफलनं भवति तद्वत् समाजदर्पणेऽपि साहित्यस्य प्रतिफलनं भवति।  
भवत् स्थास्यतः साहित्यं समाजश्च महीतले तावत् नियमोऽयं प्रचलिष्यति। कविवरेण कालिदासेन तत्कृतेषु काव्येषु  
रुचिचिदृष्टान्तानि प्रदर्शितानि येषां प्रासङ्गिकता इदानीन्तने समाजे अप्यस्ति। कविवरेण बृक्षपरिचर्या, पतिगृहे  
खवधोः आचरणम्, विहितकर्तव्यस्य सुष्ठु परिपालनञ्चेति एतान् विषयान्नाधिकृत्य तत्कृतेषु 'अभिज्ञानशकुन्तलम्',  
'मेघदूतम्', 'रघुवंशम्', 'मालविकाग्निमित्रम्' इति चतुर्षु काव्येषु ये दृष्टान्ताः प्रदर्शिताः तेषु केषाञ्चिद्  
प्रासङ्गिकता उपस्थाप्यतेऽस्मिन् प्रबन्धे।

**कुञ्चिशब्दाः** - मित्रम्, कर्तव्यम्, पूज्यपूजनम्, बृक्षपरिचर्या, प्रजापालनम्,

कालिदासस्य सर्वस्वम् अभिज्ञानशकुन्तलम्। मित्रं कीदृशं भवेद् किं वा तस्य कर्तव्यमित्यस्य सम्यक् बोधने  
नाटकस्यास्य प्रासङ्गिकता अस्ति। सखी नाम मित्रं वन्धुः वा। शस्त्रस्य विचारः यथा- यः आपदि विपदि च  
हर्षदा पार्श्वं तिष्ठति सैव यथार्थः वन्धुः।<sup>1</sup> शाकुन्तले शकुन्तलायाः सखीद्वयमास्ताम् अनसूया प्रियंवदा च।

१) ते सख्यौ शकुन्तलायाः दुर्दैवप्रशमनाय तस्याः भाग्यदेवतापूजने उद्युक्ते।<sup>2</sup>

२) वचनविन्यासेन दुष्यन्त-शकुन्तलयोर्मध्ये प्रेमपुष्टिबर्धनं ताभ्यामेव कृतम्।<sup>3</sup>

<sup>1</sup> "आतुरे व्यसने प्राप्ते दुर्भिक्षे शत्रुसंकटे।

राजद्वारे श्मशाने च यस्तिष्ठति सः वान्धवः ॥"

-पञ्चतन्त्रम्

<sup>2</sup> "णं सहीए सउन्दलाए सोऽग्गदेवआ अचवणीआ" (ननु सख्याः शकुन्तलायाः सौभाग्यदेवता  
अर्चनीया)  
-अभिज्ञानशकुन्तलम्, चतुर्थोऽङ्कः

<sup>3</sup> "सहि, ण जुतं अकिटसक्कारं अदिहिविसेसं विसज्जिअ सच्छन्दो गमणम्।" (सखि न  
युक्तमकृतसत्कारतिथिविशेषं विसृज्य स्वच्छन्दतो गमनम्।)  
-तत्रैव, प्रथमोऽङ्कः

"हला, ण दे जुतं गन्तुम्।" (हला न ते युक्तं गन्तुम्।)  
-तत्रैव, प्रथमोऽङ्कः





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