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- [1] Bhattacharyya, Nabarun, Herbert, Deys Publishing, Kolkata, ISBN 978-81-29-16-6, Pp 32-33, 1st ed., 2004.
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- [4] Socio-affective Neuroscience & Psychology 2013. 2013 Donald L. Hilton. This is an Open Access article distributed under the terms of the Creative Commons Attribution 3.0 License (<http://creativecommons.org/licenses/by/3.0/>).

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PREFACE

We are happy to announce that December 2023 issue of our UGC CARE listed journal has been published. My heartiest gratitude to our members for their endless support and hard work for which this has been possible. Earlier our journal was UGC enlisted but after CARE it was not included in the list. We have applied with maintaining all the protocols and fulfilling all the necessary requirements and at last we have been successful. Our motto from the very beginning was to create and place a good quality academic journal before the society. Also our goal was to publish high quality research papers and articles. We have successfully tried our level best without any compromise in this respect to achieve our goal. Our journal has been appreciated and recognized all over the world which is a great achievement to us. We hope we shall be carrying our responsibility in future. We have placed one more beautiful painting of renowned artist Basudev Mondal on the cover page of the journal as usual. The title of the painting is 'Speed'.

Basudev Mondal is Assistant Professor & H.O.D, Bengali at Dr. B. R. Ambedkar Satabarshiki Mahavidyalaya, Helencha, W.B. Apart from his teaching profession he is a renowned artist. He is one of the members of the board of associate editors of our journal. He has achieved various awards and honours in the field of art and painting. Some of the achievements are mentioned here:

Awards:

1. Triple Champion Medalist, Calcutta University.
2. Honour and Felicitation from Kolkata Theatre for Human Development at Rabindra Sadan Kolkata.
3. Bina Pani Samman from Barasat Suti Sanskriti Sanstha, 24 Pgs(N).
4. Honour and Felicitation from Bongaon Charukala Parsad, 24 Pgs(N).
5. Honour and Felicitation from Cultural Unit of Duttafulia, 24 Pgs(N).
6. Honour from 'DOUR' Bengali Magazine, 24 Pgs(N).
7. Honour from 'NOUKA' Bengali Magazine at Bangla Academy, Kolkata.
8. Honour from 'BALMIKI' Bengali Magazine at Bangla Academy, Kolkata.
9. Honour and Felicitation from 'AMAR EKUSHE' Bengali Magazine, 24 Pgs(N).
10. Honour and Felicitation from 'EKATA SANGHA' 24 Pgs(N).
11. West Bengal Govt. CRIRA O YUBAKALYAN BIVAG Award (2nd).
12. Certificate of Proficiency (1st) C. R. Roy Memorial Art Contest.

Solo Exhibition:

1. 2012 AJANTA ART GALLERY, Kolkata-124.
2. 2009 EKATA SANGHA, Mandapghata, 24 Pgs(N).
3. 2007 Barasat Suti Sanskriti Samsad, 24 Pgs(N).

Invited Exhibition:

1. 2012 All India Annual Paintings Exhibition, Ajanta Art Gallery, Kolkata-700124.
2. 2011 Boi Mela Exhibition Ashoknagar, 24 Pgs(N).
3. 2010 Charukala Prasad, Bongaon, 24 Pgs(N).
4. 2010 Book Fair Exhibition Ashoknagar, 24 Pgs(N).
5. 2009 Book Fair Exhibition Ashoknagar, 24 Pgs(N).
6. 2009 Charukala Parsad, Bongaon, 24 Pgs(N).

Group Exhibition:

1. 2012 All India Annual Painting Exhibition, Ajanta Art Gallery, Kolkata-700124.
2. 2011 Japan, Tokyo-CHUWA GALLERY, Tokyo-104-0061 Japan.
3. 2011 Birla Academy of Art and Culture.



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4. 2011 Academy of Fine Arts, Kolkata.
5. 2011 Kala Mela Academy of Fine Arts, Kolkata.
6. 2011 Bongaon Charukala Parsad, 24 Pgs(N).
7. 2010 Academy of Fine Arts, Kala Mela Kolkata.
8. 2010 Chemould Art Gallery, Kolkata.
9. 2010 Banipur Art Society, 24 Pgs(N).
10. 2009 Birla Academy of Art and Culture, Kolkata.
11. 2009 Barasat Sanskriti Sanstha, 24 Pgs(N).
12. 2009 Charukala Parsad, Bongaon, 24 Pgs(N).
13. 2009 Book Fair Exhibition Ashoknagar, 24 Pgs(N).

Our effort is to present a good quality journal before the society as a whole and before the intellectual community in particular.

Thank you.

**Dr. Barin Kumar Roy,
Editor-in-Chief, IJIRD.**



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GROWTH OF GREEN FINANCING IN EMERGING MARKETS AND STRATEGIES ADOPTED BY INDIA FOR GREEN FINANCING

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Abstract:

Climate change is a serious matter of concern facing by our planet over many years. Rising level of carbon emission from different economic activities of the world has increased folds of thought on our forehead. Green energy is altered by the conventional energy to fight this problem. Developed countries have already taken measures for implementation of green energy. The developing and underdeveloped countries also join hands with them to implement green energy. Climate finance or green finance help to finance the green project. Green bonds have been largely used by the emerging countries for green financing their green projects. The aim of the paper is to Study growth of green bonds in emerging markets and the framework and present position of green bonds and green banking in India.

Keywords: Climate finance, Green banking, Green bonds, Green energy, Green loan.

(Paper published on 1st December, 2023.)

Introduction:

From year 1840 the threat of climate change has been looming over the all inhabitants of earth. The effects of global warming are rising sea level, frequent natural disaster, melting of glacier. The carbon emission by industries and individuals using petroleum products, coal is the main reason of climate change and it is also helped by deforestation due to the increment of urbanization. To making low carbon economy or green economy traditional energy system must be replaced by renewable energy system. A huge fund i.e., green fund is required for this purpose. The idea of green finance was developed in the year 1970 but it was emerged as a part sustainability development in 2015 with sustainability development goals and Paris agreement, legally binding international treaty between 196 parties who attended united nations conference on climate change (COP 21) held in Paris. The financial arrangements that are definite to the use for projects that are environmentally sustainable or projects that adopt the aspects of climate change, is regarded as Green- finance. Green financing is also termed as sustainable finance, climate finance and environmental finance. Green finance is providing its product and services to promote environmentally responsible



investments and stimulate low carbon technologies, projects, industries and business by financial activities like Investments, Lending decision, Risk management etc. The term green finance has gained a lot of attention across the world in the past few years. The idea gets its first mention in the United Nations document at the UN Conference on sustainable development also known as Rio+20, 2012. Green finance distributes economic and environmental advantages to everybody. It widens availability of environmentally-friendly goods and services to individuals and enterprises, equalizing the transition to a low-carbon society, resulting in more socially inclusive growth. Activities of green finance results in a 'great green multiplier' effect in which both the economy and the environment gain, making it a win-win situation for everyone. Green bonds, sustainability bonds, social bonds, green loan, sustainability linked loans are financial instruments available for green finance.

Green bond is a type of investment instrument for the investors which provide return at a fixed rate on their investment over a period and amount of money collected from issuance of green bonds is used for funding climate and environmental projects. As the green bonds are linked with assets of the issuance entity and supported by the balance sheet of that entity, the green bonds have credit rating like other debt instruments. The worldwide green bonds market was valued at USD 436.0 billion in 2022 and is forecasted to grow at a CAGR of 9.7% from 2022 to 2030. The worldwide green bonds market is expected to touch the landmark of USD 914.4 billion by 2030.

Review of Literature:

Biswas (2011) tried to punctuate the major benefits, defying challenges, strategic aspects of Green Banking. It has also shown the position of Indian banks as far as Green Banking renunciation is concerned. It is set up that there has not been important action in this regard by the banks in India, though they play an active part in India's arising frugality. Banks should go green and play a pro-active part to take environmental and ecological aspects as part of their lending principle, which would force diligence to go for commanded investment for environmental operation, use of applicable technologies and operation systems. They must be more oral about the essential green value proposition.

Sahoo, Singh and Jain(2016) tried to dissect the relinquishment of green banking products among guests with different age groups. ANOVA and post hoc tests are applied for assaying the objects. Findings of the exploration study explained that there was significant difference in the operation of green banking products across colourful age groups



individualities, as youthful generation was more inclined towards green banking products than adulthood groups. thus, further mindfulness was need to be created among the middle and elderly age groups individualities.

Wang and Zhi (2016) reviewed into the present circumstances of green finance in the field of renewable energy and finds out some shortages. They dedicated attention to development of market mechanism and formulation of policies. By disclosing the internal contradictions between green finance and environmental protection, they recommended solutions intrinsically for better achievement of ecological balance.

Clapp and Pillai(2017) banded in their paper that green bonds apply environmental labelling to traditional bonds for financing green and climate systems. The green bond request has grown fleetly in recent times, and shows pledge for incubating climate action. Multilateral development banks have been most active in issuing green bonds to support their terrain and development docket, but pots and cosmopolises are also beginning to issue green bonds. To what extent can green bonds give finance for climate action in developing countries? Arising husbandry are getting more active in the green bond request. The case of Johannesburg, the first megacity in an arising country to issue a green bond, is examined for implicit replication. Challenges and openings relating to green bond demonstration and governance, de-risking, and green integrity are also explored.

Mohd and Kaushal (2018) set up that in recent times of technological progress the worldwide frugality is undermined from three major challenges environmental change, vitality limitations and plutocrat related exigency. This is on account of fiscal enhancement conveys alongside itself charges to the countries in the shape of environmental declination. Green finance is the result for negotiating contract between the frugality and nature. Green finance is considered as the financial help for green development, which decreases ozone depleting substance discharges and air impurity effluences altogether. Green fund in horticulture, green structures, green security and other green conditioning should increase for the financial enhancement of the nation. In this paper an bid has been made to explore the being literature on the green finance and unborn compass of green finance in India.

Chen, Siddik, Zheng and Masukujjaman(2022) linked the impact of GB practices on banks ' environmental performance and sources of green backing of private marketable banks(



PCBs) in Bangladesh. Using a check system, the primary data were attained from across-sectional sample of 322 banking workers of PCBs in Bangladesh. In order to identify the crucial connections being between the study variables, structural equation modeling (SEM) approach was employed. The empirical findings indicated that banks' workers, daily-operations, and policy-related GB practices have significant positive goods on green banking, negative to banks' client-related GB practice, which wasn't statistically significant. also, banks' green design banking displayed a strong and positive influence on banks' environmental performance. also, banks' daily operation and policy-affiliated practices of GB were observed to have significant impacts on banks' environmental performances, in discrepancy to banks' hand and client-related GB practices. thus, major policy counteraccusations and directions for unborn exploration in the concerned area are banded. Bansal, Gupta and Maurya(2023) linked different grueling factors impacting the development of green bond requests in India and suggests suitable strategies to overcome these challenges. The vital factors accountable for the growth of green bond requests were linked by an expansive literature review and critical examination through experts' opinion. The stylish worst system(BWM) was used to rank challenges and strategies grounded on the precedence(or weights) handed by the assiduity experts. The results specify that the lack of puredanger profiling and judicial support involved in green bonds are the most pivotal challenges for the Indian green bond request, followed by lack of request knowledge and lack of demand among investors for green bonds. Among the strategies, standardization surfaced as the most notable to promote green bond in arising husbandry. This study extends the literature by furnishing comprehensive perceptivity into the challenges confining the growth of the green bond request and develops a detailed understanding of the different strategies to overcome those challenges. This study also offers a framework for policymakers to reshuffle the green bond request and to help satisfy India's commitment to the Paris Agreement.

Objectives of the Study:

- Study growth of green bonds in emerging markets
- Study the framework and present position of green bonds and green banking in India.



Research Methodology:

Secondary data are used for the study and the data are collected from IFC, Bloomberg, Environmental Finance, Climate Bonds Initiative, Green bond information report, NTPC Limited, IRDEA, Yes Bank. Percentile has been used to calculate the increase of issue of green bonds over the years of study and period of study has been selected from year 2012-2021 on basis of availability of data required for the study.

Analysis and Interpretation:

Growth of green bonds in emerging markets of world

Table -1

Country	Green bond issuance in 2012-18(\$ million)	Green bond issuance in 2021(\$ million)	% increase
China	108563	221267	103.8144
India	7702	17750	130.4596
Mexico	7027	3599	-48.7833
Brazil	4167	10207	144.9484
Poland	2177	7374	238.723
Indonesia	1952	5462	179.8156
South Africa	1438	2828	96.66203
Malaysia	979	1838	87.74259
Chile	946	13584	1335.941
Lithuania	719	822	14.32545
Argentina	610	1165	90.98361
UEA	587	2554	335.0937
Philippines	526	2946	460.076
Costa Rica	500	504	0.8
Colombia	459	1067	132.4619
Morocco	356	356	0
Peru	234	1686	620.5128
Thailand	213	2778	1204.225
Latvia	137	314	129.1971
Uruguay	108	361	234.2593
Slovenia	100	100	0



Lebanon	60	60	0
Estonia	56	56	0
Fiji	49	48	-2.04082
Nigeria	30	155	416.6667
Vietnam	27	227	740.7407
Sychellas	15	15	0

Source: IFC, Bloomberg, Environmental Finance, Climate Bonds Initiative.

The above table shows the increase of issuance of green bonds for funding the green projects in some developing countries all over the world. China had issued highest green bonds as per the data provided by IFC. And the second position has held by India. Chile and Brazil, South American countries were hold the third and fourth position in issue of green bonds. Thailand has shown the highest increase (1204.225%) in the issuance of green bonds from year 2012-18 and year 2021. In Costa Rica, Morocco, Slovenia, Lebanon, Estonia there were no change in issuance of green bonds from year 2012-18 to 2021. In Mexico and Fiji there were decrease in issuance of green bonds from year 2012-18 to 2021. In Vietnam there were 740%, Peru (620%) and Philippines (460%) and Nigeria(416%) increase in issuance of green bonds from year 2012-18 to 2021.

Green bonds in India:

SEBI issued a concept paper in 2015 highlighting the framework or the guidelines for the issuance of green bonds and their ultimate usage and reporting. According to these guidelines, green bonds are governed by four principles they are

1. Use of proceeds collected from issuance of green bonds in green projects
2. Project evaluation and selection process must be transparent
3. Proceeds collected from issuance of green bonds must be managed transparently
4. Reporting of the usage of the funds and details of the projects as per the guidelines issued by SEBI



Appoint of a third-party reviewer or a certifier for the evaluation of a project it is not mandatory as per SEBI guidelines regarding the issuance of green bonds in India. The exposé of the fact is to be made only after making such an appointment. Other requirements of SEBI guidelines firmly stated about reporting of the utilization of the funds as well as the appointment of an external auditor's verification. On basis of SEBI guidelines various companies of India have issued green bonds to fund the green project investment, details of them will be discussed in the following discussion

Table 2: showing the green bonds issued by the different companies of India

Issuer	Amount	Issued Date	Tenure	Sector Exposure	Credit Rating
NTPC	Rs. 20bn	Aug-16	5 years	Energy	BBB (Fitch)
IREDA	Rs. 19.5bn	Sep-17	5 years	Energy	GB1 – green bond rating; Baa3 – issuer rating (Moody's)
Yes Bank	Rs. 10bn	Feb-15	10 years	Energy	AA+ (CARE and ICRA)
IREDA	Rs. 7bn	Mar-17	10 years	Energy	AA+ (ICRA)
CLP Wind Farms	Rs. 6bn	Sep-15	3, 4 and 5 years	Energy	AA (India Rating and Research)
PNB Housing Finance	Rs. 5bn	Apr-16	NA	Buildings	NA
Hero Future Energies	Rs. 3bn	Feb-16	3 and 6 years	Energy	NA; CBI Certified

The above table is showing the green bonds issued by the different Indian companies. National Thermal Power Corporation (NTPC) had issued green bond amounting to Rs. 20 bn



for investment in the solar and wind energy. The capital invested in four projects and as a result of preparing the project there will be reductions in carbon emission

Sl. no	Name of the project	capacity	Project type	Project location	Projected emissions reductions (co ₂ /year)
1	Solar PV project in Anantpur district,	250	solar	Andhra Pradesh	401661
2	Solar PV project in Bhadla district,	250	solar	Rajasthan	439714
3	Solar PV project in Mandsaur district,	250	solar	Madhya Pradesh	401661
4	Rojmal Wind Project in Gujarat	50	wind	Gujrat	103586

Source: Green bond information report, NTPC Limited

IRDEA had collected ₹19.5 billion from issue of green bonds and invested the money on various green project investment the details are given in the table below

Sectors of green investment	Amount in INR million
Rooftop Photovoltaics	60.68
Solar	3989.33
Solar Photovoltaics	2442.59
Solar Photovoltaics manufacturing	1182.35
Stern to discoms for solar/wind sector*	2470.83
wind	9270.76
Grand total	19416.5

Source: 4th Annual Report for FY 21-22 on Green Bonds of IRDEA

Yes bank had collected Rs. 10 billion from issue of green bond and invested the amount in wind and solar energy project in different state of Southern, Western and Central Indian states. The project helped to reduce the emissions of carbon dioxide, sulphur dioxide and oxides of nitrogensand there is a sharp reduction in usage of fossils fuel in those states Southern, Western and Central India.



Reserve Bank of India has auctioned first autonomous five- time green bonds at a pasteboard rate of 7.1 amounting to Rs. 4000 crore and 10 time's green bonds at a pasteboard rate of 7.29 which is also amounting to Rs. 4000 crores. The RBI has also made it obligatory to accept green deposits by banks and deposit taking non-banking financial companies (NBFC). The proceeds of green deposit of banks and NBFCs will be invested in nine sectors like sustainable operation of living natural coffers and land use, terrestrial and submarine biodiversity conservation, renewable energy, energy effectiveness, clean transportation, climate change adaptation, sustainable water and waste operation, pollution forestalment and control, green structures.

Green banking in India:

The conception of herbage was developed in the western countries. Green banking was formally started in 2003 with a view to save and cover the terrain. The Ambit principles were espoused by Citigroup Inc, The Royal Bank of Scotland, Westpac Banking Corporation. For promoting terrain friendly practices and reducing carbon footmark from banking conditioning green banking is demanded. Using online banking rather of banking at the branch. Paying bills online rather of posting them. Opening- up current deposit and plutocrat request accounts at online banks, rather of large multi branch banks. The Reserve Bank of India document named Policy terrain dated 8th November, 2010 includes on Pages No. 56 and 57 a reference to Green Banking and Green IT enterprise for banks in India. While offering several simple suggestions for rehearsing green banking arrangements, the specific enterprise taken by banks in India are – IndusInd Bank introducing solar powered ATMs, SBI espousing green banking policy and immolation green home loans, Union Bank of India's energy effectiveness measures, IDBI Banks class in National Action Plan on Climate Change, ICICI Banks Corporate Environmental Stewardship enterprise and also Clean Technology enterprise, YES Banks community development enterprise, ABN-AMRO Banks(now Royal Bank of Scotland) launching of Indian Sustainable Development Fund as also the part played by RBI in its CSR enterprise(Dipika, 2015). The banks of India have started to green home bank loans to the customer for constructing green buildings which are certified by Leadership in Energy and Environmental Design(LEED) and Indian Green Building Council(IGBC), installation of alternative energy set up, biogas plant, sanitary latrines. In such loan the rate of interest is very low and the loans are medium term loan. Also the banks provides green



mortgage to the owner of the properties which are energy efficient. Green insurances are available at the services provided by the green banks of India. Green insurance arrangements are those systems which provide higher risk cover at a low premium for green products which minimizes the impact on climate, fostering good corporate behavior.

Conclusion:

It can be said as conclusion of the study that there was massive increase of issue of green bonds in the emerging countries of the world like China, India, Vietnam, Peru, Thailand, Fiji, Philippines. We can say that developing countries are not far behind their developed counterpart in the process of green project which is necessary for saving the world from frequently happening natural disaster, global warming. India has also adopted green banking strategy to reduce the use of paper and saving trees. Most of the Indian companies have issued green bonds to instal their green projects to confront with the threat of climate change and global warming.

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জরন্বীমাংসক মতে লৌকিক বাক্য প্রতীত শাব্দবোধের অপ্রমাত্ত সিদ্ধি ও তার খণ্ডন-একটি আলোচনা

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Abstract:

ভারতীয় দর্শনে শব্দের স্বরূপ, তদ্ উৎপত্তি ও তদপ্রামাণ্য ও অপ্রামাণ্য বিষয়ে দার্শনিকগণের মধ্যে মতানৈক্য সুপ্রাচীনকাল থেকে পরিলক্ষিত হলেও শব্দজন্য যে বোধ উৎপন্ন বা প্রতীত হয়, তার প্রামাণ্য বা অপ্রামাণ্য বিষয়ে শাব্দিক, চার্বাক, বৌদ্ধ, মীমাংসক, বৈশেষিক, নৈয়ায়িক, বৈদান্তিকপ্রভৃতি দার্শনিক সম্প্রদায় স্ব স্ব মত প্রতিষ্ঠাপনলক্ষে যুক্তিজাল বিস্তার করেছেন, তা ভারতীয় দর্শনে এক গুরুত্বপূর্ণ স্থান অধিকার করেছে। বৌদ্ধ দার্শনিকগণ, বৈশেষিক দার্শনিকগণ শাব্দবোধকে অনুমিতি প্রমিতির অন্তর্গত বলে মনে করলেও সাংখ্য, মীমাংসক, বৈদান্তিক, নৈয়ায়িক দার্শনিক সম্প্রদায় ঐ বোধকে অনুমিত্যাদি ভিন্ন স্বতন্ত্র প্রমিতিরূপে গণ্য করেছেন। অবশ্য উল্লেখনীয় যে, শাব্দবোধের স্বতন্ত্র প্রমিতিরূপে স্বীকারকারী দার্শনিক সম্প্রদায় তাঁদের দর্শনতন্ত্রের মৌলিক সিদ্ধান্তানুসারে শাব্দবোধ-কে প্রত্যক্ষানুমিত্যাদি ভিন্ন স্বতন্ত্র প্রমিতির মর্যদা দেওয়ার ফলে, তাঁদের প্রদত্ত যুক্তিসমূহের মধ্যে ভিন্নতা পরিলক্ষিত হয়েছে। জরন্বীমাংসক মতে শাব্দবোধের অপ্রমাত্ত সিদ্ধি ও তা খণ্ডন বিষয়ক আলোচনা বর্তমান প্রবন্ধের উপস্থাপিতব্য বিষয়। জরন্বীমাংসক বা প্রভাকর মীমাংসক সম্প্রদায় বৈদিক বাক্য থেকে প্রতীত বোধকে স্বতন্ত্র প্রমিতিরূপে স্বীকার করলেও লৌকিক বাক্য থেকে প্রতীয়মান বাক্যার্থবোধকে স্বতন্ত্র প্রমিতির মর্যদা দেননি। ফলতঃ বর্তমান প্রবন্ধে প্রভাকরগণ যেভাবে লৌকিক বাক্য প্রতীত বোধের অপ্রমাত্ত সিদ্ধি করেছেন তা যেমন আলোচিত হবে তেমনি নৈয়ায়িকগণ যেভাবে তার খণ্ডন করেছেন তাও আলোচিত হবে। প্রভাকর মীমাংসকগণ এর মতে লৌকিক বাক্য বহুব্যাভিচার দ্বারা আক্রান্ত হওয়ায়, লৌকিক বাক্য



শ্রবণান্তর অনুমান দ্বারা উক্ত ব্যভিচার শব্দের নিবৃত্তান্তর বাক্যার্থের নিশ্চয় হয়, তদ্ অন্তর সেই বাক্য অনুবাদরূপে অর্থের অভিধান করে তৎ তৎ বাক্য থেকে বাক্যার্থবোধ প্রতীত হয়। সুতরাং প্রভাকর মতে বাক্যার্থবোধ বা শব্দবোধ অনুবাদ অর্থাৎ গৃহিতগ্রাহী হওয়ায় তা প্রমা হতে পারে না ; তা অপ্রমা। প্রভাকর মতে অগৃহীতগ্রাহী জ্ঞানই প্রমা হয়ে থাকে। প্রভাকরগণ আকাঙ্ক্ষাদি জ্ঞানের ন্যায় আশৌক্তত্ব নিশ্চয়কে শব্দবোধের কারণরূপে স্বীকার করেন। উক্ত আশৌক্তত্ব নিশ্চয় হল বাক্যার্থ বিষয়ে যথার্থ জ্ঞানবান পুরুষ কর্তৃক উচ্চারিতত্ব। শব্দবোধের প্রতি উক্ত আশৌক্তত্ব নিশ্চয়ের কারণতা স্বীকার্য হওয়ার ফলে লৌকিক বাক্য থেকে প্রতীত বাক্যার্থবোধের পূর্বেই তদ্ বোধ বিষয়ীভূত জ্ঞান পূর্বেই থাকে বলে বাক্যার্থ বোধ জ্ঞাত বিষয়ের জ্ঞাপন করে। ফলতঃ তা প্রমা হতে পারে না। নৈয়ায়িকগণ অবশ্য প্রভাকরগণের বক্তব্য সঙ্গত বলে মনে করেন না, কেননা, বাক্যার্থবোধের পূর্বে উক্ত আশৌক্তত্ব নিশ্চয় যেমন নিয়মিত অপেক্ষিত নয়, তেমনি ঐরূপ নিশ্চয়ত্বের সংশয় কিংবা অভাব থাকলেও যথার্থ শব্দবোধ হয়ে থাকে। সুতরাং ব্যভিচার বশতঃ আশৌক্তত্ব নিশ্চয়কে শব্দবোধের কারণরূপে স্বীকার করা যায় না। তাছাড়া, প্রভাকরগণ যদি শব্দবোধের প্রতি আশৌক্তত্ব নিশ্চয়ের কারণতা খণ্ডিত হওয়ার কারণে একপদার্থবিশিষ্ট অপরপদার্থ বোধ পরত্বের ইচ্ছায় উচ্চারিতত্বরূপ তাৎপর্য জ্ঞানকে শব্দবোধের কারণ রূপে স্বীকার করে ঐ প্রকার বোধের অপ্রমাদ সিদ্ধি করতে চান, তাহলে তাও সঙ্গত হবে না, কেননা, “ঘটম্” ইত্যাদি বাক্য স্থলে ঘটপ্রকারক কর্মতাবিশেষ্যক বাক্যার্থবোধ পরত্বাব ইচ্ছায় উচ্চারিতত্বরূপ তাৎপর্য জ্ঞানের নিশ্চয় থাকলে কিংবা উক্ত বাক্যে প্রমেয়ত্বাদিরূপে গৃহীত ঘট, কর্মত্বকে গ্রহণ করে প্রমেয়টি ঘটীয় কিংবা কর্মত্বটি প্রমেয়সম্বন্ধীয়-এরূপ বোধ পরত্বের নিশ্চয় কালে ঘটবিশিষ্ট কর্মত্ববোধ পরত্বের নিশ্চয় থাকায় শব্দবোধের আপত্তি হবে। কিন্তু এরূপ বোধপরত্বের নিশ্চয় থেকে শব্দবোধ উৎপন্ন হয় না। সেকারণে তাৎপর্য জ্ঞানকে শব্দবোধের কারণরূপে গ্রহণ করে প্রভাকরগণ যেভাবে শব্দবোধের অপ্রমাদ সিদ্ধি করেছেন তা সঙ্গত নয়।

শব্দসংকেতঃ- শব্দবোধের অপ্রমাদ সিদ্ধি, বাক্যার্থবোধ, প্রভাকর দর্শনে শব্দবোধ ইত্যাদি।

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ভূমিকা- ভারতীয় দর্শনে শব্দের স্বরূপ, তদ্ উৎপত্তি ও তদপ্রামাণ্য ও অপ্রামাণ্য বিষয়ে দার্শনিকগণের মধ্যে মতানৈক্য সুপ্রাচীনকাল থেকে পরিলক্ষিত হলেও শব্দজন্য যে বোধ উৎপন্ন বা প্রতীত হয়, তার প্রামাণ্য বা অপ্রামাণ্য বিষয়ে শাব্দিক, চার্বাক, বৌদ্ধ, মীমাংসক, বৈশেষিক, নৈয়ায়িক, বৈদান্তিকপ্রভৃতি দার্শনিক সম্প্রদায় স্ব স্ব মত প্রতিষ্ঠাপলক্ষে যুক্তিজাল বিস্তার করেছেন, তা ভারতীয় দর্শনে এক গুরুত্বপূর্ণ স্থান অধিকার করেছে। বৌদ্ধ দার্শনিকগণ, বৈশেষিক দার্শনিকগণ শব্দবোধকে অনুমিতি প্রমিতির অন্তর্গত বলে মনে করলেও সাংখ্য, মীমাংসক, বৈদান্তিক, নৈয়ায়িক দার্শনিক সম্প্রদায় ঐ বোধকে অনুমিত্যাদি ভিন্ন স্বতন্ত্র প্রমিতিরূপে গণ্য করেছেন। অবশ্য উল্লেখনীয় যে, শব্দবোধের স্বতন্ত্র প্রমিতিরূপে স্বীকারকারী দার্শনিক সম্প্রদায় তাঁদের দর্শনতন্ত্রের মৌলিক সিদ্ধান্তানুসারে শব্দবোধকে প্রত্যক্ষানুমিত্যাদি ভিন্ন স্বতন্ত্র প্রমিতির মর্যদা দেওয়ার ফলে, তাঁদের প্রদত্ত যুক্তিসমূহের মধ্যে ভিন্নতা পরিলক্ষিত হয়েছে। জরনমীমাংসক মতে শব্দবোধের অপ্রমাত্ত্ব সিদ্ধি ও তা খণ্ডন বিষয়ক আলোচনা বর্তমান প্রবন্ধের উপস্থাপিতব্য বিষয়। জরনমীমাংসক বা প্রভাকর মীমাংসক সম্প্রদায় বৈদিক বাক্য থেকে প্রতীত বোধকে স্বতন্ত্র প্রমিতিরূপে স্বীকার করলেও লৌকিক বাক্য থেকে প্রতীয়মান বাক্যার্থবোধকে স্বতন্ত্র প্রমিতির মর্যদা দেননি। ফলতঃ বর্তমান প্রবন্ধে প্রভাকরগণ যেভাবে লৌকিক বাক্য প্রতীত বোধের অপ্রমাত্ত্ব সিদ্ধি করেছেন তা যেমন আলোচিত হবে তেমনি নৈয়ায়িকগণ যেভাবে তার খণ্ডন করেছেন তাও আলচিত হবে। প্রভাকর মীমাংসকগণ এর মতে



লৌকিক বাক্য বহুব্যভিচার দ্বারা আক্রান্ত হওয়ায়, লৌকিক বাক্য শবণান্তর অনুমান দ্বারা উক্ত ব্যভিচার শঙ্কার নিবৃত্ত্যন্তর বাক্যার্থের নিশ্চয় হয়, তদ্ অন্তর সেই বাক্য অনুবাদরূপে অর্থের অভিধান করে তৎ তৎ বাক্য থেকে বাক্যার্থবোধ প্রতীত হয়। সুতরাং প্রভাকর মতে বাক্যার্থবোধ বা শব্দবোধ অনুবাদ অর্থাৎ গৃহীতগ্রাহী হওয়ায় তা প্রমা হতে পারে না ; তা অপ্রমা। প্রভাকর মতে অগৃহীতগ্রাহী জ্ঞানই প্রমা হয়ে থাকে। প্রভাকরগণ আকাঙ্ক্ষাদি জ্ঞানের ন্যায় আণ্ডোক্তত্ব নিশ্চয়কে শব্দবোধের কারণরূপে স্বীকার করেন। উক্ত আণ্ডোক্তত্ব নিশ্চয় হল বাক্যার্থ বিষয়ে যথার্থ জ্ঞানবান পুরুষ কর্তৃক উচ্চারিতত্ব। শব্দবোধের প্রতি উক্ত আণ্ডোক্তত্ব নিশ্চয়ের কারণতা স্বীকার্য হওয়ার ফলে লৌকিক বাক্য থেকে প্রতীত বাক্যার্থবোধের পূর্বেই তদ্ বোধ বিষয়ীভূত জ্ঞান পূর্বেই থাকে বলে বাক্যার্থ বোধ জ্ঞাত বিষয়ের জ্ঞাপন করে। ফলতঃ তা প্রমা হতে পারে না। নৈয়ায়িকগণ অবশ্য প্রভাকরগণের বক্তব্য সঙ্গত বলে মনে করেন না, কেননা, বাক্যার্থবোধের পূর্বে উক্ত আণ্ডোক্তত্ব নিশ্চয় যেমন নিয়মিত অপেক্ষিত নয়, তেমনি ঐরূপ নিশ্চয়ত্বের সংশয় কিংবা অভাব থাকলেও যথার্থ শব্দবোধ হয়ে থাকে। সুতরাং ব্যভিচার বশতঃ আণ্ডোক্তত্ব নিশ্চয়কে শব্দবোধের কারণরূপে স্বীকার করা যায় না। তাছাড়া, প্রভাকরগণ যদি শব্দবোধের প্রতি আণ্ডোক্তত্ব নিশ্চয়ের কারণতা খণ্ডিত হওয়ার কারণে একপদার্থবিশিষ্ট অপরপদার্থ বোধ পরত্বের ইচ্ছায় উচ্চারিতত্বরূপ তাৎপর্য জ্ঞানকে শব্দবোধের কারণ রূপে স্বীকার করে ঐ প্রকার বোধের অপ্রমাত্ত্ব সিদ্ধি করতে চান, তাহলে তাও সঙ্গত হবে না, কেননা,



“ঘটম্” ইত্যাদি বাক্য স্থলে ঘটপ্রকারক কর্মতাবিশেষ্যক বাক্যার্থবোধ পরত্বভাব ইচ্ছায় উচ্চারিতভূরূপ তাৎপর্য জ্ঞানের নিশ্চয় থাকলে কিংবা উক্ত বাক্যে প্রমেয়ত্বাদিরূপে গৃহীত ঘট, কর্মত্বকে গ্রহণ করে প্রমেয়টি ঘটীয় কিংবা কর্মত্বটি প্রমেয়সম্বন্ধীয়- এরূপ বোধ পরত্বের নিশ্চয় কালে ঘটবিশিষ্ট কর্মত্ববোধ পরত্বের নিশ্চয় থাকায় শব্দবোধের আপত্তি হবে। কিন্তু এরূপ বোধপরত্বের নিশ্চয়থেকে শব্দবোধ উৎপন্ন হয় না।^১সে কারণে তাৎপর্য জ্ঞানকে শব্দবোধের কারণরূপে গ্রহণ করে প্রভাকরণ যেনাবে শব্দবোধের অপ্রমাত্ব সিদ্ধি করেছেন তা সঙ্গত নয়।

বিশ্লেষণঃ-বাক্যান্তর্গত পদ সমূহ থেকে অভিহিত অর্থসমূহকে দ্বার করে যে অস্বয়বোধ প্রতীয়মান হয়, তা জরণীমাৎসক স্বীকারকরলে ও , ঐ প্রতীতি কে তাঁরা স্বতন্ত্র প্রমাবলে স্বীকার করেন না। এ স্থলে উল্লেখ করা আবশ্যিক যে, প্রভাকর মীমাৎসক গণ লৌকিক বাক্য থেকে প্রতীত শব্দবোধ কে প্রমাবলে স্বীকার করেন না। কিন্তু বৈদিক বাক্য থেকে প্রতীত বাক্যার্থ বোধের প্রমাত্ব তাঁরা স্বীকার করেন। তা যদি না হত তাহলে বিধি-নিষেধমূলক বেদ-এ উল্লেখিত বাক্যকে যে তাঁরা স্বতঃপ্রমাণ বলে স্বীকার করেন; তাকে অপ্রমাণ বলে স্বীকার করতে হত, যা তাদের দার্শনিক সিদ্ধান্তের বিরোধী হত। যাই হোক প্রশ্ন হল-লোক ব্যবহারে প্রযুক্ত বাক্য থেকে প্রতীয়মান শব্দবোধকে অপ্রমাণ বলার কারণ কি? কারণ হল, লৌকিক বাক্য



বক্তার অভিপ্রায় বা তাৎপর্যের অনুমাপক হয় বলে, তা স্বতন্ত্র ভাবে বাক্যার্থকে বোঝায় না। এর কারণ হল লোক ব্যবহারে লোকপ্রণীত বাক্যে বোধিকা শক্তি ব্যাভিচার শঙ্কার দ্বারা আক্রান্ত হওয়ার কারণে কুণ্ঠিত হয়ে যায়। শব্দ ও অর্থের সম্বন্ধ জ্ঞান-কালে অর্থাৎ ব্যুৎপত্তি সময়ে শক্তি সিদ্ধ হলেও লোক ব্যবহারে প্রযুক্ত শব্দের অর্থের বহু ব্যাভিচার থাকে বলে, ব্যাভিচার শঙ্কার দ্বারা শব্দের অর্থ বোধন-শক্তি ব্যাহত হয়। এই ব্যাভিচার আশঙ্কার নিবৃত্তি ততক্ষণ হয় না, যতক্ষণ পর্যন্ত না এরূপ অনুমান করা হয় “অনেনবক্তা অমুমর্থম ববুধ্য এববাক্যং প্রযুক্তম্”।^৩ যে শব্দের শক্তি কুণ্ঠিত বা ব্যাহত হয়, সেই শব্দ বাক্যার্থ বোধে উদাসীন বা অক্ষম। তা ছাড়া, পুরুষ প্রণীত বাক্যের তাৎপর্য ঐ পুরুষের বুদ্ধির অধীন হওয়ায় ফলে বক্তার জ্ঞানের অনুমিতি ব্যাভীত তাৎপর্যের অনিশ্চয় হেতু বাক্য উদাসীন বা আশঙ্কা যুক্ত হয়। সুতরাং বক্তার জ্ঞানের অনুমান নিতান্ত আবশ্যিক। উল্লেখ্য যে, “নদ্যাস্তীরে ফলানি সন্তি”- ইত্যাদি বাক্য শ্রবণ করে শ্রোতা বাক্যান্তর্গত পদ-প্রতীত অর্থের পৃথক পৃথক স্মরণ করে অনুমান করে যে “এতানি পদানি এতেষাং পদার্থনাং সংসর্গম ববুধ্যৈব প্রযুক্তানি, আগু প্রণীত পদত্বাৎ গামনয়োতি পদবৎ”- এই ভাবে বক্তৃপ্রযুক্ত বাক্যের পদ সমূহের দ্বারা স্মারিত অর্থ সমূহের সংসর্গের জ্ঞানের অনুমান করে শ্রোতার পদার্থ সংসর্গ রূপ বাক্যার্থের জ্ঞান হয়ে থাকে।^৪ সুতরাং প্রভাকর মীমাংসক দার্শনিক গণের মতে, পৌরুষেয় বাক্য থেকে প্রতীত বাক্যার্থ বোধ শ্রোতার দুটি পর্যায়ে হয়ে



থাকে। প্রথমতঃ বক্তৃ-প্রযুক্ত বাক্য থেকে বাক্যান্তর্গত তৎ তৎ পদসমূহের দ্বারা অভিহিত তৎ

তৎ অর্থ সমূহের পারস্পরিক সম্বন্ধের অনুমান করে ব্যাভিচার আশঙ্কার নিবৃত্তি হয়। দ্বিতীয়তঃ

উক্ত ব্যাভিচার আশঙ্কার নিবৃত্তির অনন্তর পদসমূহ দ্বারা অভিহিত তৎ তৎ অর্থ সমূহের নিশ্চয়

পূর্বক পুরুষ প্রযুক্ত সেই বাক্য পুনরায় অনুবাদরূপে তৎ তৎ অর্থের অভিধান করে। সুতরাং

পুরুষ

প্রযুক্তবাক্যের

অর্থকে শ্রোতা প্রথমে অনুমানের দ্বারা নিশ্চয় করে বলে , তৎ বাক্য থেকে প্রতীয় মান অর্থ

পূর্বেজ্ঞাত হয়ে যায়। সেই বাক্য পুনরায় সেই অর্থের অভিধান করে। সে কারণে পৌরুষেয়

বাক্য থেকে যে বাক্যার্থ বোধের প্রতীতহয় , তা গৃহীত-গ্রাহী হয় বলে তা প্রমানয়, অনুবাদ

মাত্র।^৫ অনুবাদ রূপজ্ঞান মাত্রই জ্ঞাত বিষয়ের জ্ঞাপক হওয়ায় , তা গৃহীত গ্রাহী হয়। প্রভাকর

মীমাংসকগণ গৃহীত গ্রাহী জ্ঞান কে প্রমাবলে স্বীকার করেন না।এবিষয়ে একটি বক্তব্য পানিধান

যোগ্য যে, ভ্রম, প্রমাদাদি দোষ যুক্ত পুরুষের বাক্য থেকে যে বাক্যার্থ বোধ হয়, তা ব্যাভিচার

শঙ্কা বিশিষ্ট হওয়ায় প্রথমে শ্রবণ কারী ব্যক্তি আশু প্রণীত ত্বেতু প্রযুক্ত অনুমানের দ্বারা উক্ত

বাক্যান্তর্গত পদসমূহ থেকে স্মারিত অর্থ সমূহের সম্বন্ধের নিশ্চিত জ্ঞান লাভ করে ; অতপরঃ

সেই বাক্যার্থের নিশ্চয় হলে পর উক্ত বাক্য পুনরায় তৎ তৎ অর্থের অভিধান করে বাক্যার্থ বোধ



হয়। প্রভাকর মীমাংসক গণ অনুমানের দ্বারা বাক্যান্তর্গত অর্থ সমূহের সম্বন্ধের নিশ্চিত জ্ঞান হয় বললে ও তাঁরা কিন্তু বৈশেষিকগণের ন্যায় বাক্যার্থ বোধকে অনুমিতির অন্তর্গত বলে স্বীকার করেন না। কারণ হল- তাঁরা আণ্ডোক্তত্বনিশ্চয়কে বাক্যার্থবোধ বা শাব্দবোধের কারণ রূপে স্বীকার করেন। তাঁদের মতে, সাকাঙ্ক্ষাদি জ্ঞানের ন্যায় বাক্যার্থ বিষয় কথার্থ জ্ঞান বৎ পুরুষোচ্চারি তত্ত্বরূপ আণ্ডোক্তত্ব নিশ্চয় বাক্যার্থ বোধের কারণ। সুতরাং একথা স্বীকার্য যে , উক্ত বাক্যার্থ বোধের কারণ যেমন আণ্ড প্রণিতত্ব, তেমনি আকাঙ্ক্ষা , যোগ্যতা ও আসক্তি জ্ঞান যা শাব্দবোধের কারণরূপে সর্ববাদী সম্মত, সেগুলিকেও প্রভাকর গণ উক্তবোধের কারণ রূপে স্বীকার করেন।^৬ প্রভাকরগণের মতে, এক পদার্থে অপর পদার্থের সংসর্গবত্ত্ব রূপ অস্বয়বোধ কে অনুমিতিবলাসঙ্গ তনয়, কেননা, অনুমিতির দ্বারা উক্ত সংসর্গ বত্ত্বরূপ অস্বয়বোধ প্রতিপাদনের পূর্বেই ঐ এক পদার্থে অপর পদার্থের সংসর্গের যথার্থ জ্ঞান বক্তার থাকে। এখন বলপূর্বক বা ইচ্ছাপূর্বক উক্ত জ্ঞাত পদার্থের সংসর্গত্বের সাধন করতে চাইলে সেক্ষেত্রে এক পদার্থে অপর পদার্থের সংসর্গবত্ত্ব অনুমিত হতে পারে কিন্তু ইচ্ছাবিরহ কালীন ঐ প্রকার সংসর্গ বত্ত্বরূপসাধ্যের সিদ্ধি অনুমিতির প্রতিবন্ধক হওয়ায়, উক্ত সংসর্গবত্ত্বরূপ শাব্দত্বকে অনুমিতিত্বের ব্যাপ্য জাতি বলা যায়না। সুতরাং শাব্দবোধ অনুমিতির অন্তর্ভুক্ত নয়।^৭ প্রভাকরগণ যেমন শাব্দ বোধকে অনুমিতির অন্তর্ভুক্ত বলে স্বীকার করেন না তেমনি উক্ত বোধকে স্বতন্ত্র প্রমাবলে



স্বীকার করেন না। পূর্বেই আলোচিত হয়েছে যে, শব্দবোধেজ্ঞাত অর্থের খ্যাপন হয় বলে, তা গৃহীত গ্রাহি বিশিষ্ট জ্ঞান; তা অনুবাদ মাত্র, সে কারণে তা প্রমানয়। প্রভাকর মীমাংসক মতে শব্দ বোধের অপ্রমাত্ত্ব অনুমান সিদ্ধ। সেই অনুমানের আকারহল “শব্দ বোধোন প্রমাগৃহীত গ্রাহিত্বাৎ স্মৃতিবৎ” অর্থাৎ শব্দ বোধপ্রমা নয়, কেননা, তাতে গৃহীত গ্রাহিত্ব থাকে, যেমন স্মৃতি। এখন উক্ত অনুমিতির কারণ ব্যাপ্তি জ্ঞানে যদি “গৃহীত গ্রাহিত্বং প্রমাত্ত্ব ভাব ব্যভিচারিন বা” – এরূপ ব্যভিচার শঙ্কায়, তাহলে প্রভাকরোক্ত অনুমিতির সাধক ব্যাপ্তি জ্ঞাননির্দুষ্ট না হওয়ায়, গৃহীত গ্রাহিত্ব হেতুর দ্বারা শব্দবোধের অপ্রমাত্ত্ব সিদ্ধ হতে পারে না। শব্দ শক্তি প্রকাশিকা কারজগদীশ তর্কালঙ্কার প্রভাকর মীমাংসক গণের বক্তব্য খণ্ডন প্রসঙ্গে প্রভাকরোক্ত প্রমার লক্ষণ হল - যৎজাতীয় বিশিষ্ট জ্ঞানত্বাবচ্ছেদে সমানাকার নিশ্চয়ান্তর তৎজাতীয়া ন্যযথার্থ জ্ঞান অগৃহীত গ্রাহি হওয়ায় প্রমা হয়।^৮ উক্ত প্রমালক্ষণে যৎজাতীয় জ্ঞানত্বাবচ্ছেদের অন্তর্গত “অবচ্ছেদ” পদের ব্যাপকত্ব অর্থ গৃহীত হয় এবং সমানকার নিশ্চয়ান্তরত্ব হবে ঐ প্রকার জ্ঞানত্বের ব্যাপক ;আর, বিশিষ্ট জ্ঞানত্বটি হবে ব্যাপ্য।^৯ সুতরাং প্রভাকর মীমাংসকগণের স্বীকৃত প্রমালক্ষণটির অর্থ হবে- যৎজাতীয় বিশিষ্ট জ্ঞানত্ব-ব্যাপ্যসমান কারনিশ্চয়ান্তরত্ব-ব্যাপক যে জ্ঞান, তৎজাতীয়ত্ব বিশিষ্ট যথার্থ জ্ঞান হবে গৃহীত গ্রাহি জ্ঞান। আর, তৎজাতীয় ভিন্নত্ব বিশিষ্ট জ্ঞান হবে অগৃহীত গ্রাহি জ্ঞান। অগৃহীত গ্রাহি জ্ঞান কে প্রমা বলা হয়। প্রভাকর মতে স্মৃতি জ্ঞান



গৃহীত গ্রাহি হওয়ায় প্রমা হয় না, কেননা, “অয়ংঘটঃ” –এই আকারের স্মৃতি হল স্মৃতিত্ব বিশিষ্ট স্মৃতিগত জ্ঞানত্ব-ব্যাপ্য সমানাকার নিশ্চয়োত্তরত্ব-ব্যাপকতা বা ন্অর্থ্যাৎ যেখানে যেখানে স্মৃতিত্ব বিশিষ্ট স্মৃতিগত জ্ঞানত্ব থাকে সেখানে সেখানে সমানাকার-পূর্বানুভব রূপ নিশ্চয়োত্তরত্ব থাকে।^{১৬}“সংস্কার মাত্র জন্যং জ্ঞানং স্মৃতিঃ- স্মৃতির এই লক্ষণানুসারে স্মৃতির প্রতি যে বিষয়ের স্মৃতি সেই একই বিষয়ের পূর্বানুভব জনিত সংস্কার কারণ হয়।সুতরাং স্মৃতিতে একই বা সমান বিষয়ের পূর্বানুভব জনিত সংস্কার কারণ হওয়ায়, তাতে সমান বিষয়ক নিশ্চয়োত্তরত্ব থাকে।সুতরাং যেখানে যেখানে স্মৃতিত্ব বিশিষ্ট স্মৃতিগত জ্ঞানত্ব থাকে, সেখানে সেখানে সমানাকার নিশ্চয়োত্তরত্ব থাকায়, ঐ প্রকার নিশ্চয়োত্তরত্ব হল ঐ প্রকার বিশিষ্ট জ্ঞানত্বের ব্যাপক এবং উক্ত জ্ঞানত্ব হল ঐ নিশ্চয়োত্তরত্বের ব্যাপ্য।প্রভাকর মতানুসারে “অয়ংঘটঃ” ইত্যাদি স্মৃত্যনুভব স্থলে স্মৃতিত্ব বিশিষ্ট স্মৃতিগত জ্ঞানত্ব ব্যাপ্য সমানাকার নিশ্চয়োত্তরত্বের ব্যাপকতা থাকায়, সেখানে তৎজাতীয়ত্ব রূপ গৃহীত গ্রাহিত্ব থাকে বলে স্মৃতি জ্ঞান প্রমা হয় না।^{১৭}অনুরূপ ভাবে এক পদার্থে অপর পদার্থের সংসর্গত্ব রূপ শাব্দবোধের প্রতি আশ্চোক্তত্ব নিশ্চয় কারণ হওয়ায়, প্রভাকর মতে, যেখানে যেখানে শাব্দ বোধত্ব থাকে, সেখানে সেখানে ঐবোধের বিষয়ভূত অর্থসমূহের সংসর্গের যথার্থ জ্ঞানবান পুরুষোচ্চারণ রূপ আশ্চোক্তত্ব নিশ্চয় থাকায়, উক্ত নিশ্চয়োত্তরত্বতা দৃশ শাব্দত্ব বিশিষ্ট শাব্দগত জ্ঞানত্বের ব্যাপক হয়।সুতরাং শাব্দবোধে



শব্দত্ব বিশিষ্ট জ্ঞানত্ব ব্যাপ্য আণ্ডোক্তত্ব নিশ্চয়োত্তরত্ব রূপ ব্যাপকতা থাকায়, তাতে তৎজাতীয়ত্ব

রূপ গ্রহীত গ্রাহিত্ব থাকে।সুতরাং গৃহীত গ্রাহিনি বন্ধিত উক্ত বোধ প্রমাহতে পারে না।**

প্রভাকরমীমাংসক গণের উক্ত বক্তব্যের অসারতা প্রতিপাদনার্থে জগদীশ তর্কালঙ্কার তাঁর 'শব্দ

শক্তি প্রকাশিকা' গ্রন্থে বলেছেন, এতদ্বিষয়ক যথার্থ জ্ঞানবান্ আণ্ড ব্যক্তি কর্তৃক উচ্চারিতত্ব রূপ

আণ্ডোক্তত্ব নিশ্চয়কে যদি শব্দ বোধের কারণ রূপে স্বীকার করা হয়, তাহলে প্রশ্ন উঠবে ঐ

রূপ নিশ্চয়কি স্বরূপ সংরূপে কারণ কিংবা জ্ঞাত সংরূপে কারণ হয়? যদি প্রভাকর মীমাংসক

গণের মতানুসারে তাদৃশ নিশ্চয়ত্ব কে শব্দ বোধের প্রতি স্বরূপ-সং রূপে কারণ রূপে স্বীকার

করা হয়, তাহলে বিধি-নিষেধ মূলক বেদ বাক্যস্থলে তাদৃশ উচ্চারিত ত্বরূপআণ্ডোক্তত্ব নিশ্চয় না

থাকায়, ঐ রূপ বাক্য সমূহ থেকে বাক্যার্থের প্রতীতি সম্ভবপর হবে না- এরূপ স্বীকার করতে

হবে। অথচ বেদ বাক্য থেকে যথার্থ বাক্যার্থবোধ হয়ে থাকে।সুতরাং তা দৃশনিশ্চয়ত্ব কে শব্দ

বোধের প্রতি স্বরূপ সংকারণ রূপে স্বীকার করা যায় না। আবার, তাদৃশ নিশ্চয়ত্ব জ্ঞাত হয়ে

শব্দ বোধের কারণ ও হয় না, বাক্যার্থ বোধের পূর্বে সর্বত্র বাক্যার্থ বিষয়ক যথার্থ জ্ঞানবৎ

আণ্ডোক্তত্ব রূপ নিশ্চয়ত্ব না থাকলে কিংবা সংশয় থাকলে ও আকাঙ্ক্ষাদি জ্ঞানের সমবধানে

বাক্যার্থ বোধ হয় বলে, ব্যাভিচার বশতঃ আণ্ডোক্তত্ব নিশ্চয়ত্ব কে শব্দ বোধের কারণ বলা যায়

না।^{১১}



উক্ত বক্তব্যের প্রেক্ষিতে প্রভাকর মীমাংসক গণের আপত্তি হল, আণ্ডোক্তত্বের নিশ্চয় না থাকলে কিংবা সংশয় দশাতে ও যদি শাব্দ বোধ হয়, তাহলে সেই শাব্দবোধ প্রমাণিক নয়। সুতরাং ব্যভিচার বশতঃ আণ্ডোক্তত্ব নিশ্চয়কে শাব্দ বোধের কারণ রূপে স্বীকার করা সঙ্গত নয়- এরূপ বক্তব্য সমর্থন যোগ্য নয়, বরং সর্বত্র শাব্দ বোধের পূর্বে বাক্যার্থান্তর্গত আণ্ডোক্তত্ব নিশ্চয় কে কারণ রূপে স্বীকার করা আবশ্যিক।^{১২}

কিন্তু প্রভাকর মীমাংসক গণের এই বক্তব্য গ্রহণ করলে, বিধি-নিষেধমূলক বেদ-বাক্যের ও অপ্রমাণ্যের আপত্তি উঠবে, কেননা, বেদবাক্য থেকে প্রতীত বাক্যার্থ বোধের পূর্বে তৎ তৎ বাক্যার্থ বিষয়ক যথার্থ জ্ঞানবন্দপুরুষোচ্চারিত ত্বরূপ আণ্ডোক্তত্বের নিশ্চয় থাকে না, যেহেতু বেদ অপৌরুষেয়। সুতরাং তাদৃশ নিশ্চয়ত্ব কে সর্বত্র শাব্দবোধের কারণ রূপে স্বীকার করলে বেদবাক্য থেকে প্রতীত শাব্দবোধ অনুবাদ হওয়ায়, তারস্বত প্রামাণ্যের হানি হবে। তাছাড়া, যে বিষয়ের সংশয় কিংবা ব্যাতিরেক নিশ্চয় যার উৎপত্তির প্রতিবন্ধক হয়, তা তদ্বিষয়ক নিশ্চয় জন্য হয়-^{১৩} এরূপ প্রামাণিক ব্যাপ্তির দ্বারা একথা বলা যায় যে, যেহেতু আণ্ডোক্তত্বের সংশয় কিংবা তাদৃশ নিশ্চয়ত্বের অভাব থাকলেও যথার্থ শাব্দবোধ হয়, সেহেতু ঐ প্রকার সংশয় কিংবা আণ্ডোক্তত্বের নিশ্চয়ের অভাব শাব্দবোধে প্রতিবন্ধক হয় না। সুতরাং শাব্দবোধের প্রতি আণ্ডোক্তত্বের কারণতা স্বীকার করা যায়না।^{১৪}



প্রভাকর মীমাংসকগণ পুনরায় শঙ্কা প্রকাশ করে বলেন যে, শাব্দবুদ্ধির

প্রতি আশঙ্কিত নিশ্চয়ের কারণতা সিদ্ধ না হওয়ায়, শাব্দবোধের প্রামাণ্য প্রতিস্থাপিত হয়েছে –
 এরূপ বক্তব্য খণ্ডিত হওয়ায়, তাঁরা শাব্দবোধের অপ্রামাণ্য প্রতিস্থাপনার্থে অন্যপ্রকার যুক্তির
 অবতারণা করেছেন। তাঁদের মতে, শাব্দবোধের প্রতি তাৎপর্য জ্ঞানের কারণতা থাকায়,
 শাব্দবোধের অপ্রমাদ সিদ্ধ হয়। বক্তার ইচ্ছা বা অভিপ্রায় হল তাৎপর্য।** শাব্দবোধের প্রতি
 আকাঙ্ক্ষাদি জ্ঞান যেমন কারণ , তেমনি তাৎপর্য জ্ঞানও কারণ।^{১৫}অধিকাংশ নৈয়ায়িকগণ একথা
 স্বীকার করেন । বাক্যার্থ বোধস্থলে প্রকরণের ভিন্নতাবশতঃ বাক্যান্তর্গত পদের নানাবিধ অর্থ-
 বিশেষে শাব্দপ্রতীতির অনুরোধে তাৎপর্যজ্ঞানকেও কারণরূপে স্বীকার করা হয়। তাই যদি হয়,
 তাহলে নৈয়ায়িক মতে ‘ঘটম্’ ইত্যাদি বাক্য জন্য কর্মত্ব-প্রকারক ঘট-বিশেষ্যক শাব্দবোধের
 প্রতি “ঘটমেতি বাক্যম্ ঘটাদিবিশিষ্ট কর্মত্ববোধেচ্ছায়া উচ্চারিতম্”-^{১৬}এরূপ তাৎপর্য জ্ঞানকে
 কারণরূপে স্বীকার হবে। উক্ত তাৎপর্য জ্ঞানের বিষয় একপদার্থবিশিষ্ট অপরপদার্থপ্রকারক
 বোধ। সুতরাং বাক্যার্থবোধ-এর পূর্বে উক্ত বোধের বিষয় তাৎপর্য জ্ঞানের বিষয় এবং
 শাব্দবোধের প্রতি তাৎপর্য জ্ঞানের কারণতা স্বীকৃত হওয়ায় ঘট-বিশেষ্যক কর্মত্ব-প্রকারক জ্ঞান
 সিদ্ধিস্বরূপ হওয়ার ফলে উক্ত সিদ্ধি বৈশেষিক সন্মত অনুমিতির বিরোধী হবে। ফলতঃ শাব্দবোধ
 অনুমিতির অন্তর্গত-এরূপ বক্তব্য সঙ্গত নয়। আর যদি শাব্দবোধের কারণতা স্বীকার করা না
 হয়, তাহলে ‘ঘটম্’ ইত্যাদি বাক্যে ঘটকর্মত্বাদি পরত্বের অভাব নিশ্চয়স্থলে কিংবা



ঘটকর্মাত্বাদ্যন্যমাত্র পরত্বের নিশ্চয়স্থলে আধেয়তা সম্বন্ধে কর্মত্ব-বিশেষ্যক ঘট-প্রকারকাদি
 অস্বয়বোধের আপত্তি হবে। সুতরাং শাব্দবোধের প্রতি একপদার্থবিশিষ্ট অপরপদার্থ
 বোধেচ্ছাপ্রযুক্ত উচ্চারিতত্বরূপ তাৎপর্য জ্ঞানের কারণতা অবশ্যই স্বীকার করতে হবে।

অবশ্য প্রভাকরণের উক্ত বক্তব্য সমর্থনযোগ্য নয়, কেননা, কর্মতা-ধর্মিক ঘটাদি-প্রকারক
 অস্বয়বুদ্ধি পরত্বের নিশ্চয় দশাতেও প্রমেয়রূপে ঘট ও কর্মত্বকে অবলম্বন করে 'ঘটম্' ইত্যাদি
 বাক্য থেকে "প্রমেয়ং ঘটীয়ং" কিংবা "কর্মত্বং প্রমীয়ম্" ইত্যাদি বোধ ইচ্ছায় উচ্চারিতত্বরূপ
 তাৎপর্যনিশ্চয় থাকলেও "ঘটীয়ং কর্মত্বম্" -এরূপ অস্বয়বুদ্ধি উৎপন্ন হয় না বলে
 কর্মত্ববচ্ছিন্নবিশেষ্যতানিরূপিতঘটত্বপ্রকারক যে বোধ, সেই বোধের অনুকূল পুরুষোচ্চারণ
 প্রযুক্ত নিশ্চয়ত্বরূপ তাৎপর্য জ্ঞানই 'ঘটম্' ইত্যাদি বাক্যোৎপন্ন কর্মত্ববান্ ঘট-প্রকারক
 অস্বয়বুদ্ধির কারণরূপে স্বীকার করতে হয়। আর , তা স্বীকার করলে শাব্দবোধকে জ্ঞাত
 বিষয়ের জ্ঞাপকতা হেতু অপ্রমা বলা যাবে না। কারণ, উক্ত তাৎপর্য জ্ঞানে , ঐ জ্ঞানের ঘটক
 "একপদার্থবিশিষ্ট অপরপদার্থ"-এরূপ বোধেচ্ছার বিষয় "একপদার্থবিশিষ্ট অপরপদার্থ"রূপ
 বাক্যার্থের নিবেশ থাকে না বরং আধেয়তা সম্বন্ধে নিরূপ্য-নিরূপকভাবাপন্ন বিষয়তা প্রবিষ্ট
 থাকায়, শাব্দবোধের পূর্বে একপদার্থবিশিষ্ট অপরপদার্থের জ্ঞান থাকে না। সুতরাং শাব্দবোধে
 অজ্ঞাতবিষয়ক জ্ঞান থাকে না বলে , তার প্রমাত্ত্ব বিষয়ে সংশয় থাকে না।^{১৮}



প্রভাকরণ উক্ত বক্তব্য স্বীকার করেন না, তাঁদের মতে 'ঘটম্' ইত্যাদি বাক্য জন্য অস্বয়বুদ্ধির প্রতি "‘ঘটম্'- ইত্যাদি বাক্য আধেয়তা কর্মতাবিশেষ্যক ঘটপ্রকারকপ্রতীতিজনকত্বরূপে অভিপ্রেত"- এরূপ তাৎপর্য জ্ঞানকে কারণ বলতে হবে। অন্যথায় তাদৃশ তাৎপর্যজ্ঞানের অনিশ্চয় দশাতেও আধেয়তা সম্বন্ধাবচ্ছিন্ন কর্মতাবিশিষ্ট ঘটপ্রকারক শাব্দবোধের আপত্তি হবে।^{১৯}

ফলতঃ এভাবে তাৎপর্য জ্ঞান স্বীকার করার ফলে, উক্ত জ্ঞানে "একপদার্থবিশিষ্ট অপরপদার্থ প্রকারক "জ্ঞানরূপ বাক্যার্থ নিবিষ্ট থাকায়, তৎ বিষয়ক বাক্যার্থবোধ এর পূর্বে, তৎ বোধের কারণ তাৎপর্য জ্ঞানকালেই বাক্যার্থ জ্ঞাত হয়ে যায়। সুতরাং শাব্দবোধের পূর্বেই তৎ বোধ বিষয়ক জ্ঞান হয়ে যাওয়ায় শাব্দজ্ঞান অনুবাদক হয়ে যায়। সুতরাং তা অপ্রমা।^{২০}

প্রভাকর মীমাংসকগণের উক্ত বক্তব্য সঙ্গত নয়, কেননা, শাব্দবোধের পূর্বে সর্বত্র তাৎপর্য জ্ঞানের কারণতা স্বীকার করা হয় না। উল্লেখ্য যে, সমানানুপূর্বা অশ্রয়মান 'ঘটম্' ইত্যাদি বাক্যে ঘটীয় কর্মত্বপরত্বনিশ্চয় কালেও কিংবা ভিন্ন কালে শ্রয়মান বাক্যব্যক্তিতে তৎপরত্ব নিশ্চয় থাকলেও "ঘটীয়ং কর্মত্বম্" -এরূপ শাব্দবোধ উৎপন্ন হয় না। উক্ত স্থলে শাব্দবোধের আপত্তি বারণের জন্য কালান্তরীয় 'ঘটম্' ইত্যাদি বাক্যে ঘটাদি বিশিষ্ট কর্মত্বাদিপরত্বনিশ্চয় দশাতেও , বর্তমানে শ্রয়মান বাক্য ঘটীয় কর্মত্বপরত্বাভাববদ্ নিশ্চয়ে 'ঘটীয়ং কর্মত্বম্' -এরূপ বোধের প্রতি তৎ তৎ কালীন তৎ তৎ বাক্যগত ঘটীয়কর্মত্বাদিবোধ পরত্বের নিশ্চয় থাকলে তৎ তৎ



বাক্যান্তর্গত পদসমূহ থেকে প্রতীত তৎ তৎ অর্থবিষয়ক তাৎপর্য জ্ঞানকে শাব্দবোধের কারণরূপে স্বীকার করতে হবে। কিন্তু এভাবে তাৎপর্য জ্ঞান ও শাব্দবোধের মধ্যে কার্য- কারণ স্বীকার করলে গৌরব দোষ হবে। সেকারণে অবশ্যকসংগতনিয়তপূর্ববর্তিতাকৃত্বশতঃ তাৎপর্য জ্ঞানের জনক প্রকরণজ্ঞানকে অস্বয়বোধের হেতুরূপে স্বীকার করাই সঙ্গত।^{২১} উক্ত বক্তব্যের তাৎপর্য হল- 'সৈন্ধবানয়' -এই আকারের বাক্যজন্য লবনার্থবিষয়ক শাব্দবোধের প্রতি ভোজন প্রকরণের জ্ঞানকে কারণ বলতে হবে। আবার, উক্ত বাক্য জন্য অশ্বের আনয়নরূপ অর্থের প্রতি যুদ্ধ-প্রকরণের জ্ঞান কারণ হয়, ভোজন -প্রকরণ কারণ হয় না। সুতরাং বাক্যার্থবোধের প্রতি প্রকরণ জ্ঞানের যেমন অস্বয়-ব্যতিরেক থাকে, তেমনই ঐ জ্ঞান কারণ হয় বলে তাতে উক্ত বোধের নিয়ত পূর্ববর্তিতাও থাকে। সুতরাং তাৎপর্য জ্ঞান নয়, বরং প্রকরণ জ্ঞানকেই বাক্যার্থবোধের কারণরূপে স্বীকার করাই যুক্তিসঙ্গত। এবিষয়ে একটি কথা প্রানিধানযোগ্য যে, শাব্দবোধের প্রতি তাৎপর্য জ্ঞান ও তদ্ ভূত প্রকরণ জ্ঞান- উভয়ের অন্যথাসিদ্ধ্যভাব ও নিয়তপূর্ববর্তিতা থাকলেও প্রকরণ জ্ঞানের নিয়তপূর্ববর্তিতা অবশ্যকসংগত হওয়ায়, কল্পনার লাঘব বশতঃ ঐ জ্ঞানকে শাব্দবোধের কারণরূপে স্বীকার করা হলেও তাৎপর্য জ্ঞানকে কারণরূপে স্বীকার করা হয় না। ফলতঃ শাব্দবোধের প্রতি তাৎপর্য জ্ঞান হেতু না হওয়ায় তদজ্ঞানাবচ্ছেদে বাক্যার্থ সিদ্ধ না হওয়ায়, শাব্দবোধানুবাদ হয়- প্রভাকরণের এরূপ বক্তব্য যুক্তিসঙ্গত নয়।^{২২} অবশ্য প্রভাকরণ মীমাংসকগণ প্রকরণ জ্ঞান নয়, বরং তাৎপর্য জ্ঞানকেই শাব্দবোধের



কারণরূপে স্বীকার করেন।^{২৩} তাঁদের মতে , বাক্যার্থগোচর যে বোধ , তৎবোধজনকত্বকে বিশেষণরূপে গ্রহণ করে নানার্থক পদকে বিশেষ্যরূপে গ্রহণ করে যে “তৎপদং তৎবোধকং ভবতু”-এই আকারের যে ইচ্ছা, সেই ইচ্ছাতে তৎপদবিশেষ্যত্বরূপ যে বিষয়তা , তাই হল তাৎপর্য। ‘সৈন্ধবমানয়’ -এরূপ বাক্য স্থলে তাৎপর্যবিষয়ত্ব সৈন্ধবাদি পদে থাকার ফলে ,ঐ প্রকার বিষয়ত্ব প্রকারক সৈন্ধবাদি পদবিশেষ্যক জ্ঞানই হল তাৎপর্য জ্ঞান। উক্ত তাৎপর্য জ্ঞানকে শাব্দবোধমাত্রের প্রতি কারণ রূপে স্বীকার করতে হবে। কেননা, শাব্দবোধে তাৎপর্য জ্ঞানের সংশয় কিংবা ব্যতিরেক নিশ্চয় থাকলেও যথার্থ শাব্দবোধ উৎপন্ন হয় না।^{২৪}সে কারণে ‘সৈন্ধবানয়’ ইত্যাদি বাক্য জন্য বোধে ‘সৈন্ধব’ ইত্যাদি নানার্থক পদ থেকে যুগপৎ বিভিন্ন অর্থের বোধ হলেও লবনাদি অর্থবিশেষের অন্বেষণবোধের জন্য ঐ পদ বিশেষে তাৎপর্য নিশ্চয়কে কারণরূপে স্বীকার করতে হবে। আপত্তি হতে পারে যে, “সৈন্ধবানয়” ইত্যাদি বাক্য জন্য বোধে ‘সৈন্ধব’ ইত্যাদি নানার্থক পদস্থলে অর্থপরত্বের বোধ তো লক্ষণার দ্বারাও হতে পারে, সেক্ষেত্রে তাৎপর্য জ্ঞান স্বীকারের যৌক্তিকতা কি? একথা সত্য যে , ক্ষেত্রবিশেষে পদ-উপস্থাপিত মুখ্যার্থে সম্বন্ধিত অর্থপরত্বের জ্ঞান এর দ্বারা অন্বেষণের উপপত্তি হলেও, ‘ষষ্টিঃ প্রবেশয়” ইত্যাদি বাক্য জন্য বোধে ‘ষষ্টি’ ইত্যাদি পদের দ্বারা উপস্থাপিত ষষ্টিধর-রূপ অর্থে লক্ষণার নিয়ামকরূপে নৈয়ায়িকগণ মুখ্যার্থবাধকে পরিত্যাগ করে , তাৎপর্য জ্ঞানকেই গ্রহণ করেছেন। সুতরাং একপদার্থবিশিষ্টাবচ্ছিন্ন অপরপদার্থ প্রকারক জ্ঞান প্রযুক্ত ইচ্ছা বা অভিপ্রায় বিষয়ভূত তাৎপর্য



জ্ঞানকে শাব্দবোধের কারণরূপে স্বীকার করতে হবে। আর, বাক্যান্তর্গত পদসমূহের দ্বারা উপস্থাপিত অর্থসমূহের বিশিষ্ট-বৈশিষ্ট্যাবগাহী জ্ঞান অর্থাৎ একপদার্থবিশিষ্টাবচ্ছিন্ন অপরপদার্থ প্রকারক বোধই হল বাক্যার্থ বোধ। সুতরাং তাৎপর্য জ্ঞান শাব্দবোধের কারণরূপে স্বীকৃত হওয়ায়, তৎজ্ঞানাবচ্ছেদকরূপে বিশিষ্ট-বৈশিষ্ট্যাবগাহী বোধরূপ বাক্যার্থ সিদ্ধ হওয়ায় শাব্দবোধ কেবল তাৎপর্যজ্ঞানবিষয়ভূত বিষয়ের জ্ঞাপক হয়। সেকারণে প্রভাকর মীমাংসক দার্শনিকগণের মতে শাব্দবোধ জ্ঞাত অর্থের জ্ঞাপক হওয়ার কারণে প্রমারূপে স্বীকৃত হতে পারে না।^{২৫} কিন্তু প্রভাকর মীমাংসকগণ যেরূপে শাব্দবোধের প্রতি তাৎপর্য জ্ঞানের কারণতা সিদ্ধির স্বপক্ষে যুক্তি প্রদান করেছেন, তা সঙ্গত নয়, কেননা, অভিনব কবিগণের দ্বারা রচিত বাক্যসমূহে অর্থপরত্বে তাৎপর্য নিশ্চয় থাকায় এবং পশু, পক্ষী কর্তৃক উচ্চারিত তাৎপর্যশূন্য শব্দে স্বার্থ পরত্বাভাব নিশ্চয় দশাতেও অর্থাৎ তাৎপর্যাভাব দশাতেও সমাজে বসবাসকারী সচেতন মানুষের বাক্যার্থবোধ হয়ে থাকে। সুতরাং তাৎপর্যশূন্য বাক্যসমূহ থেকে শাব্দবোধ উৎপন্ন হওয়ায় ব্যতিরেক ব্যভিচার দোষদুষ্ট তাৎপর্য জ্ঞান শাব্দবোধের কারণ হতে পারে না।^{২৬} পরিশেষে, বলা যায় যে, প্রভাকর মীমাংসকগণ শাব্দবোধের প্রতি তাৎপর্য জ্ঞানের কারণতা স্বীকার করে তদ্ জ্ঞানাবচ্ছেদে বাক্যার্থ শাব্দবোধের পূর্বেই জ্ঞাত হওয়ায়, শাব্দবোধে অনুবাদকত্বের এবং তৎজন্য অপ্রমাত্বের আপত্তি করেছিলেন, তা সঙ্গত নয়। বরং শাব্দবোধ এর স্বতন্ত্র প্রমাত্ব স্বীকার করাই যুক্তিসঙ্গত।



তথ্যসূচীঃ-

১) শব্দশক্তিপ্রকাশিকা/আচার্য জগদীশ তর্কালঙ্কার বিরচিত, ভট্টাচার্য মধুসূদনন্যায়াচার্য অনূদিত ও

ব্যখ্যাত, প্রথম খণ্ড, সংস্কৃত কলেজ, কলিকাতা-৭০০০৭৩, সাল-১৯৯০, প্রথম খণ্ড, পৃ-৬৪

২) "পুরুষবচনানি বক্তৃভিপ্রায়ানুমাপকান্যেব ন স্বয়মেব বাক্যার্থং বোধয়তি শঙ্কাকুষ্ঠিত শক্তিভাৎ"-

মানমেয়োদয়- আচার্য নারায়ণ ভট্ট বিরচিত, ত্রিপাঠী, শ্রী দীননাথ কর্তৃক অনূদিত ও সম্পাদিত,

প্রথম খণ্ড, সংস্কৃত কলেজ, কোলকাতা-৭০০০৭৩, সাল-১৯৯০, পৃ-১৭৭

৩) "ব্যুপত্তিসময়সিদ্ধাপি শব্দানাং বোধকশক্তিব্যভিচারবহুলেষু পৌরুষেয়বচনেষু তদাশঙ্কায়াকুষ্ঠিতা

ভবতি। তত্র চ অনেন বক্ত্রামুর্থমববুদ্ধৈয়ব বাক্যং প্রযুক্তম ইতি যাবন্নানুমীয়েতে তাবদন্যাথাভুশঙ্কা

ন নিবর্তত ইতি বাক্যমুদায়েস্ত এব"-মানমেয়োদয়- আচার্য নারায়ণ ভট্ট বিরচিত, ত্রিপাঠী, শ্রী

দীননাথ নবতীর্থ কর্তৃক অনূদিত ও সম্পাদিত, প্রথম খণ্ড, সংস্কৃত কলেজ, কোলকাতা-

৭০০০৭৩, সাল-১৯৯০, পৃ-১৭৭

৪) "...তথা তাৎপর্যমপি নরগিরাং তদ্বুদ্ধ্যধীনমিতি বক্তৃবুদ্ধ্যনুমানং বিনা তাৎপর্যানিশ্চয়াদপি

বাক্যমুদাস্তে। তস্মাৎ বক্তৃধীস্তাবদনুমাভব্যা। তত্র নদ্যাস্তীরে ফলানি সন্তি ইতি বাক্যে শ্রুতে

পদার্থেষু চ পৃথক পৃথক স্মৃতেষু অনুমিনোমি। এতানি পদানি এতেষাং পদার্থানাং



संसर्गमवबुद्धैव प्रयुक्तानि आशुप्रणीतपदत्वां गमानय इति पदवत् इति”- मानमेयोदय- आचार्य
नारायण भट्ट विरचित, त्रिपाठी,श्री दीननाथ नवतीर्थ कर्तृक अनूदित ও সম্পাদিত, प्रथम खण्ड,
संस्कृत कलेज, कोलकात-१०००१३,साल-१९९०, पृ-१११

५)मानमेयोदय- आचार्य नारायण भट्ट विरचित, त्रिपाठी, श्री दीननाथ नवतीर्थ कर्तृक अनूदित ও
सम्पादित,प्रथम खण्ड, संस्कृत कलेज, कोलकात-१०००१३,साल-१९९०, पृ-१११

७)“आकाङ्क्षा च योग्यत्वं सन्निधिश्चेति तत्रयम्। वाक्यार्थावगमे सर्वैः कारणत्वेन
कल्पते”मानमेयोदय, (प्रथम खण्ड)(६२/३१/६), आचार्य नारायण भट्ट विरचित,त्रिपाठी,श्री दीननाथ
नवतीर्थ कर्तृक अनूदित ও সম্পাদित, प्रथम खण्ड,संस्कृत कलेज, कलिकाता-१०००१३, साल-
१९९०,पृ-११३

८)“यज्जातीयविशिष्टज्ञानत्वावच्छेदेन समानाकारनिश्चयोत्तरत्वं
तज्जातीयान्यथार्थज्ञानस्यैवागृहिह्येन प्रमात्वात्”- शब्दशक्तिप्रकाशिका- आचार्य जगदीश तर्कालङ्कार
विरचित, कारिका-६,शास्त्री,पण्डित दुर्गुराज कर्तृक सम्पादित, चौखम्बा संस्कृत सिरिज
अफिस,वाराणसि-१(इण्डिया),साल-१९१३,पृ-२२



৯) শব্দশক্তিপ্রকাশিকা-আচার্য জগদীশ তর্কালঙ্কার বিরচিত, কর, শ্রী গঙ্গাধর ন্যায়াচার্য, কর্তৃক

অনুদিত ও ব্যাখ্যাত, সেন্টার অফ এডভান্স স্টাডি ইন ফিলোসফি যাদবপুর বিশ্ববিদ্যালয়, সাল-

২০১৪, পৃ-৭৪

১০) শব্দশক্তিপ্রকাশিকা-আচার্য জগদীশ তর্কালঙ্কার বিরচিত, কর, শ্রী গঙ্গাধরন্যায়াচার্য, কর্তৃক

অনুদিত ও ব্যাখ্যাত, সেন্টার অফ এডভান্স স্টাডি ইন ফিলোসফি যাদবপুর বিশ্ববিদ্যালয়, সাল-

২০১৪, পৃ-৭৪

১১) তর্কসংগ্রহ-অন্নভট্ট বিরচিত, গোস্বামী, শ্রী নারায়ণচন্দ্র কর্তৃক সম্পাদিত ও ব্যাখ্যাত,

সংস্কৃত পুস্তক ভাণ্ডার, ৩৮, বিধান সরণী, কলকাতা-৭০০০০৬, সন-১৪১০, পৃ-২৬০

১২) শব্দশক্তিপ্রকাশিকা -জগদীশ তর্কালঙ্কার বিরচিত, মধুসূদন ভট্টাচার্য ন্যায়াচার্য কর্তৃক অনুদিত

ও ব্যাখ্যাত, প্রথম খণ্ড, সংস্কৃত কলেজ, কলিকাতা-৭০০০৭৩, সাল-১৯৮০, প্রথম খণ্ড, পৃ-৫৫

১৩) “নাশ্তোক্ততাবাক্যার্থগর্ভাজ্ঞাতোপযুজ্যতে। বাক্যার্থনামপূর্বত্বাৎসংশয়েৎপ্যম্বয়োদয়াত্।।”-

কারিকা-৫, শব্দশক্তিপ্রকাশিকা-আচার্য জগদীশ তর্কালঙ্কার বিরচিত, কৃষ্ণকান্তীটীকা, শাস্ত্রী, পণ্ডিত

চুণ্ডুরাজ কর্তৃক সম্পাদিত, চৌখম্বা সংস্কৃত সিরিজ অফিস, বারানসি-১(ইণ্ডিয়া), সাল-১৯৭৩, পৃ-

২২



“कदाचिदुपस्थितिसम्भवेत्पिशादत्वेत्तुनिश्चयस्यव्याभिचारान्नेतुत्वासम्भवइतिभावः”-शब्दशक्तिप्रकाशिका-

आचार्य जगदीश तर्कालङ्कार विरचित, कृष्णकान्तीटीका,शान्ती,पण्डित दुर्गिराज कर्तृक सम्पादित,

चौखम्बा संस्कृत सिरिज अफिस,वाराणसि-१(इण्डिया),साल-१९९३,पृ-२३

१४)“कदाचिदुपस्थितिसम्भवेत्पिशादत्वेत्तुनिश्चयस्यव्याभिचारान्नेतुत्वासम्भवइतिभावः।ननुपूर्वाक्यार्थविषय

कशब्दएवप्रामाणिकइतिकुतोहव्याभिचार? सर्वत्रैवशब्दबोधात्प्राञ्जन्मतेरावश्यकत्वेत्यररथः”

-शब्दशक्तिप्रकाशिका - आचार्य जगदीश तर्कालङ्कार विरचित,कृष्णकान्तीटीका,शान्ती,पण्डित दुर्गिराज

कर्तृक सम्पादित, चौखम्बा संस्कृत सिरिज अफिस,वाराणसि-१(इण्डिया) साल-१९९३,पृ-२३

१५) “यो यद्यतिरेकज्ञानत्वावच्छिन्नप्रतिबन्धः, स तन्निश्चयजन्य”-कृष्णकान्ती टीका,पृ-२३ किंवा,

“यत्संशयव्यतिरेकानिश्चयो यदुत्पत्तिप्रतिबन्धको तन्निश्चयजन्यमिति व्याप्ते प्रामाणिकत्वादि

भावः”- शब्दशक्तिप्रकाशिका- आचार्य जगदीश तर्कालङ्कार विरचित,रामभद्री टीका,शान्ती,पण्डित

दुर्गिराज कर्तृक सम्पादित, चौखम्बा संस्कृत सिरिज अफिस,वाराणसि-१(इण्डिया),साल-१९९३ पृ-

२३

१६) “आण्डोक्तसंशयादपि शब्दोत्पादेन व्याभिचारान्निश्चयस्य हेतुत्वासिद्धे” -

शब्दशक्तिप्रकाशिका- आचार्य जगदीश तर्कालङ्कार विरचित,रामभद्री टीका,कारिका-५ एर



ब्याख्या,शास्त्री,पण्डित दुण्डिराज कर्तृक सम्पादित, चौखम्बा संस्कृत सिरिज अफिस,बारानसि-

१(इण्डिया),साल-१९९३पृ-२३

१९) “ननु माडूदाण्ठोक्तस्य निश्चयानुरोधेन सिद्धसाधनं तात्पर्यस्य तु

स्यात्,तन्निश्चयस्यान्वधीहेतुत्वात्”- शब्दशक्तिप्रकाशिका- आचार्य जगदीश तर्कालङ्कार

विरचित,कारिका-५ एर ब्याख्या,शास्त्री,पण्डित दुण्डिराज कर्तृक सम्पादित, चौखम्बा संस्कृत सिरिज

अफिस,बारानसि-१(इण्डिया),साल-१९९३, पृ-२४

१८)शब्दशक्तिप्रकाशिका - आचार्य जगदीश तर्कालङ्कार विरचित,भट्टाचार्य, मधुसूदन न्यायाचार्य

अनुदित ओ ब्याख्यात,प्रथम खण्ड,संस्कृत कलेज, कलिकाता-९०००९३, साल-१९८०,पृ-३७)

१९) शब्दशक्तिप्रकाशिका, -आचार्य जगदीश तर्कालङ्कार विरचित, भट्टाचार्य,मधुसूदनन्यायाचार्य अनुदित

ओ ब्याख्यात,प्रथम खण्ड ,संस्कृत कलेज, कलिकाता-९०००९३,साल-१९८०,पृ-३७

२०) “ननु घटमिति वाक्यं कर्मताधर्मिकाधेयतासम्बन्धेन

घटप्रकारकप्रतीतिजनकत्वेनाभिप्रेत्यादित्वात्पर्यङ्गानस्य हेतुत्वं वाच्यम्, अन्यथा

तादृशतात्पर्यभावनिश्चयदशायामपि कर्मत्वमाधेयता घटीयमित्यादशाब्दधीप्रससंगान्तथाच तत्र

वाक्यार्थस्य निवेशावश्यकतया शब्दोऽनुवादकः स्यादत आह.....” एवं पादटीकाते

प्रभाकरगणेर अभिप्रायं व्यक्तं करे पण्डित दुण्डिराज शास्त्री महाशयं बलेहेन “घटमिति



बाक्यं कर्मता धर्मिका धेयता सङ्घेन घटप्रकारकप्रतीतिजनकत्वेनाभिप्रायेतमित्यादितां पर्यङ्गानस्य

तादृशतां पर्याभावनिश्चयदशायां तद्वाक्यात्-कर्मत्वं घटीयमिति शब्दबोधवारणया अवश्यं हेतुत्वं

वाच्यं तथा च तत्रैव वाक्यार्थस्य प्रवेशाच्छब्दानुवादक इत्यत्र मीमांसकशङ्काभिप्रायो बोध्यः”-

शब्दशक्तिप्रकाशिका- आचार्य जगदीश तर्कालङ्कार विरचित, कारिका-५ एर व्याख्या, रामभद्री

टीका, शास्त्री, पण्डित दुर्गिराज कर्तृक सम्पादित, चौखम्बा संस्कृत सिरिज अफिस, वारानसि-

१(इण्डिया), साल-१९९३, पृ- २४-२५

२१) “समानानुपूर्वीकस्यैव वाक्यान्तरस्य तस्यैव वा कालान्तरमन्तर्भाव्य

घटीयकर्मत्वादिपरत्वनिश्चयत्वेऽपि श्रयमाणवाक्यव्याख्याविदानीमन्तर्भाव्य

घटीयकर्मत्वादिपरत्वेऽसत्त्वेऽपि तत् परत्वेऽप्यनिश्चेत्त्वावनिश्चये वा घटीयं

कर्मत्वमित्याद्यस्यमेव तरेन..... तथाच तन्तुत्वेऽनुभूतानां प्रकरणङ्गानाभिधानामेव

विज्ञानव्यङ्गीनां तथात्तुमुचितम् अवश्यं षष्ठपूर्ववर्तितकत्वात्”- शब्दशक्तिप्रकाशिका- आचार्य जगदीश

तर्कालङ्कार विरचित, कारिका-५ एर व्याख्या, शास्त्री, पण्डित दुर्गिराज कर्तृक सम्पादित, चौखम्बा

संस्कृत अफिस, वारानसि-१(इण्डिया), साल-१९९३, पृ-२९-२८



২২) *শব্দশক্তিপ্রকাশিকা* আচার্য জগদীশ তর্কালঙ্কার বিরচিত, ভট্টাচার্য, মধুসূদন ন্যায়াচার্য অনূদিত

ও ব্যাখ্যাত, প্রথম খণ্ড, সংস্কৃত কলেজ, কলিকাতা-৭০০০৭৩, সাল-১৯৮০, পৃ-৬৬

২৩) *শব্দবোধে ব্যুৎপত্তিবাদ প্রসঙ্গ*-মণ্ডল, নীলিমা, শরৎ বুক ডিস্ট্রিবিউটার্স, ১৮বি শ্যামাচরণ দে

স্ট্রিট, কলিকাতা-৭০০০৭৩, পৃ-২৮

২৪) “বাক্যার্থপ্রতীতিজনকতয়াভিপেততুলক্ষণস্য তাৎপর্যস্য জ্ঞানমবশ্যং হেতুঃ.....”-

শব্দশক্তিপ্রকাশিকা আচার্য জগদীশ তর্কালঙ্কার বিরচিত, কারিকা-৫ ব্যাখ্যা, শাস্ত্রী, পণ্ডিত চুণ্ডিরাজ

কর্তৃক সম্পাদিত, চোখস্বা সংস্কৃত সিরিজ অফিস, বারানসি-১(ইণ্ডিয়া), সাল-১৯৭৩, পৃ-২৭

২৫) *শব্দশক্তিপ্রকাশিকা* আচার্য জগদীশ তর্কালঙ্কার বিরচিত, ভট্টাচার্য, মধুসূদন ন্যায়াচার্য অনূদিত

ও ব্যাখ্যাত, প্রথম খণ্ড, সংস্কৃত কলেজ, কলিকাতা-৭০০০৭৩, সাল-১৯৮০ পৃ-৬৯

২৬) “অপি চ কবি কেঞ্চিত্ত্বাৎপর্যেন বাক্যানি প্রযুক্তে। শ্রোতস্তু অন্যর্থপরত্বনিশ্চয়েপি শাব্দবোধ

জায়তে। কিং চ শুকাদুচ্চারিতবাক্যানাং স্বার্থপরত্বাবনিশ্চয়েপি শ্রোতৃণামস্বয়বোধে জায়তে।

তথা চ ব্যতিরেকব্যভিচারাত্ ন তাৎপর্যনিশ্চয়স্য শাব্দবোধহেতুত্বমিতি”- *শাব্দবোধমীমাংসা*

(*বাক্যাবাক্যার্থবিচারাত্মকঃ প্রথমভাগঃ*), -এন.স.রামানুজ তাত্চার্য, ইন্সটিটিউট ডে পণ্ডিচেরি, রাষ্ট্রীয়

সংস্কৃতসংস্থান, ২০০৫, পৃ-৫৪



MAJOR CHALLENGES TO SUSTAINABLE AGRICULTURE IN INDIAN SUNDARBANS UNDER CLIMATE CHANGE SCENARIO- AN OVERVIEW

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Abstract:

The present study is on the impact of climate change on the major production system - agriculture in the Indian Sundarbans eco-region. Since the period of British rule 200 years back, this lower Hughli- Matla estuary at the deltaic part of West Bengal is chiefly characterized as an agrarian economy where paddy is cultivated as the major crop in every season years after years. Even today, more than 50% workers in the island system depend on agriculture to earn their livelihood either as cultivators or agricultural labourers. However, in the last three decades under the climate change scenario the natural changes like the uncertainty of rainfall, rise in the salinity at the estuarine waters and soil and lack of fresh water supply for irrigation, small and fragmented landholdings, low diversification of crops- have all contributed to major problems in the agricultural domain. The agriculture in the island system is becoming non-remunerative day by day. The poor less educated unaware masses are forced to shift to some other occupations to earn their minimum livelihoods. This is pushing the physical, social and economic vulnerability of the Sundarban inhabitants to a higher side reducing their coping capacity to meet the frequent natural changes happening in this fragile ecosystem like coastal erosion due to relative sea level rise, frequent embankment failures, coastal flooding inundation and submergence of low lying agricultural fields and rise of high intensity events like cyclones. The region has witnessed a marked decline in the percentage of cultivators in different Census years in the last seven decades and there has also been a major land use change observed at different islands especially after the event of Aila cyclone of 2009. Aquaculture farms are rising fast at the expanse of agricultural lands. If this trend continues, it is apprehended that the island system may experience food insecurity problems in the near future. This study is based on both quantitative and qualitative assessments of primary and secondary data collected.

Key Words : Agriculture, Indian Sundarbans, Climate Change , Vulnerability.

(Paper published on 1st December, 2023.)

1. Introduction:

Sundarbans, an unique region being the only mangrove tiger land of the world and the largest delta is chiefly characterized by an agrarian economy dominated by rice based farming system since last 200 years. At present, however, the farmers are facing numerous challenges to sustain this major production system in the region because of different natural changes whose frequency and intensity have both increased under climate change situation. The Sunderbans delta is built primarily by the silt carried down by the Ganga and Brahmaputra river system lying between the Hooghly on the West and the Padma-Meghna on the northeast. The ecological region is getting increasingly threatened at present by such

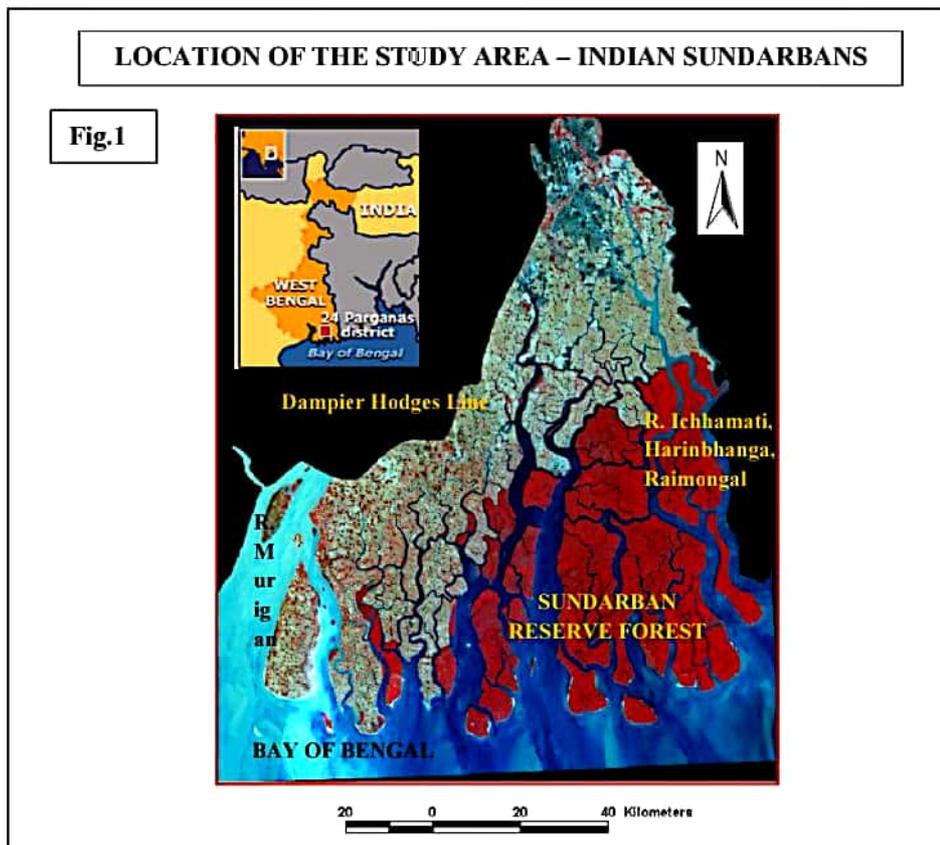


natural changes like relative sea level rise, coastal erosion and submergence, frequent embankment failures, rise in high intensity events like cyclones, rise in salinity level because of climate change issue. Coupled with this, there has been a tremendous population growth in the last 50 years in this island system leading to major degradation and wide scale reclamation activities. The region is also experiencing major land use changes in different community development blocks in the last 20 years to earn an assured livelihood. The major problems identified in this economically depressed zone of West Bengal State in India are lack of adequate protection against tides and waves resulting in unwanted inundation of the land causing occasional damage to crops; loss of life and property of the inhabitants; difficulties in maintenance of the only protection of earthen embankments; insufficient sweet water resources, lack of adequate job opportunities agriculture and or fishery. As an outcome of the tidal upheaval driven by Aila, almost 400 km of the existing dykes got damaged. The situation further worsened during May 2020 when Amphan Cyclone hit the Sundarbans. All these have contributed as major hindrances for the overall development of the region inspite of having immense natural resources.

Under this backdrop the present study has attempted to identify the major challenges to sustainable agricultural practices in the region which is till date the main stay of the inhabitants of the island system. The Sundarbans region is basically a mono crop area dependent on rain-fed aman paddy. However, the yield of the paddy has got affected at many locales of the region due to uncertainty in the onset of monsoon rainfall, saline water intrusion at the time of inundation of the low lying agricultural fields and size of landholdings. The intrusion of saline water mostly occurs during cyclonic events which leads to total crop loss in the low lying agricultural fields.

2. Study Area Selected:

The study area selected here is the Indian Sundarbans part lying in the West Bengal state encompassing an area of 9530 sq. kms spread under nineteen community development blocks thirteen of which lie under South 24 Parganas district and the rest six lie under North 24 Parganas district. The region is delimited in the north by the so-called 'Dampier-Hodges line' demarcating the northern extension of the intertidal zone marked by mangrove forests of 1830. This line closely corresponds to Kakdwip – Basirhat – Dhaka lineament picked up from satellite imagery (Chakraborty, 1991). In the south, the Sundarbans is bound by the Bay of Bengal. The river Hoogly (in the west) and the river Harinbanga– Raimangal – Ichamati (in the east) demarcate the western and eastern boundaries respectively. The Indian Sundarbans has 4264 sq. kms. of wetland/mangroves covered under the reserve forests and the rest i.e. 5366 sq. kms. is under reclaimed area used for human settlements.



3. Objectives Framed

The prime objective of this study is to make a preliminary evaluation of different challenges that the major production system- agriculture is facing in this ecological region to sustain under climate change situation.

The queries that have been designed to attain the prime objective includes the following:

1. What is the condition of population pressure in the Sundarbans? Is there any change in the occupation pattern in the island system under the climate change scenario ?
2. What is the probable impact of climate change on the major production system of agriculture in the region?
3. What are the feasible adaptation strategies to arrest the negative effect of climate change on this production system?

4. Methodology Followed :

This study is based both on quantitative and qualitative assessments. The study is based on secondary data and information collected from literature survey and newspaper reports, policy documents. Primary data have also been collected through in-depth interviews of stakeholders conducted in the field at some inland and coastal locations and over phone with few migrants who have experienced the twin impacts of the cyclone and the lockdown. The stakeholders interviewed were selected specifically from the Community Development (CD) blocks of Patharpratima, Namkhana and Sagar, South 24 Parganas and Sandeshkhali II,



North 24 Parganas, with the help of a network of key informants from local community-based organizations. These blocks were badly affected by storm surge during cyclone *Amphan* in 2020 as well as during cyclone *Aila* in May 2009. Stakeholders included people from different occupations like agriculturists, fishermen and aquaculturists. A total of 249 persons were interviewed from six different locations across different community blocks running a structured questionnaire to assess the negative impacts of climate change on yield of different agricultural crops in the region. The surveys were carried out in the pre and post *Aila* cyclone phase in the years 2006, 2008, 2015 and 2019 at these six villages to assess the villagers perception about the status of agricultural production in the island system.

The secondary information were collected from different annual reports, Statistical Abstract of West Bengal 2005, 2008, 2012-13 and 2014-15 and Statistical Handbooks of North and South 24 Parganas, 2009 published by Bureau of Applied Economics and Statistics, GoWB. Census data for the years 1991, 2001 and 2011 were collected from Primary Census Abstracts of North and South 24 Parganas districts. In addition to these, secondary information pertaining to the current study were also collected from Sundarban Development Board and Sundarban Affairs Department, GoWB. Statistical Analysis of the collected data have been done chiefly by Microsoft Excel.

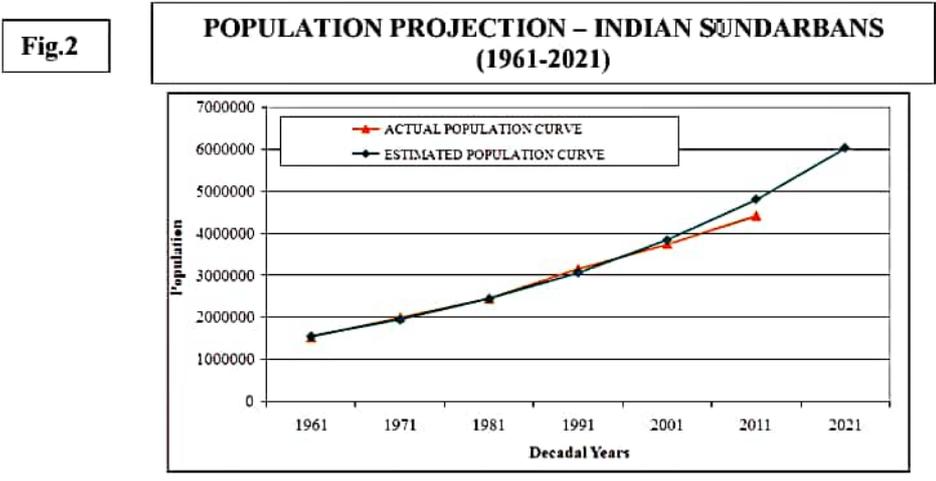
5. Results and Discussions :

5.1 Rise in Population Size :

Sundarbans had a population of around 4.4 million (2011 Census) accounting for 4.85% of the total population of the state (9,127,6115). Here, population seems to be doubling itself in 30-40 years. Indian Sundarbans has registered a population rise of 281.72% in 2011 since Independence (against the state figure of 247.06%). In 2001, the Population Density in Indian Sundarbans was 897 persons per sq. km. and in 2011 the population density figure rose to 996 persons per sq. km. which indicates a sharp rise of 11.04% within 10 years.

In absence of the published Census data of 2021, the present study has tried to assess the population size in 2021 and based on previous Census data, the population projection indicates that that the region might have experienced a population explosion with nearly more than 60 lakhs of inhabitants in 2021 -- a growth of 36.38% from the population figure of 44 lakhs (2011 Census).

Inspite of the problem of open vulnerability, based on previous Census data, it is further anticipated that the coastal blocks like Sagar, Namkhana, Patharpraima, Kultali and Gosaba might have experienced a greater population rise compared to the inland blocks.



Data Source : Primary District Census Handbook North and South 24 Parganas, West Bengal 1961, 1971, 1981, 1991, 2001 and 2011

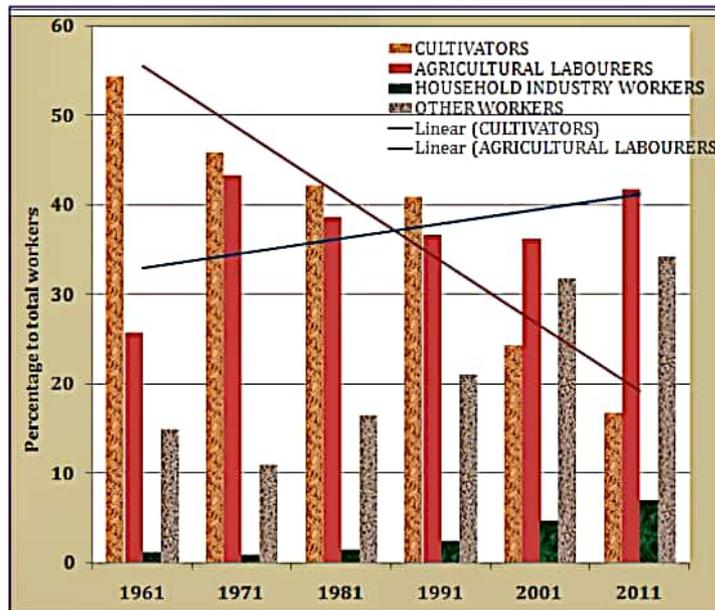


5.2 Marked Changes in the Occupational Pattern

Indian Sundarbans has experienced a marked change in the occupational pattern in the last seven Census years starting from 1951 to 2011. The percentage of cultivators has declined steadily in the region while there has been a rise of agricultural labourers whose per capita per month income is still very low to earn a sufficient livelihood for the family. This is further reducing the coping capacity of the people to tackle the natural changes which are becoming frequent under climate change situation thus rising the social vulnerability of the inhabitants overall. In addition to agricultural labourers the people engaged under household industries and other occupations like tourism, transport sector, construction activities, delivery jobs are also rising in the community development blocks of Indian Sundarbans.

Fig.3

OCCUPATIONAL PATTERN – INDIAN SUNDARBANS (1961-2011)



Data Source : Primary District Census Handbook North and South 24 Parganas, West Bengal 1961, 1971, 1981, 1991 , 2001 and 2011

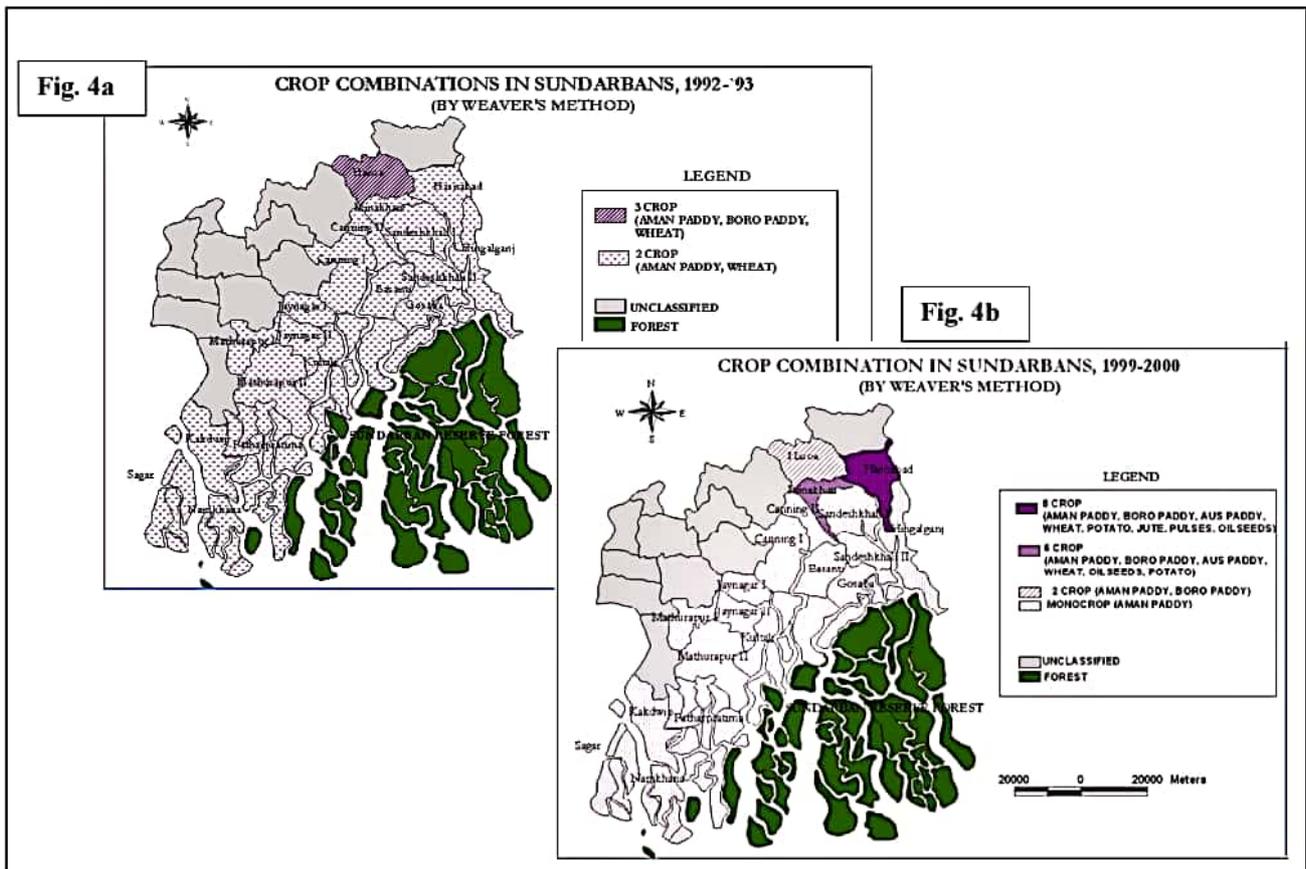
5.3 Salient features of the Agricultural Production system and the related problems

5.3.1. Crop Pattern

Almost the whole Island system is dependent on a single crop – the rain fed ‘Aman Paddy’. Though there have been several efforts to raise a second rice crop in the winter (boro paddy) and summer months (Aus paddy) to boost agricultural production in subsequent seasons, this has not been very successful. The farmers in different inland and coastal villagers have opined that rise of salinity and lack of fresh water availability for irrigation together with small size of landholdings are the prime causes behind the low crop

diversification in the island system . In addition to these, water logging and drainage problems; susceptibility of the second crop to insects and pests or even the sharp fluctuations in prices have made the agriculture unremunerative in the region.

An attempt was made to study the change in the cropping pattern if any during the 90's decade from secondary data (District Statistical Handbook 24 Parganas S & N, 1992-'93 & 1999-'00) by applying suitable statistical techniques (Weaver's Crop Combination method). The resultant Crop Combination Maps of the region revealed that, even during 1992-'93, Sundarban was predominantly a two-crop region where aman paddy was grown in association with wheat (Fig. 4a). During 1999-2000, the whole of Sundarbans (excepting the blocks of Hasnabad, Minakhan and Haroa lying under North 24 Parganas) has turned totally into a monocrop region (Fig. 4b) producing only rain-fed aman paddy. The trend is continuing till date. Similar observation was also been made by Mirchandani, 1971; Patel, 1979 and Nanda and Rai, 1979, who opined that in Sundarbans even during 70's and 80's, there was much crop diversification and varieties of crops like barley, finger millet, pearl millet, chilli, water-melon, cotton and vegetables were grown besides paddy with limited water supplies. However, at present though crops like wheat, pulses, barley, chili, jute, potato are still grown in some parts of Sundarbans, they constitute a very meager proportion of the total agricultural production.



5.3.2 Status of Net sown Area, Cropping intensity and yield of Aman and Boro paddy

Majority of the Indian Sundarban blocks belong to South 24 Parganas district. In absence of continuous time series block wise data on net sown area, cropping intensity and yield rates of aman and boro paddy , the present study has tried to observe the trends under

these heads at the district level . Data analysis has revealed that the net sown area in both North and South 24 Parganas district have both decreased at the post Aila Phase i.e. after 2009 (Fig. 5a). However the cropping intensity and the yield of both Aman and Boro paddy have increased within the same time frame (Figs. 5b and 5c). This may be due to the use of High Yielding variety of seeds (provided by the Agricultural Department, GoWB)and application of chemical fertilizers and pesticides to boost the production .

Fig. 5a

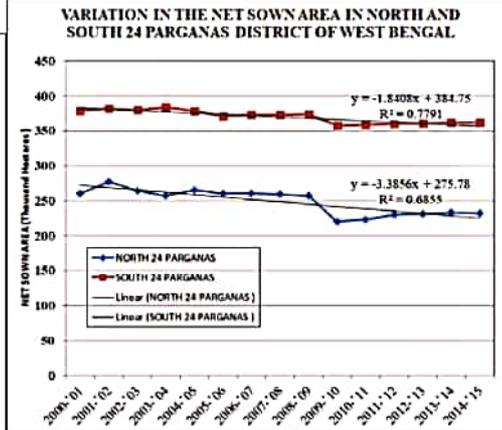


Fig. 5b

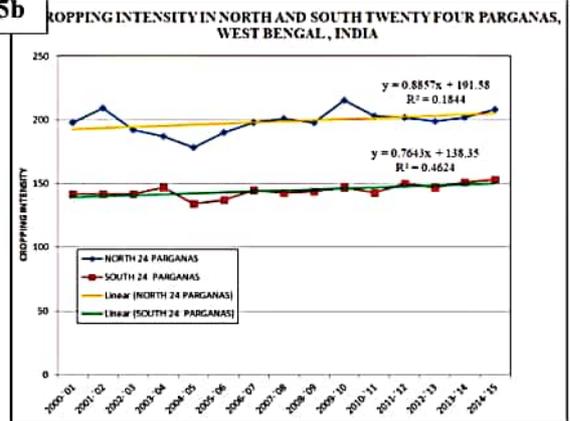
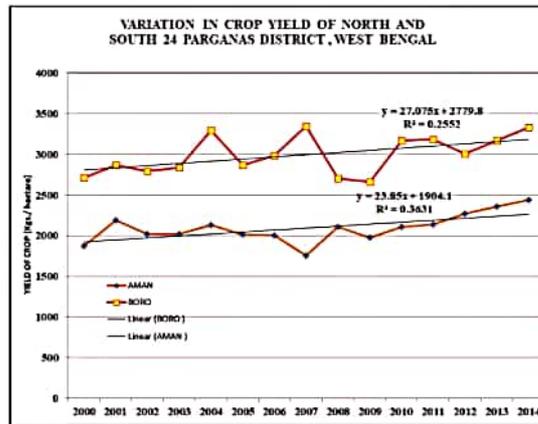
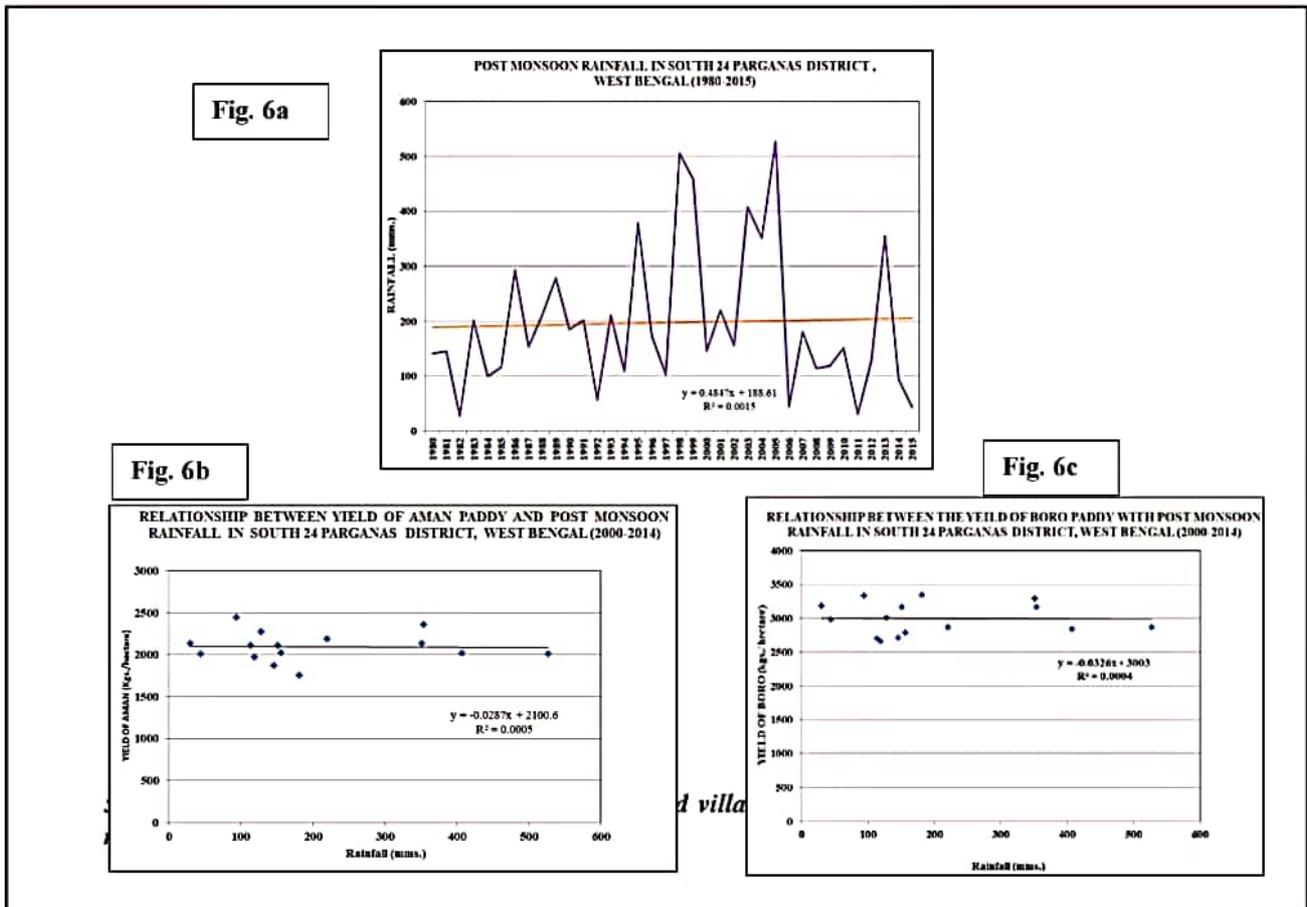


Fig. 5c



5.3.3 Relation of Aman and Boro paddy yield with Rainfall

Based on the monthly rainfall data available for South 24 Parganas district (Centre – Alipore) where majority of the blocks belong to Indian Sundarbans part, it is observed that the post monsoon rainfall (rainfall summed up for October, November and December months as defined by Indian Meteorological Department , GOI) is showing a rising trend from 1980 to 2014 (Fig.6a). However , when regressed with the productivity of aman and boro paddy with post monsoon rainfall for South 24 Parganas in the period from 2000 to 2014, it was observed that both Aman and Boro paddy yield are showing a slightly declining trend (Fig. 6b and 6c) with the rise of post monsoon rainfall. This is really a striking feature and will certainly add to the vulnerability level of the farmers in the region under climate change scenario.



From the field surveys conducted in different rounds -2004, 2006, 2015 and 2019 in six different villages of coastal and inland blocks and through soil analysis (of the soil samples collected from agricultural plots), it was found that in general the soil of the agricultural plots (devoted under paddy cultivation) in all the locations is more or less acidic in nature. The soils devoted under rabi crop cultivation are less acidic and more basic in nature. As mentioned by Linghe and Shanon, (2000), the tolerance limit of the salinity level for paddy cultivation has been considered to be 2 ds/m. On the basis of this tolerance limit of salinity for paddy cultivation, the salient observations that were made from the study include :

- In all the inland (excepting Dhamakhali village of Sandeshkhali II block) and coastal villages, the salinity level of the soil collected from agricultural plots (where paddy is cultivated) is well within the tolerance limits for both top (within 0-15 cms. from the surface) and bottom levels (> 15 cms. from the surface).
- However, in Dhamakhali village of Sandeshkhali II block under North 24 Parganas district, an average salinity level of 2.585 ds/m for top soil and 2.035 ds/m has been noticed from the small agricultural plots (comprising only 0.17 % of the total area)



which were devoted under paddy and rabi crops exceeding the tolerance limit of salinity for paddy cultivation. From primary survey, it was revealed that the village faced tidal water ingress 8/10 years back (from the date when the survey was carried out in May, 2005) which rendered the agricultural plots to remain fallow for the next three consecutive years. No sort of cultivation was possible in the plots due to tidal water ingress. To earn the minimum livelihood, people were thus forced to convert their agricultural plots into aquaculture farms.

The surveys further carried out in 2015 and 2019 in the same village observed that no single agricultural plot exist in the village and all the agricultural plots have either got converted to aquaculture farms or blicklin fields .

The primary surveys also revealed that there doesn't exist much difference in the soil conditions of coastal and inland areas. Similar to inland locations, in the coastal villages also, the paddy fields in general is characterized by acidic soils while plots devoted under rabi crop cultivation are less acidic and more basic in nature.

The soil salinity data with annual production, income and profit as found during primary surveys through stakeholder's interviews are provided below in Table 1 .

Table 1 :SALINITY STATUS, ANNUAL PRODUCTION , ANNUAL INCOME AND ANNUAL PROFIT FOR AMAN PADDY CULTIVATION IN DIFFERENT LOCATIONS

Villages and Community Development Blocks	Location	Salinity (ds/m)		Aman Productivity (kgs./hectare)	Annual Production Cost/ha. (Rs. in '000)	Annual Income (Rs. in '000)	Annual Profit earning (Rs. in '000)
		Top	Bottom				
1. Lebukhali, Basanti Block	Inland	1.195	0.546	3400	70-75	90-95	15-20
2. Dhamakhali, Sandehkhali	Inland	2.585	2.035	2900	80-85	90-95	5-10
3. Baromollakhali, Gosaba	Inland	0.2505	0.3015	3787	60-65	80-85	20-25
4. Bally, Gosaba Block	Inland	0.1855	0.3105	3200	60-65	85-90	25-30
4. Debnibas , Namkhana	Coastal	10.220	1.651	3649	65-70	85-90	20-25
5. Lakshmipur Abad , Namkhana Block	Coastal	0.225	0.454	3335	70-75	85-90	10-15

Source Field Survey

The above data indicates that the average salinity level in Dhamakhali village is more than the tolerance limit of salinity for paddy cultivation (2.0 ds/m). This has affected the average aman paddy yield in this locality. The annual production cost of paddy per hectare is also relatively higher than all other inland and coastal villages in Dhamakhali (due to high



salinity level of the soils). The profit margin is lowest in Dhamakhali village from paddy cultivation – the reason why the villagers are fast reverting to aquaculture practices.

The farmers at different locations have opined that the uncertainty in the monsoon rainfall, rise of salinity due to coastal inundation at the time of cyclonic events (through breach of embankments) and size of landholdings are the prime reasons behind the cause of agriculture getting non-remunerative day by day . The crop diversification is still very low in the locality and the farmers lack the knowledge of introducing salt tolerant varieties of rice to sustain the agricultural practices in the island system for long in the future .

5.3.5 Landuse Pattern Change :

Study of satellite data for the years 1986 and 2004 (IRS LISS I image 1986 and IRS LISS III image – 2004) has further revealed a havoc change in the landuse pattern in different islands of Indian Sundarbans. The percentage of agricultural area is sharply declining while the proportion of aquaculture farms are rising at the expense of agricultural fields.

In coastal blocks there has occurred a marked increase (164.65%rise) in aquaculture area from 1986 to 2004 (40.76 sq. kms. in 1986 to 107.87 sq. kms. in 2004) compared to the inland blocks of where there has only been 42.87% rise. This may be due to saline water ingress in the agricultural fields making the fields infertile. Island wise change in agricultural and aquaculture areas are provided in table 2 (below)

Table 2: CHANGE IN THE AGRICULTURAL AND AQUACULTURE AREA IN DIFFERENT ISLANDS OF INDIAN SUNDARBANS (1986-

ISLANDS	% CHANGE IN AGRICULTURAL AREA (1986-2004)	% CHANGE IN AQUACULTURAL AREA (1986-2004)
Namkhana	-18.27	4.434
DakhinGopalnagar& other	-33.63	6.394
Banashyamnagar	-31.81	5.077
DakshinSurendranagar	-14.29	6.807
Rakhalpur	-19.42	3.488
Jharkhali	-12.07	3.405
Arapur	-26.44	4.428
ChotaMollakhali	-6.1	3.372
Mitrabari	-11.97	7.047

Source: Satellite Data - IRS LISS I Image 1986 and IRS LISS III Image 2004

6. Concluding Remarks

The agriculture in Indian Sundarbans is chiefly a mono-crop system having very low crop diversification. Till date more than 50% of the people are dependent on this major production system to earn their livelihood. However, this agricultural system is getting vulnerable and non-remunerative day by day in the Sundarban eco-region due to such natural changes as uncertainty in monsoon rainfall , rise of salinity and lack of freshwater supply for irrigation , very small landholdings and very low crop diversification. The farmers are fast reverting to alternate employment opportunities to earn their livelihoods and there has been a



major conversion of agricultural fields to aquaculture farms in different inland and coastal villagers just because of the natural changes undergoing under climate change situation. Thus to sustain this major production system in the island area and to avoid the food insecurity problems in the future the local administration with the Agricultural Department, GoWB should design some feasible management strategies. As suggested by Krishi Vigyan Kendra of Kakdwip, the transition from subsistence cropping to diversified cropping by including legumes, oilseeds and vegetables in the cropping system can bring some definite returns to land and labour. This may reduce the risk of soil degradation through the use of soil nutrient replenishing legume crops in the cropping system. Historically the salt-tolerant paddy varieties like Talmugur, LalGetu, and Malta were cultivated on raised sections of lands in the Sundarbans. The salt-tolerant varieties like Hamilton and Malta varieties of paddy in the Sundarbans may be reintroduced to make the agriculture system more remunerative and suitable in the near future under climate change situation in Indian Sundarbans.

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DISABILITY AND SOCIETY: A RE-READING OF FAULKNER'S *THE SOUND AND FURY*

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Abstract:

The narratives of William Faulkner's few novels, such as The Sound and Fury, The Hamlet and Sanctuary highlight how society dehumanizes the 'disabled' persons by treating them as animals and excluding them from their 'normal' territory. These novels also show the author's empathetic attitude towards them. This paper would focus primarily on the character of Benjamin Compson in The Sound and Fury (1929) to demonstrate that autistic people who belong to the intellectual disability group or learning disability group form a minority group and the 'normal' people, who form the majority group or dominant group, label persons like Benjamin as 'idiot', 'stupid' or 'fool', and treat them as animals, completely ignoring the fact that they are different neurologically as men and women are different biologically and 'different' does not mean 'abnormal'. This paper also try to explore how Faulkner by using different narrative techniques e.g., stream-of-consciousness technique, first person narration or by using omniscient narrators lays bare before us the consciousness of Benjamin to show that the world of autistic persons is pure, innocent and timeless, just contrary to the complex and manipulating world of the neuro-typical persons. In other words, this paper would endeavour to show how through this novel and various narrative techniques the novelist has highlighted the 'disabled' attitude and behaviour of the 'normal' persons towards the neurodivergent people which has the paradoxical effect of drawing our attention to the humanity and sentiments of autistic character.

Keywords: Disability, neuro-typical, autistic, neuro-diverse, different, dehumanize, animality.

(Paper published on 1st December, 2023.)

In the novel, *Sound and Fury* (1929), the novelist has employed multiple narrators involving stream-of-consciousness technique to explore the incidents of the Compsons, a plantation family in Mississippi just 50-60 years after the abolition of slavery in the United States. One of those narrators is Benjamin Compson, a 33 year old person and it is through his perspective or consciousness we are introduced with the members of the Compson family, their neighbours, and servants because the novel opens with his narration. We also come to know from his narration that his modes of communication are wailing, 'bellowing', moaning and whimpering. His family members and the caregivers decide what he wants or needs without much obvious effort to understand the meaning of his gestures. The later three sections of the novel have been written from the perspective of Benjy's two brothers, Quentine and Jason, and an omniscient narrator. These sections confirm the incidents which have been written through Benjy's consciousness and, at the same time, in every section there are evidences that he suffers from a disorder and this disorder has much similarity with autism.

But before delving deep into the autistic consciousness of Benjamin, I would like to define autism and its characteristics first. Autism was first described by the American



psychologist Leo Kanner (1943) and by the Australian pediatrician Hans Asperger (1944). From the clinical perspective, as Elisabeth L. Hill and UnaFrith have suggested, autism is a neurological and developmental disorder that is lifelong. It is not a disease. So, naturally it is not treatable or curable. This disorder has a neurological basis in the brain and genetic causes play a major role but it is defined using behavioural criteria. In addition, autism is frequently associated with other psychiatric symptoms and disorders such as anxiety, depression, attention deficit disorder, intellectual disability, motor incoordination etc. The clinical picture of autism varies in severity and there is now general agreement that there is a spectrum of autistic disorders (ASD) ranging from low functioning to high functionality (281-282).

The chief criteria for autistic disorder as referred in the diagnostic handbooks, such as ICD-10(WHO 1992) and DSM-IV(American Psychiatric Association 1994), are impairments in social interaction and in verbal and non-verbal communication and a restricted repertoire of interests and activities, repetitive, restrictive and obsessive behaviours as well as rigidity and perseveration, all present from early childhood. Bauman & Kemper, the child neurologists reported that there are evidences that their brains are structured differently And their brains function differently and they perceive, understand and react to the world in a different manner (qt.in Hill, 282). Hughes & Russell in 1993 reported that they are good in rote memory, while on many tasks of executive function such as planning, impulse control, shifting set and the initiation and monitoring of action as well as in 'common sense' comprehension, their performance can be surprisingly poor. On the other hand, the behavioural problems of rigidity and perseveration faced by autistic individual enable them to carry out routine actions excellently (284). However, what Hill has said in this respect is worth-quoting: "...the tests of executive function that they have employed have not been problematic for all autistic individuals with normal IQ levels" (285). This report of Hill proves that all autistic individuals are not intellectually disabled and each and every child is unique.

We know that savant is an individual with an islet of outstanding skill in one area. Rimland and Fein in their research have proved that 10 percent of autistic individual are born with savant skill and almost all savants are diagnosed as suffering from autistic disorder (52). They have also reported the heightened sensitivity of autistic individuals to minute differences in stimuli. All these characteristics of autism suggest that there are cognitive strengths as well as weaknesses in autistic individual.

However, hope for elucidating the causes of autism lies in genetic studies. Recent research in this area has highlighted the existence of a broader cognitive phenotype of autism (Bailey et al. 84). Baron-Cohen & Hammer (1997) reported that the parents and siblings of children with autism showed a similar profile to those with autism on few tasks which the autistic individual find challenging (qtd. in Hughes et al. 1999).

From the above discussion, we can say that because of their different neurobiology, they are different and they have weaknesses as well as strengths just like other people have. But they are neurodivergent and form a minority community whereas the non-autistic persons, belong to the category of neuro-typical and they are the majority.

But objectifying the body and mind the medical professionals labeled the differences as deficiencies and 'defective bodies and minds' as 'dangerous' and 'threatening' to the rest of society and the individuals were stigmatized as 'disabled' (Barnes and Mercer 32). Six or seven decades ago impairment was perceived as a threat to social progress, and people with severe impairments were classified as mutant, subjecting them to correction ranging from segregation to sterilization(qt.in Hill 292). Moving beyond the medical curriculum, Disability



Studies starts looking outward setting off a 'socio-political-cultural examination of disability' (Linton). The social construction theorists claim that the medical model overlooked the self for body, reducing body to a non-social identity. It questioned the organization of biological differences into social constructions as 'normal' and 'non-normal.' In general parlance, the term disability refers to a physical or psychological condition considered to have predominant medical significance. But Simi Linton maintains that the usage of the word disability in Disability Studies is radically different from the general usage. According to her, the term disability here does not refer to the biological condition located within the individual, but to the act of repudiation of ability by the society. Thus, 'dis' connotes a particular social arrangement that signifies the act of exclusion perpetrated by the society on the individual. According to this definition, "we are all disabled in some way, aren't we?" (Gill 134). To say precisely that a person is physically or mentally challenged is to state that the obstacles to his/her participation are physical, but not social and the barrier is her/his disability. But to say, that a person is disabled is to indicate that the obstacles to her/his participation are largely social, though these obstacles partly emanate from his/her impairments. Michael Oliver, one of the key theorists of the social model argued that the separation of impairment and disability is 'primarily a pragmatic attempt to identify and address issues that can be changed through collective action of the society rather than medical or other professional treatment' (cited in Barnes and Mercer). In other words, it is society that disables impaired people, and disability as a social construct is something external and imposed on the impaired, leading to the isolation and exclusion of the impaired from full participation in society. The manifesto of the Union of Physically Impaired Against Segregation (UPIAS), titled *Fundamental Principles of Disability* (1976), equates such exclusionary practices with discrimination and oppression and declares the disabled people as an oppressed group.

Keeping in mind the above discussion, I would like to show how Benjamin or Benjy is ostracized by the society for his 'differences', for not being able to communicate by words and for his challenging behaviours which actually result from his being 'dis' able to communicate properly.

We come to know from his narration that most people including his brother, Jason, call him 'loony' or 'idiot' and nobody, even his mother, is not there to differ it (Faulkner 18). Benjamin is sometimes treated as an animal by his servant Luster: "You old loony... You want me to whip you" (Faulkner 23). Sometimes a thirty three year old person is treated as a child by his servant: "If you don't hush up, mammy ain't going to have no birthday for you. If you don't hush, you know what I going to do. I going to eat that cake all up" (Faulkner 12). Above all his mother not only worries about him but also considered him as her sin: "It's a judgment on me. I some-times wonder" (Faulkner 13). In his presence, everyone passed comment on him assuming that he did not understand or feel anything. But it is through Benjamin's narration, we come to know all these facts. We also come to know that he could not communicate orally. We know that an autistic person finds it very challenging to communicate whether he is verbal or non-verbal and people assume that he cannot understand anything. As an autistic person cannot communicate properly, he suffers greatly from anxiety and depression. Threatening and unloving words make him more depressed and anxious.

But it was Caddy, his sister who loved and cared him truly and vice-versa. So in the novel when he first introduced us to Caddy through his consciousness or memory, we find that Caddy took care of him when she found him exposed in cold by rubbing his hands and was trying to understand him: " 'Did you come to meet Caddy.' She said, rubbing my hands. 'What is it? What are trying to tell Caddy?'" (Faulkner 14). Then Caddy guessed the probable



reason of Benjamin's going out in the cold and she explained him that he was mistaken. Benjy understood his mistake and returned home with her. This incident also proves the notion false that autistic person does not understand anything or they are 'idiot'. Again during the same incident we find that the worried mother forbade Benjy to go out again but when Caddy insisted that if Benjy was not allowed to go outside with her, he would cry. Then the mother's statement shows it clearly that Benjy can understand anything: "Then why did you mention it before him"(Faulkner 15). It was a mother's natural concern and affection for her weak child which leads her to call Benjy "My poor baby" (Faulkner 16). But Caddy's love for his brother was overwhelming. She hugged him and said: "You're not a poor baby. Are you. You've got your Caddy"(Faulkner 16). Caddy was his comfort zone; his shelter. Caddy not only loved her but also understood him well. She tried to converse with him, rather explained everything which came into their way. In short, Caddy understood him and gave him unconditional love and acceptance and in her company Benjy was very happy.

But it had been a long time since Caddy left him. But it is her memory that never leaves him. He misses her very much because no one accepts him as he is and loves him wholeheartedly as Caddy loved him. As a result, the mention of the very word 'Caddy' makes him crazy even after 15 years of Caddy's departure and he tried to find her out. It is her memory that still makes him to cry and moan. But nobody tries to understand the reason behind his moaning or crying, rather labeled him stupid or idiot and ordered him to hush up. As Luster and his friend conversed in his thirty three birthday: "Luster said; 'Hushup'. 'What he moaning about now.' 'Lawd knows. 'Luster said. 'He just starts like that. He been at it all morning. Cause it his birthday, I reckon.'"(Faulkner 22). He misinterprets his behaviour and ignores him.

Again, in their boyhood/girlhood when they were playing and they, especially Quentine, were afraid that they may be whipped off because they had got their dresses wet, Caddy desperately said that she did not care: "I'll run away and never come back" (Faulkner, 24). Having heard this, Benjy began to cry but as soon as Caddy asked her to 'hush', he 'hushed.' Two things become evident from the above incident. Firstly, Benjy is not an idiot as he had the ability to understand what Caddy said and his reaction after hearing Caddy's statement was proper and natural because nobody likes to be separated from his/her loved ones. Secondly, he immediately followed the instruction given by Caddy. It also establishes the fact that he comprehended language properly and behaved accordingly.

Apart from Caddy, it is Dilsey, their black maid servant, who loved and understood Benjy a lot. So when Ruskas comments that "they ain't no luck going to be on no place where one of they own children's name ain't never spoke," Dilsey protested immediately and made him to stop: "Hush... Do you want to get him started"(Faulkner 35). This line bears evident to the fact that Dilsey understands Benjy and she knows that these words would dishearten Benjy because he is not a feeling less human being. During the same conversation, Ruskas also made a comment which is very significant from the perspective of autism. He said: "He knows lot more than folks thinks... He could tell you when ... coming, if he could talk" (Faulkner 35). This statement makes it evident that Benjy is not intellectually disabled. Again at his 33 birthday, it is Dilsey who purchased with her own money a cake and candles to celebrate Benjy's birthday. There are his mother, Brother Jason and niece Quentine who do not come to celebrate his birthday. He was deprived of their love. Here Dilsey serves as a foil to her mother and expresses a black, illiterate woman's love and compassion for a white person who needs love and support in life.

During the swing episode in his boyhood, Benjy 'smelt' something wrong when he found out Caddy with Charlie. Charlie took him as an intruder and remarked: "Where's his



nigger...What do they let him run around loose for” (ibid 49). Luster’s friend remarked: “Why don’t they lock him up. ...What’d you bring him out here for” (ibid 51). These statements bring before us an image of a madman or a wild animal which has been letting loose posing great danger to humanity. To the world, Benjamin is nothing but an animal or a mad man to the world and his actual place is asylum: “They going to send you to Jackson, where you belong... Where you can hold the bars all day long with the rest of the looneys and slobber” (55). Again in Caddy’s absence when he was sent to Mrs. Patterson to deliver the letter of Uncle Murray, he was treated harshly by the lady. So everywhere he is called as ‘idiot’ and people misbehave with him. Thus it is through Benjy’s consciousness we come to know how neurodivergent people are denied minimum respect as human beings from society.

But one thing must be noted that Benjamin has not grown up mentally even at the age of thirty three. So Luster scolded him: “Ain’t you a grown man, now... Playing with two weeds in a bottle.” As the disorder is a spectrum, we find so many autistic persons who do not grow mentally and they belong to a timeless world. Here I would like to quote Faulkner. During an interview, he said: “ To that idiot, time was not a continuation, it was an instant, there was no yesterday and no tomorrow, it all is this moment, it all is [now] to him. He cannot distinguish between what was last year and what will be tomorrow, he doesn’t know whether he dreamed it, or saw it” (Meriwether and Millgate 80). This remark of the creator of Benjy reminds us the concept of living in a nonverbal sensory stream propounded by Olga Bogdashina in his book *Autism and the Edges of the Known World*. Here Benjy’s mental age is not like the non-autistic persons of his age. But his experiences in the family and society have left an indelible impression in his mind. One thing should be noted here. Before Asperger termed such persons as autistic, they were called as ‘idiot’. So, one should keep in mind here that Faulkner did not use the word in a derogatory sense.

However, helplessness of Benjy for being non-verbal has been highlighted in the incident when he tries to find Caddy even after her departure from the house in a group of girls wearing school uniform. He tries to communicate with them: “I tried to say, but they went on, and I went along the fence, trying to say, and they went faster... I couldn’t go any further, and I held to the fence, looking after them and trying to say” but they misunderstand him and he again is compelled to listen some cruel, unloving words. (53).

It is true that Benjy’s narrative is incoherent but it is also an undeniable fact that stream-of-consciousness technique lays bare our consciousness incoherently whether we are neuro-typical or neurodivergent.

As I have already mentioned, the autistic person sometimes face heightened sensory issues. Some autistic persons possess savant skill as well. So when he says, “I could smell the cold”, “Caddy smelled like leaves”, “Caddy smelled like trees”, “father smelling like rain”, “I could smell the sickness”, “I could hear the dark”, we feel his heightened sensory feelings as well as his savant skill (Faulkner 13). Through Benjy’s another brother, Quentyn’s consciousness we also come to learn about the extraordinary quality of Benjy. As Caddy informs Quentyn: “He smell what you tell him when he want to” (84). This remark of Caddy aroused deep concern in Quentyn’s heart for Benjy’s future, for his fate: “Can he smell that new name they give him? Can he smell bad luck?” (Faulkner 84). To be born in such a society, where people who form the majority or dominant group have no respect for ‘others’ is of course bad luck for the ‘others’, and this concern had been voiced by Quentyn in the aforementioned line. Quentyn also claimed that he [Quentyn] could smell water. Apart from this skill, his suicide as well as Caddy’s whimsical activities prove that they are not good in executive planning (ibid. 84) and it reminds us the fact that non-autistic siblings of autistic



child can share some qualities which prove the genetic prototype theory. Quentine also informed us that Benjy cried when Damuddy had died (Faulkner 85). Quentin's remark bears evidence of the fact that the neuro-divergent people are not emotionless. Quentine also felt guilty for selling the ground where Benjy used to lay under the window (Faulkner 89). He also remembered his mother's attitude to Benjy.

However, among his three siblings, it was Jason who had no love for Benjy. Through Benjy's narration we came to know, he recommended his father to send him in an asylum. In the third section, Jason even went on to tell his mother, "Rent him out to a sideshow; there must be folks somewhere that would pay a dime to see him." He treated Benjy as a burden and shame to the family but his insistence to send him asylum becomes more unbearable when he suggested her mother: "... it don't take much pride to not like to see a thirty year old man playing around the yard with a nigger boy,... lowing like a cow whenever they play golf over there... So why not send him there and get that much benefit out of the taxes we pay" (Faulkner 199). So, Jason's objective to send Benjy is not only to get rid of a burden but also to gain monetary profit. He is so inhuman that he even satirizes her mother by saying that she had got Ben to depend on him (Faulkner 232). We know that Ben had to depend on others' support for his living. He could not be independent in life. At thirty three, he needed someone even to dress him up (Faulkner 241). Neurodivergent people, sometimes, need to depend on others for their living. At the same time, it should be remembered that all neuro-typical persons have to depend on others for their daily living if they enjoy long lives.

A neuro-divergent boy cries when some loved ones separate from him. He is pure and innocent but a neuro-typical becomes so heartless, so crippled in his attitude, so manipulating that hemistreats his own 'different' sibling as an object, as an animal or mad man and wanted to gain profit by sending him to an asylum. Here Jason represents the societal attitude towards autistic persons. This attitude is crippled, rather 'disabled'.

Now, if we try to find out the author's attitude to such persons like Benjy through the omnipresent narrator in the last section, we become stunned to find that even in his physical description, the author resorts to animal imagery. The narrator tells us that his skin is dead-looking and hairless; dropsically too, he moved with a shambling gait like a trained bear (Faulkner 244). At the same time, we do not fail to notice the phrase, 'with his sweet vague gaze.' During breakfast, it was Dilsey who lovingly called her 'honey (ibid 244).'

At the end of the novel, when the window of the Jason's room is found broken and so much sound and fury is there in the house, Benjy became depressed but it is Dilsey who orders Luster to keep him away from the environment because it will make Benjamin more anxious. During this episode, what the narrator comments is worth-quoting: "Benjy wailed again, hopeless and prolonged. It was nothing, just sound. It have been all time and injustice and sorrow become vocal for an instant by a conjunction of planets" (Faulkner 255). His bellowing symbolizes 'all voiceless misery under the sun' (Faulkner 280). Here Faulkner's attitude to the oppressed group is very straightforward. Benjy's wailing and whimpering distinctly highlights the fact that oppressed groups never find way to live in their own way. They have to live at the will of the dominant group. They are voiceless. These marginalized groups are always disrespected and are denied their basic human rights. Benjy needs peace and he gets this in the church where the church-goers were all black. There "Ben sat, rapt in his sweet blue gaze" and Dilsey cried a lot in the 'blood of the remembered Lamb' (Faulkner 264). Reference to the Lamb, reminds us that the pure and innocent are always crucified and this complex world is still not ready to accept them. Lamb, the Blacks and Benjy – all merged into one. In this way, Faulkner revealed his love and respect for Benjy. At the same time he showed through the character of Dilsey what should be the ideal attitude of society towards



the 'disabled'. Dilsey represents the Christian compassion and love to the world. She loves him as if he was her own child: "Dilsey led Ben to the bed and drew him down beside her and she held him, rocking back and forth, wiping his drooling mouth upon the hem of her skirt" (Faulkner 280).

However, at the end of the novel, the image of the 'broken flower' reminds us the future of Benjy and his 'empty and blue and serene' eyes remain awake in our memory constantly reminding us that this world is not the proper place for the innocent, for the different.

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BEADS: A BRIEF STUDY FROM ECONOMIC PERSPECTIVE WITH SPECIAL REFERENCE TO THE GALO TRIBE OF ARUNACHAL PRADESH

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Abstract:

The present paper is a brief study on the importance of beads among the Galo People of Arunachal Pradesh. The Galo tribe is one of the major tribes of the state. They have various types of beads. In Galo dialect the beads are commonly known as tadok. The beads are considered to be one of the most treasured family heirlooms besides different types of brass plates, bowl, bells etc. Being a pre-literate tribe the Galo people do not possessed any written records regarding their migration process and whether they brought the beads with them or had they procure it after they got settled in their present homesteads. Therefore, it is observed that the Galo people have many folktales, folklores and folksongs related with the origin and cultural significance of the beads. However, the present paper is a brief study on the economic significance of the beads among the Galo people. Therefore, the present study does not discuss the beads from cultural and religious perspective.

The people consider those beads to be the most precious which they had procured from Tibet. In the olden days the people use beads as currency. During those days people have fewer beads as the beads were not easily available. So the person who possessed more beads was considered to be wealthy. Apart from the economic importance and the findings the present paper contains a short discussion on the migration theory of the Galo tribe of the state.

Keywords: Galo, beads, tadok, pre-literate, folktales etc.

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Introduction:

The Galo tribe is one of the scheduled tribe of Arunachal Pradesh. They are one of the tribes inhabiting the central cultural zone of the state. The tribe is found in four districts namely West Siang, East Siang, Lepa Rada, and Lower Siang. In the Indian Constitution (Scheduled Tribes) Order, 1950 the Galos were listed as a separate tribe from the Adi. Before 1950 the Galo tribe was known as Adi Gallong as till then the Galos and the Adis were assumed to be a single cultural unit. They were thought to be a single tribe. Though, the Galo people get recognition as a different tribe through Indian Constitution (Scheduled Tribe) Order in 1950 they were known as Galong. However, the Galo people were successful in getting the nomenclature Galong



changed to Galo in the year 2012. Like all other tribes of the state the Galo people also wear different types of beads. Before discussing the significance of Bead in the Galo society it would be worthwhile to explain the term Bead itself. Bead is a small piece of glass, wood etc with a hole through it, that can be put on a string with others of the same type and worn as jewellery etc.¹ Or beads can be perceived as natural substances with natural holes or the small fossilised crinoids segments with natural holes or even organic substances viz; wood, amber, coral, jet, shell, ivory, bone, the exception being pearls which are drilled to make beads. In addition to these, amber, coral, turquoise, jade, rose quartz, moonstones are used for beads.² It is found in different shape, size and colour.

Beads are found virtually in all the places inhabited by the humans. It would not be inappropriate if we say that beads were the earliest ornament used by the humans. Therefore, beads are very important from archaeological perspective also. In the very early time beads served as currency. Therefore, with the passage of time humans began to treasure beads as wealth. Apart from economic perspective the beads are attractive and ornamental making the owner more attractive and decorated than those who do not have beads or who do not wear beads. Humans are meaning-making and curious creatures who are attracted towards unusual and beautiful things. So, naturally beads began to attract the humans because of its beauty. Humans love to beautify things including themselves so beads became a very important part of their life. Beads became the ornamental thing to decorate its owner. *We are usually attracted to beads because they satisfy a human hunger for decoration, as small meaningful treasures they may have amuletic or talismanic properties, and since earliest times, long before money, they must have visibly displayed wealth and fulfilled acquisitive impulses even among early nomadic peoples. It's not different today, as our range of ways of self-adornment is constantly extended to new limits by demands for so-called 'novelty' by the fashion industry.*³ Beads make us feel special and beautiful. And it is a basic human tendency to feel special and to look beautiful. Beads enhance a person's clothing especially in the gone days. When cloths were not available people use to wear beads as much as possible. Substantiating it L.R.N. Srivastava also have written after observing the Galo people in 1960s ;

Every bead has its own value, according to its colour and lustre and very often, it is considered as the family heirloom. Sometimes, the bead necklaces are so numerous and heavy that, even if there is no cloth over the breasts, these bead necklaces easily cover them.⁴

In the context of tribal people still these days' beads are the most important treasure of a family. Not only from its money value but from family value also beads are very important for the respective family who own it. While tracing the migration route, beads are the most important source in revealing the migration story especially in the context of pre-literate people. Arunachal Pradesh is a land of distinct tribal culture and is a very vast state. Therefore for the



convenience in understanding the state it is divided into three zones. The state is largely divided into three important cultural zones viz; the Western zone, the Central zone and the Eastern zone.⁵ Irrespective of which cultural zone a tribe belongs virtually all the tribes possess beads of different types. Among the Galo people beads of different shape and size, colours, lustre could be seen. In the present paper the focus is in the economic importance of the beads therefore the types of beads would not be discuss any further.

Beads and the Migration:

The Galo tribe is a pre-literate tribe so their history is based on oral tradition. In the absence of written records their social memory is the only source to know about their migration pattern. One such oral narration believe that; "Long ago the Galo lived on the fringes of the Indo-Tibetan frontier. Streams of migrating families came down from time to time from upper areas and, in absence of adequate geographical knowledge, they followed the easiest track. Gradually, the lower areas gave them shelter and they slowly established permanent settlement. Marauding raiders from beyond the frontier raided their settlements very often, and, as they were, at that time, not very powerful in their military prowess in comparison with the raiders, they had to emigrate."⁶ Almost all the tribal groups of the Galos, the Adis as well as the Buddhist tribes of the Memba and the Khamba trace the course of their migrations to their present settlements originally from the north. The traditional stories are indicative of a general north-south trend of movements.⁷ Regarding the migration of the tribes of central Arunachal Stuart Blackburn writes;

From British colonial records and oral histories, we also know something of the movements of the central tribes within Arunachal during the past two hundred years. Dunbar, perhaps the most authoritative source until the 1960s, traces a mysterious migration route from "central Asia" across the mountains, and then provides some evidence for dispersal, mainly down rivers, into present-day settlement (Dunbar 1916: 12-15). He also describes several examples of internal migration southward in the form of establishing satellite villages; similar movements were noted for the Nyishis and Hill Miris by Furer-Haimendorf in the 1940s. The main reason for this internal migration has been the need for more forest area and the powerful magnetic pull of trade in the plains of Assam. There is also the "Push Factor" of Tibetan groups moving into areas occupied by Arunachal tribes in the eighteen century. For example the Tangams, the northernmost group of Adis, were reportedly forced south from Pemako, across the now-international border, into Arunachal; in the early twentieth century, floods in Yigrong Valley in eastern Tibet pushed Tibetan groups into Idu Mishmi country; again in the twentieth century Membas moved down the Siang and drove the Adis southward.⁸

Among the scholars a scholarly debate regarding the origin and migration of the tribes of central cultural zone of Arunachal Pradesh is going on. However, the present researcher would



like to discuss a very popular laymen understanding of the migration theory among the Galo people themselves. The very commonly accepted understanding regarding the migration among the Galo is north to south movement. The people believe that they migrated from north towards south. In fact, the present researcher personally had observed that whenever they talk about their origin and migration the narrator would instantly direct their finger towards north. The narrator would always utter the word "Tollo ke" not "Bollo ke". "Tollo ke" means when a person moves towards downward places from an upward place. "Bollo Ke" means when a person moves from downwards to upwards. It is interesting to observe that the word 'Galo' or 'Gelo' means to climb down and the word 'Gesal' means to climb up. So the term "Galo" could be seen as the people who move from upward place to the downward place. It has been observed that irrespective of slight dialectical variations among the Galos of different areas of the state the meaning of the word "Galo" is same everywhere.

Moreover, among the Galo people it is very clear from their hand gesture, body language and even from their dialect that they migrated from north not from south. But due to the lack of written records they are unable to trace the exact place from where they started their southward movement and also are unable to trace those places where they got settled for some time. Among the pre-literate societies like the Galo tribe beads play a very important role in tracing the migration route. Though based on oral literature it is observe that beads play the role of story teller for some extent.

Memories of the past, as we know, are transmitted not only by oral tradition but also by material culture, and so this essay also considers beads. As lightweight, high-value objects beads travel well and often over the same routes that people travel. With this in mind, I first wondered what memories these mobile beads might carry.⁹

It seems that the beads can be helpful in tracing the route the Galo people have taken during their migration process. Beads would reveal the stories related with the places they might have settled for sometime or may have exchange or sell their beads. During early days beads were use as currency. However, in the absence of written records, it is only their social memory in the form of folksongs, folklores, folk stories and other cultural stuffs provides us data in analysing their migration route. The southward migration theory is the traditionally accepted theory among the people. The scholars are contesting regarding exactly from which place the tribes of Arunachal Pradesh has migrated in general and Galo tribe in particular. As the present paper is based on Bead so the origin and migration of the tribe would not be discussed any further.



Economic Significance of Beads:

Not only among the Galo people but the beads have an economic importance in all the human society. Since from very early days bead trade was practice among the traders of all over the world. The network of bead trade was spread in every nook and corner of the world where human beings lived. Beads trade touch all the human inhabitants whether it may be a rich and developed civilisation or it may be a small tribe inhabiting seemingly unreachable places. Regarding the vast network of bead trade route Stuart Blackburn in his work mentions;

The geographical location of Arunachal Pradesh, between Tibet on the North, Burma on the East and the plains of Assam on the South, meant that these beads passed through the region as part of a vast network of trade routes linking South Asia with the rest of the world, not only its neighbours Tibet and China, but also Egypt, Mesopotamia, Europe, Africa, East Asia. When beads reached Northeast India, they entered the regional section of this international trade network, which was once based on fairs and pilgrimages and is now a part of global capitalism; this regional network moved goods back and forth across the Himalayas, largely through Bhutan but also through Arunachal, as well as along an east-west axis. Many of these glass beads, imported from Venice, Bohemia, Germany, China and the UK, and reworked by Indian craftsmen.¹⁰

In the early twentieth century it is mentioned that among the Adis and the Galos the blue and green porcelain beads from both Tibet and Assam were noticed. Regarding the economic importance of beads among the Galo L.R.N.Srivastava writes;

Trade in the early days was based on the principles of barter, and brass bowls, beads and cattle were used as money. But these items of money were interchangeable and one was never the exact multiple of the other, as the quality and the size if the brass bowls, size, colour, and lustre of the beads, and also the size of the cattle, always varied and hence standard exchange was obviously impossible. The resources of the tribe were supplemented by trade across the frontier. During the British days, say the Gallongs, they carried on trade with the Tibetans, as also with the Monpas and the Boris, whose area lay in between who often acted as intermediaries. Salt, beads, brass bowls and coats were the most prized articles which were brought from Tibet, bartered against cattle, spears and chillies. There were several trade routes lying between Tibetans and the Gallongs, which passed through the country of other people inhabiting the upper areas. These trading expeditions often led to inter-tribal feuds, as the people, who were living between the Gallongs and the Tibetans did not want the traders go via their country, as, in that case their trade would have sustain losses.¹¹

Traditionally it was assumed that the tribes of Arunachal Pradesh including the Galo tribe live in complete isolation. It was a commonly accepted notion that the tribes of the state do not have any contact with outside people. But the records on the beads trade network prove the notion wrong. The history of bead trade tells us about not only the inter-tribal trades but also about linkages with neighbouring states such as Assam. There are distinct trade routes for transaction of different items of day-to-day use as well as beads or ornaments. They also had linkages with



countries such as Tibet, China, Burma, and Bhutan. The inter-tribal trade of the past reveals the mutual dependence of tribes which otherwise have a subsistence economy with only negligible connection with markets or monetary economy. This was a reality in pre-colonial, colonial and even in the early phase of post-colonial history of this region.¹² However, since 1947, there has been considerable retardation in such barter trades with the Tibetans. All the needs of the people are now being fulfilled at the headquarters and the outposts.¹³

Among the tribes of Arunachal Pradesh who have a chieftainship political system beads and headdresses clearly define the social, political and economic status of a person. In the context of the Galo, as theirs is not a chieftainship based political life so beads visibly define their economic status. Beads are wealth that can be hidden as well as flaunted. It speaks about the economic life of the wearer. They are small, light and durable so beads as a representation of wealth are easier to keep in possession than cattle and other heavy metal cultural stuffs like brass-plate, brass bowls etc. Therefore, people opted for beads than their cattle and heavy stuffs whenever urgency comes up to leave the place. Still these days the owners of the rare and original beads are those who have an influential economic and social status. Among the Galo there is no restriction in wearing beads of one's likeness. However, as the beads are very costly stuffs so only the person of healthy economic life can afford to wear the expensive original beads. It is interesting to observe that how beads talk for its owner and how its owner enhances its price.

Findings:

Like all the other tribes of central cultural zone of Arunachal Pradesh the Galo people also consider the beads as their traditional possession which they inherited from their ancestors. However, it is observe that the tribe do not have the scientific and written documents regarding exactly from where their ancestors had procured the beads. They have many mythical stories regarding the origin of the beads in the form of folk tales, folk songs and folk stories. Because of the lack of written records the tribe in order to explain the traditional value of the beads rely on the oral literature based on folklores, folktales and folk stories. It is a human tendency that when we are unable to explain a phenomenon scientifically providing evidence then we take the folk tales, folk lore, folk stories etc as the base for our explanation. It has been observed that most of the people are not sure whether the beads are being brought while they were migrating to their present homestead or it was later on purchase from Tibet. But one very common notion among the people is that the beads they have are from Tibet. In the context of beads people virtually do not mention the name of Burma they confidently say that all their cultural stuffs including beads are from Tibet.

Among the scholars it is a proven fact that the Galo tribe procure their beads from Tibet and their neighbouring tribes. It is also clear among the people that earlier in the gone days they



use to procure beads from Tibet but after 1947 they began to purchase beads from Assam. After the Indo-China war of 1962 the bead trade towards north was totally prohibited so left with no option they began to go towards south i.e Assam to buy beads as till then beads became an inseparable part of their social and cultural life.

It may be the reason why the people gave much importance to the old beads which are believed to be procured from Tibet. They consider these beads to be very precious. The beads which they had procured from Tibet prior 1947 are considered to be an irreplaceable antiquity as they will never be able to procure beads from Tibet again. They consider the beads which they procure from Assam many years ago to be of good quality though not like that of Tibetan beads. The people categorise their beads to be the beads from Tibet and beads from Assam. It has been observed that most of the people know that earlier in the gone days they procure beads from Tibet but most of them do not know that Tibet was a trade centre or the traders in the international bead trade network in the Himalayas. Most of the people called their old precious bead as Tibetan beads and believe that it was made by them in Tibet. But they do not know that the 'Tibetans are traders and not makers of beads'.¹⁴

Still these days' people consider beads as one of the most important family property. And some believe that it is good to have genuine old beads as it would help the owner during financial urgency. Besides economic perspective the people consider beads to have power so they use it to ward off evil energy around them. As the present paper is based on economic importance hence the present researcher has not discussed beads from other perspective. The tribes of the Central cultural zone like the Apatani, the Galo, the Nyishi and the Tagin have the similar beads. However the importance given to the particular bead is different among the tribes. Besides, the patterns beads are arranged and put together in a string also differ among these tribes. Therefore, it gives an impression that these tribes from central cultural zone have different beads however when we observe closely we will find that these tribes use similar beads.

These days, people are purchasing beads at very high rate, above the market price. It may be the result of the awareness among the people regarding the antiquity of the beads especially the original one. Among the Galo people beads are indispensable in their cultural life especially in the traditional marriage system. There are certain beads that are only exchangeable during the marriage ceremony between two parties. The price of the beads that is used in marriage ceremony is rising very quickly because of its high demand among the people. Thus, beads are one of the most valued possession of a person in general but the beads used in social occasion is the most valuable among the valued possessions.



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REVOLUTIONS WITHIN: ECONOMIC EMPOWERMENT AND ITS RELATIONSHIP WITH SELF-ESTEEM OF RURAL WOMEN

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Abstract:

Women's Empowerment denotes empowerment in the social, educational, political, and economic fields, but economic independence is the most critical position. The present study has been conducted to assess the relationship between rural women's economic empowerment and their self-esteem in West Bengal. A sample of 100 married and unmarried economically empowered rural women living in two districts of West Bengal (Nadia and North 24 Parganas) have been selected for this study. The study has adopted a correlational research design and a simple random sampling strategy to collect the data. A set of questionnaires on the Women's Economic Empowerment and Rosenberg Self-Esteem Scale has been used to measure the relationship between the variables. Results of the coefficient of correlational analysis have indicated that the value of 'r', that is, 0.506, is significant, thereby showing that rural women's economic empowerment and self-esteem are significantly and positively correlated.

Keywords: Rural women; West Bengal; Economic empowerment; Self-esteem.

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1. Introduction:

The empowerment of women has been a topic of discussion for many years. Historically, we have seen that the role of women has been controversial. In India, they were once worshipped as Sita or Durga. As time went on, they were subjected to many social cases of abuse, such as child marriage, victims of the practice of Satipratha, that is, young married girls being brutally set on fire with their dead husbands, subject to physical and mental torture by the in-laws and so on. Moreover, they have been deprived of basic needs and rights like food, nutrition, fundamental freedom, freedom of education, etc. Therefore, it is well-acclaimed that empowering women is essential to combat the social evils and age-old conservative mindset of society.

Empowerment could be defined as the autonomy and self-determination exercised between people and the community. Once economically empowered, women could represent their interests in a self-determined way at home as well as in society. Women empowerment, therefore, is the tool by which women can practice the ownership of their survival based on their preferences. The United Nations (2001)¹ have discussed women's empowerment in terms of five components: "women's sense of self-worth; their right to have and determine choices; their rights to have access to opportunities and resources; their right to have the power to control their own lives both inside and outside the home; and their ability to influence the direction of social changes to create a more just and social and economic order,



nationally and internationally". Women's Empowerment denotes empowerment in the social, educational, political, and economic fields, but economic independence is the most critical position. In this context, women's economic empowerment is strengthening women's rights. It motivates women to participate, contribute and benefit in the growth process of a society that recognises the value of their contributions, respects their dignity, and helps them negotiate a fair distribution of growth benefits. In this respect, initiatives at the grassroots level undertaken by the Government of India to empower women are worth mentioning. The central and state Governments have introduced new plans, policies, and programs to empower women in urban and rural areas. Recently, the central government has launched major projects to promote gender equality, including Beti Bachao Beti Pado (Save the Daughter, Educate the Daughter), Pradhan Mantri Ujjwala Yojana (Cooking gas connection for women below the poverty line), and Mahila-e-Hat. On a similar line, the West Bengal state government has introduced various policies for the empowerment of women, including the Kanyashree Scheme (the State's flagship project for the girl child), Swabalamban Scheme (training provided to women on various livelihood activities, such as Zari and handloom weaving, beautician courses, community health training, stitching wood carving, etc.), but whether the said schemes have been able to uplift the sense of self-esteem in empowered rural women, is still behind a question mark.

Self-esteem, however, is a subjective assessment of a person's values. It is the sum of confidence and satisfaction in oneself. It has been defined by several factors, including confidence, feeling safe, identity, feelings of oneness, worthiness, and so on. Batool & Batool (2018) explained that income and self-esteem have completely conciliated the relationship between education and women's empowerment. Education was a prerequisite for increasing women's empowerment, but it seems to have encouraged women's empowerment by increasing their income and self-esteem. Generally, the status of women in rural society, especially their self-esteem, is not effectively recognised. We often see that the socio-economic and cultural taboos push them into the most strenuous path of life from which very few return with success. It is assumed that rural women, even if they are economically empowered, do not get the self-esteem they deserve.

2. Review of Literature:

Women's education is vital to the nation's socioeconomic development through increased productivity and female autonomy. Several studies have been reviewed on women's empowerment and its relationship with different variables. Moyle, Dollard & Biswas (2006) reported that working women had moderate to high levels of collective functioning, active attitude, self-esteem, social support, and self-efficacy. Sheetal (2006), in her research paper, presented the scenario of rural India. It has been found that, in rural areas, women are usually confined to household responsibilities and work for low wages, and mostly, they are not economically independent. Khan & Awan (2011) explored that a financially independent woman with personal savings saves her income and shares it with her family. Garai, Mazumder & Maiti (2012) showed that the perspectives and attitudes of self-help groups significantly impact women's empowerment. Another study by Kundu (2019) focussed on the socio-economic empowerment of rural women through different self-help groups initiated by the State government in West Bengal.

The following studies have been conducted to explore the relationship between women's empowerment and their self-esteem from different perspectives. Sarkar (2007) examined the context of West Bengal and found that employment positively impacts



women's empowerment in this state. In another study by Eyo (2006), it has been explored that women having high self-esteem could influence the prevention of violence against women, and their self-esteem enhances confidence about their ability, values, approval or disapproval, and effectiveness in their work periphery. In their research, Al-Amin & Chowdhury (2008) showed that income diversification is vital in accelerating women's confidence and self-esteem. Haltberg (2008) found that if women are given financial freedom, that may lead to greater self-esteem and dignity in their families and extended environment. Aishamanju & Nirmala (2018) analysed the socio-economic profile of working women and their level of self-esteem, with results showing that most (62.5%) of working women having high self-esteem significantly related to social support. Therefore, an apparent absence of research studies on economic empowerment and its relationship with the self-esteem of rural women, especially in West Bengal, has been noted. Therefore, the present study focuses on the relationship between women empowerment and the self-esteem of rural women in the two districts of Nadia and 24 Parganas in West Bengal.

3. Research Questions:

The research questions framed for the study are as follows:

- Is there any correlation between the economic empowerment and self-esteem of rural women in West Bengal?
- Is there any significant difference between economically empowered women based in different rural areas? Has it affected the self-esteem of women in West Bengal?
- What is the level of self-esteem among economically empowered rural women?

4. Objectives of the Study:

The study has been dedicated to determining the relationship between women's economic empowerment and self-esteem in the North 24 Parganas and Nadia districts of West Bengal. The objectives of the study are:

- To find the correlation between economic empowerment and self-esteem of rural women in West Bengal.
- To determine the significant difference between economically empowered rural women and their self-esteem in different rural areas of West Bengal.
- To study the level of self-esteem in economically empowered rural women.

5. Hypotheses of the Study:

The following are the hypotheses constructed for the study:

H₀₁- There is no significant difference between rural women's economic empowerment and self-esteem in West Bengal.

H₀₂- There is no significant difference between economically empowered women and self-esteem based on different rural areas in West Bengal.

6. Methodology:

A quantitative approach with a correlation research design has been employed to examine the hypothesis and objectives of the present study. Economic empowerment has been considered the independent variable, and the self-esteem of rural women has been considered the dependent variable in this study.



6.1 Sampling and Data Collection:

The Simple Random Sampling procedure has been adapted to select representative samples for the study. The researcher randomly chose four blocks, two each from the North 24 Parganas and Nadia districts of West Bengal. Initially, 120 economically empowered rural women (60 women from the two blocks of North 24 Parganas and 60 women from the two blocks of Nadia) filled out the questionnaire. Still, the final selection of samples came down to 50 women from North 24 Parganas and 50 from Nadia. Twenty samples have been rejected due to incomplete submission.

6.2 Tools:

- A ten-question questionnaire was used to collect data about the economic empowerment of rural women. The questionnaire was developed based on a pilot study and expert validation in the field.
- Rosenberg's self-esteem scale has been used to collect data from rural women in West Bengal districts. Rosenberg Self-Esteem (RSE) Scale, developed by Rosenberg (1965), has been employed to measure the self-esteem of empowered women from a rural background, which will positively assess one's attributes and feelings of self-worth. It consists of 10 items related to the overall feeling of self-worth. Items have been responded to along a four-point Likert scale, ranging from "strongly agree" to "strongly disagree". High scores on the scale indicate high self-esteem. The highest possible score on the scale is four, and the lowest is 1.

7. DATA ANALYSIS AND INTERPRETATION

The data corresponding to the research objectives and hypotheses set out by the study has been analysed using a quantitative approach. Various statistical tools have been used in analysing the collected data, such as the Coefficient of correlation, z-, test, and percentage. After collecting the data, the respondents were rated, keeping in mind the negative and positive statements of the questionnaire; reverse scoring was done for the negative remarks. The results of the study are summarised in Figures and Tables.

H₀₁: There is no significant difference between rural women's economic empowerment and self-esteem in West Bengal.

Data scores obtained on their self-esteem from empowered rural women of the two districts of West Bengal have been computed using the Pearson Coefficient of Correlation. The results are presented in Table 1 below.

Table-1

The value of R	The value of R ² (coefficient of determination)	Correlation	P-Value
0.5064	0.2564	Positive	Significant

Interpretation:

Table- 1 indicates that the value of 'r', that is, 0.506, is significant, thereby showing that rural women's economic empowerment and self-esteem are significantly and positively correlated. Therefore, the null hypothesis is rejected, and the result concludes that the relationship between economic empowerment and self-esteem is significant.

H₀₂ - There is no significant difference between economically empowered women and self-esteem based on different rural areas in West Bengal (24 Parganas and Nadia).

Table-2

N	Mean	SD	Mean	SD	SED	z	Sig. level
100	Economic Empowerment of Women		Self-esteem				
	34	2	30	3	0.36	11.11	Significant

Interpretation:

Table- 2 depicts the 'z' value (11.11) computed for differences between the mean scores of economic women empowerment and self-esteem. The computed 'z' value exceeds the critical value of other tails by 1.96 and 2.58. Therefore, it may be considered significant at 5% and 1%. Hence, the null hypothesis is rejected at the 0.01 level, and the result leads to the conclusion that the economic empowerment of rural women differs significantly in self-esteem based on different rural areas of West Bengal (24 Parganas and Nadia).

Objective: 3

To study the level of self-esteem among economically empowered rural women of West Bengal.

Figure-2

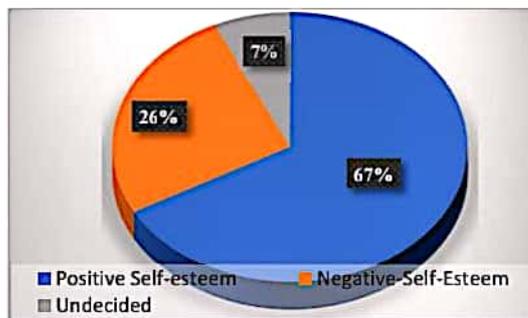


Figure-1

Participant	N	%
<i>Positive Self-esteem</i>	67	67
<i>Negative-Self-Esteem</i>	26	26
<i>Undecided</i>	7	7
<i>Total</i>	100	100

Figures 1 and 2 indicate that 67% (N=100) of the economically empowered rural women have positive self-esteem, 26% are not so positive, and 7% do not have a sense of self-esteem, thereby remaining undecided.

8. Major Findings:

The significant findings of the study may be charted as follows:

- Economic empowerment of rural women and their self-esteem is significantly and positively correlated.
- Economically empowered women and their sense of self-esteem differ significantly concerning different rural areas of West Bengal (24 Parganas and Nadia district).



- 67% of participants expressed that their understanding and exercise of self-esteem are positive. On the other hand, despite being economically empowered, 26% of the participants are unaware of having a proper sense of self-esteem. Surprisingly, 7% of rural women remained silent with no self-esteem.
- The study revealed that economic empowerment and self-esteem of rural women in West Bengal are positively related; thereby, empowering rural women economically could help them achieve high self-esteem.
- The study's findings could evoke public awareness and positive interest feedback towards the economic empowerment of rural women, using different policies and schemes set forth by Central and State governments.

9. Future Implications:

The future implications of the study are many, which are as follows:

- As society moves towards an inclusive economic structure, women's empowerment can go a long way by providing women with leadership opportunities and the proper platform to participate in decision-making.
- Various programs on equal rights can significantly help women get access to equal work opportunities, considerably impacting their empowerment and developing a sense of self-esteem.
- One of the most effective ways to empower women is to invest in women's entrepreneurial ideas, emotionally and financially.
- Educated women are able enough to take care of themselves, their families, and their communities. The government should, therefore, focus more on enrolling and retaining girls in schools and providing them with high-quality education, which gives them the potential to earn better wages, grow healthier and create a voice in the community.
- Skill development is the key to improving women's autonomy and providing employment, directly and indirectly linked to empowerment, so the government should develop various skills development programs for women.
- In rural areas of West Bengal, superstitions, traditional beliefs, negative attitudes, and bad habits prevailing in the society are significant barriers to women's economic empowerment, which need to be eradicated. Government and non-government organisations, members of civil society, and other stakeholders must come forward with particular work-specific interventions to accelerate the process of economic empowerment of women.
- Awareness-raising initiatives should be taken not only among women but also among their male partners to stimulate the economic empowerment of women. It will not deprive them (men) of their rights. Instead, it will improve their family life.
- The study facilitates the family's understanding of the need for mutual emotional support for women arising from forced economic dependency on the family members and inappropriate emotional reactions.

10. Limitations of the Study:

The present study has been conducted in consideration of the following limitations:

- The study area is limited to the Nadia and North 24 Parganas districts in West Bengal only.



- The study is limited to rural women of these districts.

11. Conclusion:

The socioeconomic development of society and women's education are closely related. Education invokes awareness in women and consequently contributes to the family as well as the economy of the country. Studies show girls can do better if they get proper education and social support. Economic empowerment is one of the ways that can encourage them to move forward and build confidence. Eliminating structural gender inequalities in the labour market can empower women economically and, at the same time, increase their self-esteem and self-reliance. Social workers could plan for community-based interventions and conduct awareness programs to identify psychosocial problems of women as reasons behind their dependency on male counterparts in the family. A deep sense of self-esteem, once developed in women, could spread consciousness and positive behaviour in the growing generations.

Economic empowerment provides women with the resources and tools they need to achieve financial independence and self-sufficiency. It is a critical factor in promoting gender equality and reducing poverty in rural areas. In conclusion, economic empowerment is essential for promoting gender equality and reducing poverty in rural areas. It also positively impacts the self-esteem and confidence of rural women, which can lead to more significant social and economic opportunities for them and their families.

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সমাজচিত্তায় পল্লি-উন্নয়নে ও অর্থনীতিতে রবীন্দ্রনাথ ঠাকুরের অবদান

ড. তুলিকা কর

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Abstract

আমাদের কাছে রবীন্দ্রনাথ মানেই কবিতা, গান, নাটক, ছোটগল্প। রবীন্দ্রনাথ মানেই বিশ্বকবি। কিন্তু এর পাশাপাশি গ্রাম উন্নয়নের পথিক। একটু গভীর ভাবে পর্যবেক্ষণ করলে দেখা যায় রবীন্দ্রচিত্তার দুটি ধারা সমান্তরাল ভাবে তার জীবনে বয়ে গিয়েছে একটি সাহিত্য সৃষ্টির ধারা এবং অন্যটি গ্রাম সঞ্জীবন তথা গ্রাম উন্নয়নের ধারা। কবি রবীন্দ্রনাথ সম্পর্কে সম্যক ধারণা প্রায় সবারই আছে। এই চর্চার বিষয়বস্তু হলো সমাজ ভাবনায়, গ্রাম উন্নয়নে ও অর্থনীতিতে রবীন্দ্রনাথের ভূমিকা ও অবদান। বিশেষত: পল্লি-উন্নয়ন, ভূমি সংস্কার ও সমবায় ভাবনায় রবীন্দ্রনাথের অবদান আজ ও অনস্বীকার্য। এই চর্চার বিষয় বস্তু মূলত সেটাই।

Keywords: কবিতা, উন্নয়ন, সংস্কার, সমাজ ভাবনা, অর্থনীতি

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সূচনা

রবীন্দ্রনাথ নামটি শুনেই আমাদের চোখের সামনে ভেসে ওঠে দীর্ঘদেহী লম্বাচুল দাড়িওয়ালা একজন নিরেট ভদ্র মানুষ যার সাহিত্য আমাদের মনের গহীনে এক নির্মল স্রোতধারা বইয়ে দেয় যেন নিপবন হাতছানি দিয়ে ডাকে নব ধারা জলে স্নান করার জন্য। সাহিত্য সম্রাট বঙ্কিমচন্দ্র চট্টোপাধ্যায় বলেছিলেন—“কবির কবিত্বকে জানিয়া লাভ আছে সন্দেহ নাই, কিন্তু কবির জীবনকে জানা আরও অধিক লাভ”, কথাটি বিশ্বকবি রবীন্দ্রনাথ সম্বন্ধে বিশেষভাবে প্রযোজ্য। কবিগুরুর জীবনী (১৮৬১-১৯৪১) যদি গভীর নিষ্ঠার সঙ্গে পাঠ করা যায়, তাহলে তার বিপুল রচনার বৈভব ও বৈচিত্র্যের মাঝে তার সৃষ্টির প্রতিভাকে নবনব রূপে আবিষ্কার করা সম্ভব হবে। পাশাপাশি তার কর্মসাধনার স্বরূপটিকে যথার্থভাবে চিহ্নিত করা যাবে। একটু গভীরভাবে পর্যবেক্ষণ করলে দেখা যায় রবীন্দ্রচিত্তার দুটি ধারা সমান্তরাল ভাবে তার জীবনে বয়ে গিয়েছে একটি সাহিত্য সৃষ্টির ধারা এবং অন্যটি গ্রাম সঞ্জীবন তথা গ্রাম উন্নয়নের ধারা।

আমাদের কাছে তেঁা রবীন্দ্রনাথ মানেই কবিতা, ছবি, নাটক, ছোটগল্প, গান। রবীন্দ্রনাথ মানেই বাঙালী। কিন্তু এই মানুষটি কেঁথায় পয়েছেলিনে এতসব শিল্পকর্মের উপকরণ কভাবে



জীবনরে গভীর জায়গাতেই ছুঁতে পরেছিলেন ঠাকুর পরিবারের একজন উত্তরসূরী হয়েও? এই প্রশ্নগুলোর উত্তর একটাই তা হলো তিনি ছিলেন মাটি ও প্রকৃতির নবিড় বন্ধনে আবদ্ধ একজন মানুষ। এই বন্ধন তাঁকে কখনো নষি়ে গছে দরদির প্রজাকুলরে জীবন সংগ্রামরে ভেতর, কখনো বা এই বাংলার কৃষকদরে ভাবনায় কখনো গ্রামীন অর্থনীতি উন্নয়নরে ভাবনায়, কখনো প্রস্তুতিকি মানুষদরে সংগঠতি করে পথচলার ভাবনায়।

কলকাতা জোড়াসাঁকো ঠাকুর পরিবারের সন্তান রবীন্দ্রনাথ কল্লনার জগতে গ্রাম বাংলার পরিচয় পান শিশু বয়সে পরিচায়ক ভূতের গল্পগাছায়। তারপর পানিহাটির গঙ্গাতীর এবং বোলপুরের কাঁকরময় ভূ-প্রকৃতি তার মনোজগতকে প্রসারিত করে। বলাই বাহুল্য শিলাইদহ, শাহজাদপুর-পতিসরে তার গ্রাম অন্বেষণ সার্থক রূপ লাভ করে। প্রথাগত শিক্ষা রবীন্দ্রনাথকে খুব একটা আকৃষ্ট করতে পারেনি। ফলস্বরূপ তার পড়াশোনা বেশিদূর অগ্রসর হয়নি। কিন্তু পারস্পরিক আবহাওয়ায় শিক্ষা এবং বিভিন্ন বিষয়কে জানার আগ্রহে তার স্ব-শিক্ষা প্রথাগত শিক্ষাকে অতিক্রম করেছিল। কেন না আমরা জানি—“স্বশিক্ষিত লোক মাত্রই সুশিক্ষিত।” তেইশ বছর বয়সের সময় পিতা মহর্ষি দেবন্দ্রনাথ ঠাকুর রবীন্দ্রনাথকে জমিদারির কাজ দেখাশোনার নির্দেশ দিয়েছিলেন। কামল হৃদয়রে রবীন্দ্রনাথকে পারিবারিক প্রয়োজনেই জমিদারির দায়িত্ব নিতে হয়েছিল। বিয়ের পর তিনি সাহিত্যচর্চার পাশাপাশি ঠাকুরবাড়ির কাছারীতে বসে জমিদারির কাজ কিছু কিছু শিখেছিলেন। কলকাতা শহরে লালিত পালিত যুবক রবীন্দ্রনাথের গ্রামে থাকাটা প্রথমদিকে সংগত কারণেই ভালো লাগেনি। তবে ধীরে ধীরে গ্রাম, গ্রামের মানুষ-প্রকৃতি-নদী জল গাছপালা পশুপাখি ইত্যাদির প্রতি তিনি আকৃষ্ট হয়ে থাকেন। তিনি তাদেরকে ভালোবেসে ফেলেন। এই পরিচয় লিপিবদ্ধ আছে ঐ সময়ে ভাইবি ইন্দিরাকে লেখা ছিন্ন পত্রাবলীর নানা পত্রে। ঐ সমস্ত পত্রে রবীন্দ্রনাথ জানিয়েছিলেন, গ্রামের মানুষের দুঃখ কষ্ট অভাব দারিদ্র্য এবং নানাবিধ সমস্যার কথা। গ্রাম থেকে গ্রামের মানুষের জীবন যাপনের প্রত্যক্ষ ছবি তাকে ব্যথিত করে তোলে। তার অন্তর দয়াপরবশ হয়ে ওঠে। জমিদারির কাজ করতে গিয়ে বুদ্ধিমান ও দরদী রবীন্দ্রনাথ অল্পদিনের মধ্যেই বুঝতে সক্ষম হন—যাদের আয়ের উপর, পরিশ্রমের উপর নির্ভর করে কলকাতা শহরে তাদের বাবুয়ানি চলে তাদের কথা ভাবতে হবে। তাদের জীবনের মান উন্নয়নের দিকে নজর দিতে হবে। তাই জমিদারির দায়িত্ব নষি়েই তিনি চরিত্রীয়ত প্রথার বৃত্ত ভঙে মানবিক জমিদার হিসাবে আত্মপ্রকাশ করছিলেন।

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রবীন্দ্রনাথের সমাজচিন্তা কয়েকটি পর্যায়ে বিভক্ত করা চলে—

ক. শান্তিনিকেতন পূর্ব জীবন (১৮৭৯-১৮৯১) : এই পর্বে তিনি আলোচনা করেছেন ভারতীয় হিন্দু পরিবারের ভিতরকার কাঠামো। পুরানো পিতৃতান্ত্রিক ব্যবস্থায় গুরুজন লঘুজন ভেদ, অধিকার ভেদ, পরিবারের মধ্যে কঠিন



বিন্যাস নিয়ে। তিনি ব্যক্তিস্বাধীনতা, স্ত্রী-স্বাধীনতার দাবির কথা বলেছেন। ঐতিহ্যশক্তি ও আধুনিকতার শক্তি, স্বদেশ শক্তি ও স্বকালের শক্তির সমন্বয় চেয়েছেন তিনি। এ সময়ে গুরুত্ব পেয়েছে সমাজে ব্যক্তির অধিকার, সাম্য, ব্যক্তি স্বাধীনতা, সমাজে বা পরিবারে নারীদের বন্দিদশা। নারীদের দুর্দশা সবসময়ই রবীন্দ্রনাথকে ব্যথিত করেছিল। বাল্যকালীন সর্বাঙ্গিক বশ্যতা, কঠিন পারিবারিক প্রভুত্ব-দাসত্ব, কর্তৃত্বপরায়ণ নিয়মতন্ত্রের বিরুদ্ধে, অযৌক্তিক ভক্তির দাবির বিরুদ্ধে তর্ক তুলেছেন। ব্যক্তির স্বাধীনতা তাঁর প্রার্থিত ছিল। তিনি স্পষ্টবাক ছিলেন বাল্যবিবাহের অযৌক্তিকতাতে।

খ. শান্তিনিকেতন-বঙ্গদর্শন পর্ব (১৯০১-১৯০০) : রবীন্দ্রনাথ এই পর্বে ব্রহ্মার্শে বিদ্যালয় স্থাপন, নৈবেদ্য রচনা প্রভৃতিতে ছিল হিন্দুত্বের ঘোর, বাল্যবিবাহ ও পণপ্রথার বিরুদ্ধে থাকলেও মেয়েদের বিয়েতে তাঁকে নিজ মতের বিরুদ্ধে যেতে হয়েছিল। নিজের ছেলে রথীন্দ্রনাথ ঠাকুরের সঙ্গে তিনি বিধবা বিবাহ দিয়েছিলেন। তাঁর বিশ্বাস ছিল শাস্ত ভারত, মূর্খ ভারতের উজ্জীবন সম্ভব ব্রাহ্মণের দ্বারা। ১৯০৪ সালে “স্বদেশী সমাজ” প্রবন্ধে পল্লিজীবনের অভিজ্ঞতার ভিত্তিতে সমাজ ও স্বদেশচিন্তা বিষয়ে সুস্পষ্ট মতামতের দ্বারা তিনি চাইলেন হিন্দু বৌদ্ধ খ্রিস্টানের মৈত্রী। এ প্রসঙ্গে একমাত্র তিনিই বলতে পারেন—

“হিন্দু বৌদ্ধ শিখ জৈন পারসিক মুসলমান খ্রিস্টানী

পূর্ব পশ্চিম আসে তব সিংহাসন পাশে

প্রেমহার হয় গাঁথা। ”

তবে দেশচেতনার সঙ্গে ধর্মচেতনা, ভারতচেতনার সঙ্গে তাঁর হিন্দুত্বচেতনা মিশে ছিল। সত্যেন্দ্রনাথ রায়ের ভাষায়—স্বদেশী আন্দোলন রবীন্দ্রনাথের কাছে স্বদেশীতে দীক্ষাগ্রহণের জাতির আত্ম আবিষ্কারের জাতীয় ঐক্যের আন্দোলন। অন্যান্য নেতারা যখন মধ্যবিত্তের স্বার্থরক্ষাকেই প্রধান মনে করতেন, রবীন্দ্রনাথ সেকালে বোঝেন পল্লি-উন্নয়ন, পল্লিবাসীর আত্মপ্রত্যয় ফিরিয়ে আনা, পল্লিবাসীকে সংগঠিত করা।

চূড়ান্ত পর্ব : ইংরেজ যে এদেশের অধিবাসী হতে আসেনি এসেছে শোষণ করতে, এটা তাদের উপনিবেশ মাত্র-এ অপ্রিয় সত্য, বহুকাল তাঁর নজরে আসেনি। তিনি ‘শিক্ষার মিলন’ প্রবন্ধে বলেছিলেন—“যে ভারতবর্ষ অতীতে অঙ্কুরিত হইয়া ভবিষ্যতের অভিমুখে উদ্ভিন্ন হইয়া চলিয়াছে, ইংরেজ সেই ভারতবর্ষের জন্য প্রেরিত হইয়া আসিয়াছে। সেই ভারতবর্ষ সমস্ত মানুষের ভারতবর্ষ—আমরা সেই ভারতবর্ষ হইতে অসময়ে ইংরেজকে দূর করিব, আমাদের এমন কি অধিকার আছে।” আবার ‘নারীর মনুষ্যত্ব’ পত্র প্রবন্ধে (১৯২৮) তিনি নারীর আত্মমর্যাদা, নারীর আত্মতা, নারীর মনুষ্যত্বের কথা বলেছেন। এ চিন্তার সামাজিক ও শিল্পিত অভিব্যক্তি দিতে তিনি সমর্থ হয়েছিলেন। নারীদের বঞ্চনায় তাঁর প্রাণ কাঁদত। এ প্রসঙ্গে বিধাতার কাছে তাঁর প্রশ্ন ছিল—



“নারীকে আপন ভাগ্য জয় করিবার

কেন নাহি দিবে অধিকার

হে বিধাতা”

যদিও আমার মতে নারীর ভাগ্য নারী নিজেই জয় করবে, বিধাতার ওপর তাকে নির্ভরশীল হতে হবে না। যাই হোক, এরপর ১৯৩৪ সালের একটি চিঠিতে ইংরেজ শাসন সম্পর্কে রবীন্দ্রনাথে মোহমুক্ত জনের পরিচয় আমরা পাই। অমিয় চক্রবর্তীকে তিনি বলেছেন ইংরেজ এ দেশে যা যা করেছে তা ধনতান্ত্রিক সাম্রাজ্যবাদী আগ্রাসী শক্তি হিসাবেই করেছেন। সাম্রাজ্য অটুট থাকবে, ধনতন্ত্র অটুট থাকবে, অথচ ভারতবর্ষে ইংরেজ অন্যরকম আচরণ করবে এটা কখনই সম্ভব নয়। রবীন্দ্র উপলব্ধি হল—মানবসভ্যতার ভিত্তিবদল না হলে আমরা বাঁচব না। ‘কালান্তর’ গ্রন্থের ‘নবযুগ’ প্রবন্ধে তিনি আশা প্রকাশ করেছিলেন—সম্ভবত আমাদের দুর্গতির রাত্রি অবসান খুব দূরে নয়। ১৯৩৩ এর এই প্রবন্ধের পরে ১৯৪১ এ রবীন্দ্রনাথের মহাপ্রয়াণ। তাঁর এ বাণী যদি সত্য হত তাহলে বহু নিগ্রহের স্বস্তি নামত। কিন্তু আজও আমরা দুর্গতির রাত্রি অবসানকে প্রত্যক্ষ করতে পারি না। একে দুর্ভাগ্যই বলা যেতে পারে।

রবীন্দ্রনাথ, পল্লী-উন্নয়ন ও পল্লীগংগঠন:

এবার রবীন্দ্রনাথের পল্লিসংগঠনের কিছুটা পরিচয় দেওয়া যাক। এর দুটি পর্যায়—শিলাইদহ পর্ব এবং শ্রীনিকেতন পর্ব। ঠাকুর এস্টেটের পার্টিশনের পর থেকে (১৮৯৫) অন্তত কুড়ি বছর রবীন্দ্রনাথ তাঁদের জমিদারির অন্তর্গত বিভিন্ন গ্রামে চাষির অবস্থা উন্নয়নের চেষ্টায় আত্মনিয়োগ করেন। রবীন্দ্রনাথ জমিদারীর দায়িত্ব পেলেন, তাঁকে শিলাইদহ, বিরাহিমপুর, সাজাদপুর তদারক করতে হত (১৮৯৪)।

১৯০৭ সালে পাবনায় প্রাদেশিক সভাপতির ভাষণে রবীন্দ্রনাথ বলেন গ্রামে উন্নাদের মত মোকদ্দমা চলছে। ম্যালেরিয়া দুর্ভিক্ষ ফিরে ফিরে আসছে কিন্তু অকালে খিদে মেটানোর সঞ্চয় নেই। রবীন্দ্র পরামর্শ ছিল—“শিক্ষা দাও; কৃষিশিল্প ও গ্রামের ব্যবহারের সামগ্রী সম্বন্ধে নতুন চেষ্টা প্রবর্তিত করো। গ্রামবাসীদের অবস্থান যাতে পরিচ্ছন্ন স্বাস্থ্যকর ও সুন্দর হয় তাহাদের মধ্যে সেই উৎসাহ সঞ্চারণ করো এবং যাহাতে তাহারা নিজেরা সমবেত হইয়া গ্রামের সমস্ত কর্তব্য সম্পন্ন করে সেইরূপ বিধি উদভাবিত করো।” এই উদ্দেশ্যে তাঁর জমিদারিতে কয়েকটি পল্লি একত্রিত করে মন্ডল, মন্ডলীতে এক একজন প্রধান নিযুক্ত করা হল। ইনি নির্বাচিত প্রধান। বিচারের জন্য সালিশী সভা।

পদ্মা বিধৌত শিলাইদহেই রবীন্দ্রনাথের গ্রামোন্নয়ন উদ্যোগের সূচনা হয়। রবীন্দ্রনাথ প্রজাদের দুর্ভাবস্থার উন্নতি সাধনে ব্রতী হলেন। আমরা সবাই জানি তাঁর বিখ্যাত কবিতা দুই বিঘা জমিতে তিনি লিখেছিলেন —



“শুধু বিষে দুই, ছিল মোর ভুই

আর সবই গেছে ঝণে

বাবু বলিলেন বুঝেছ উপেন

এ জমি লইব কিনে”

দরিদ্র প্রজার দুই বিঘা জমি কজা করার জমিদারী অত্যাচারের বিরুদ্ধে শুধু তিনি কলমই ধরেননি, যথাসম্ভব আইনি পথেও ঠেকানো শুরু করেছিলেন। প্রথমে তিনি তাঁর ‘স্বদেশী সমাজ’ প্রবন্ধে সমস্যাগুলিকে স্পষ্ট করে তুলে ধরেন উক্ত প্রবন্ধে তিনি দেশের শিক্ষিত সমাজকে গ্রামোন্নয়নে এগিয়ে আসার আহ্বান জানান।

যখন এদেশে কোন সরকারি কৃষিনীতি নেই, কোন কৃষি বিশ্ববিদ্যালয় নেই, তখন তিনি লিখেছিলেন— “কৃতিত্বের পারদর্শীদের লইয়া আমরা কি আমাদের দেশের কৃষির উন্নতিতে প্রবৃত্ত হইতে পারিতাম না।” বলা বাহুল্য কাজে নেমে রবীন্দ্রনাথ বিলেতফেরত কৃষিবিদ দ্বিজেন্দ্রলাল রায়ের সহায়তায় শিলাইদহে আলুচাষ শুরু করেন। এর আগে আমাদের দেশে আলুচাষ হত না। আজ বাংলায় কৃষি-অর্থনীতি যে ফসলটির ওপর বহুলাংশে নির্ভরশীল। সেই আলুচাষের পথিকৃৎ হলেন রবীন্দ্রনাথ। শুধু আলু নয়, ১৮৯৯ সালের ২৪জুন একটি চিঠিতে তিনি লিখেছেন—“আমার চাষবাসের কাজ মন্দ চলিতেছে না, আমেরিকান ভুটার বীজ আনাইছিলাম, তাহার গাছগুলি দ্রুতবেগে বাড়িয়া উঠিতেছে। মাঝারি সরুধান রোপন করাইয়াছি, তাহাতে কোনও অংশে নিরাশ হইবার কারণ দেখিতেছি না।” তাঁর আর একটা জমিদারি ছিল পতিসরে। তিনি অক্ষয়কুমার মৈত্রেয় রেশম চাষের সহচর হয়ে পতিসরে কালীগ্রাম পরগনায় রেশমচাষ শুরু করেন।

মহর্ষি দেবেন্দ্রনাথ ঠাকুরের জীবদ্দশায় (মৃত্যু ১৯০৫ সালে) ঠাকুরবাড়ির জমিদারি ভাগ হয়। তখন রবীন্দ্রনাথের ভাগে পরে কালীগ্রাম পরগনা, যার সদর হল পতিসর। রবীন্দ্রনাথের আধুনিক কৃষি ভাবনা তথা গ্রামোন্নয়ন ভাবনার প্রাণকেন্দ্র ছিল পতিসর। ১৮৯১ সালে নাগর নদী পেরিয়ে পতিসরে প্রথম পা রাখেন রবীন্দ্রনাথ। প্রিয় পতিসর তিনি শেষবারের মত ছেড়ে যান ১৯৩৭ সালে ২৬ জুলাই (১০ শ্রাবণ, ১৩৪৪ বঙ্গাব্দ)। প্রিয় পতিসর ছেড়ে শেষবারের মত বিদায়বেলায় কবিগুরু নিজেও কেঁদেছেন এবং গ্রামবাসীকেও কাঁদিয়েছেন।

শিলাইদহ যদিও রবীন্দ্রনাথের গ্রামোন্নয়ন ভাবনার আঁতুড়ঘর। কিন্তু সেখানে হিন্দু মুসলমানের মধ্যে সদ্ভাবের অভাবে গ্রামোন্নয়নের কাজ বাধাপ্রাপ্ত হয়েছে। কিন্তু পতিসরে প্রজাদের মধ্যে মোটামুটি ঐক্য ছিল এবং তাদের একনিষ্ঠতাও ছিল। সেজন্য সেখানে গ্রামোন্নয়নের কাজ করতে রবীন্দ্রনাথকে তেমনভাবে অসুবিধার সম্মুখীন হতে হয়নি। তিনি কাজের সুবিধার্থে কালীগ্রাম পরগণাকে তিনভাগে ভাগ করেন এবং পরগণার প্রজাদের দিয়ে কালীগ্রামে তিতৈষী সভা নামে একটি সমিতি নির্বাচন করান। এই সভা ছিল গ্রামভিত্তিক। প্রত্যেক বিভাগের প্রজারা



একটি করে বিভাগীয় হিতৈষী সভাও নির্বাচন করে। গ্রামের অভাব দূর করার জন্য হিতৈষী সভা নানান দিকে চেষ্টা করেছে—শিক্ষা বিস্তার, তাঁতের কাপড় প্রভৃতি গ্রাম্য শিল্প প্রচলন। চাষের উন্নতি, মাছের ব্যবসা, রাস্তাঘাট প্রস্তুত, সালিশের বিচার, জলকষ্ট নিবারণ, দুর্ভিক্ষের জন্য ধর্মগোলা স্থাপন ইত্যাদি। কিন্তু একটি অভাব দূর করার ক্ষমতা ছিল না বলে দূর করতে পারেননি। সেই হল ঋণের সমস্যা। জমিদারির সঙ্গে পরিচয় পর্বেই তিনি লক্ষ্য করেছিলেন প্রজাদের মধ্যে সকলের ঋণ আছে। এটাই ছিল তখনকার দিনে পল্লিসমাজের সমস্যা। এই সমস্যা সর্বদাই তাঁকে পীড়া দিত। কিন্তু এর প্রতিবিধানের কোনও উপায় অনেকদিন পর্যন্ত খুঁজে পাননি।

এই সমস্যা দূর করার একমাত্র উপায় ছিল কম সুদে প্রয়োজন মত ধার দেওয়ার ব্যবস্থা। এই সময়ে শান্তিনিকেতন থেকে তাকে যথেষ্ট দেনা করা স্বত্ত্বেও প্রজাদের দুঃখ নিবারণের জন্য কিছু চেষ্টা না করেও তিনি থাকতে পারলেন না। বন্ধু-বান্ধব ও দু-একজন ধনী মহাজনের কাছ থেকে টাকা ধার করে তিনি পতিসরে একটা ১৯০৫ সালে পতিসরে একটা কৃষিব্যাংক স্থাপিত করেন। এখানে উল্লেখযোগ্য বিষয় হল—‘পতিসর কৃষি ব্যাংক’। ভারতবর্ষের প্রথম কৃষিব্যাংক। রবীন্দ্রনাথের পল্লি উন্নয়ন ও পল্লিসমাজ গঠনের চেষ্টায় কৃষিব্যাংক প্রতিষ্ঠা ছিল অসাধারণ মাইলফলক। ১৯০৫ সালে পতিসরে কৃষিব্যাংক প্রতিষ্ঠিত হবার পর তা ১৯২৫ সাল পর্যন্ত চলেছে।

কৃষিব্যাংক ভালোই চলছিল। নোবেল প্রাইজের আসল টাকা ব্যাংক বিশ্বভারতীকে ফেরত দিতে পারেনি। রবীন্দ্রনাথ জাহাজের খোল কিনে ইঞ্জিন বসিয়ে দেশী বাষ্পীয় পোত, দেশলাই তৈরি, কাপড়ের ও পাটের কল চালানো, আখমাড়াইয়ের কল কেনাবেচা প্রভৃতি ব্যবসা বাণিজ্যের চেষ্টা করেন কিন্তু সফল হননি। দেওঘরের কাছাকাছি নয়টি মৌজা পত্তা নিয়ে কয়েকজন দেশানুরাগী এবং ধনাঢ্য ব্যক্তির সঙ্গে মিলে ‘The Deoghar Agricultural settlement Company’ নামে একটা প্রকল্প স্থাপন করেন, ... এবং অনুরূপ কয়টি স্বাস্থ্যকর জায়গায় স্বাস্থ্যনিবাস স্থাপনের সংকল্প ছিল। কিন্তু এ প্রকল্পও স্থায়ী হয়নি। রবীন্দ্রনাথ লিখেছেন যতদিন কৃষিব্যাংক ছিল বিদ্যালয়ের ওপরে বিশ্বভারতীর বছরে আট হাজার টাকা করে একটা স্থায়ী আয় ছিল। কারো কারো মতে মহম্মদ ইউনুস যে গ্রামীণ ব্যাংক বিস্তার করেছেন রবীন্দ্র প্রয়াস তার পূর্বসূরী। রবীন্দ্রনাথের এইসব প্রয়াসের পেছনে কাজ করেছে দেশপ্রেম, আত্মনির্ভরতা, রাষ্ট্রনির্ভরতার ঔদাসীন্য।

রবীন্দ্রনাথের সমবায় ভাবনা:

রবীন্দ্রনাথ ভারতবর্ষের আর্থ-সামাজিক ও রাজনৈতিক পঠভূমিকায় অনুভব করেছেন সরকারের রাজস্ব আয়ের খুব সামান্য অংশই প্রজাদের কল্যাণের জন্য অবশিষ্ট থাকে। রাজশক্তির সঙ্গে প্রজাদের এই অসাম্য কমিয়ে আনার জন্যই তিনি ‘সমবায়’ এর উপর গুরুত্ব দিয়েছেন। এতটা দুঃখ দুর্দশার মধ্যে প্রজাদের আয়-রোজগার করার উপায় শিক্ষা ও স্বাস্থ্যসুবিধা সর্বোপরি সমাজে বিদ্যমান অসাম্যের বিরুদ্ধে জয়ী হতে হলে একত্রিত হতেই হবে।



এর কোন বিকল্প নেই। এই প্রসঙ্গে রবীন্দ্রনাথ বলেন, এমন একসময় ছিল যখন ধনীর ওপর সমাজের দাবী ছিল। ধনী তার ধনের কল্যাণধর্মী ব্যবহার করত। তাদের সামাজিক দায়বদ্ধতা ছিল। এখন সমাজনীতির পরিবর্তন হয়েছে। এখন ধনের ভোগ ব্যক্তিগত, রাষ্ট্র বা সমাজের ধন এখন আর লোকহিতে নিযুক্ত নয়, ফলে লোক সাধারণ আপন কল্যাণ সাধনে অক্ষম। আজ ধনীর শহরে এসে ধনভোগ করছে। ফলে গ্রামের মানুষরা আপন ভাগ্যের কার্পণ্য নিয়ে হাহাকার করছে। তাদের ভেতরে যে লুকানো শক্তি আছে আত্মশক্তি উদ্বোধনের মাধ্যমে তাদের যে নিজেদের বাঁচবার উপায় আছে, সেই বিশ্বাস তারা যেন হারিয়ে ফেলেছে। সেজন্য রবীন্দ্রনাথ আত্মশক্তি অর্জনের ওপর গুরুত্ব দিয়েছেন, লোকসাধারণের ঐক্যের কথা বলেছেন, সংঘবদ্ধ হতে বলেছেন, সমবায় গঠনের কথা বলেছেন।

সমবায় পর্বে রবীন্দ্রনাথ বলেছেন—“একলা মানুষ টুকরা মানুষ। মানুষ যদি মিলতে না পারে তাহলে তাদের ভরসার পরিবেশ তৈরী হবে না।” আর এই ভরসাই যে একটি মস্তবড় সম্পর্ক সে কথাটি রবীন্দ্রনাথ খুব স্পষ্ট করে বলেছেন। ঐক্যের কথা বলতে গিয়ে তিনি বলেছেন একা অন্ন ভক্ষণ করা যায়, তাতে হয়ত পেট ভরে। কিন্তু পাঁচজন মিলে খেলে পেটও ভরে, আনন্দও মেলে আর আত্মরক্ষাও পায়। সেজন্য তিনি ধন অর্জনে সকলের অংশগ্রহণের ওপর জোর দিয়েছিলেন। আজকের সমাজে আমাদের একটা বড় সমস্যা দরিদ্রের সমস্যা, রবীন্দ্রনাথ কিন্তু তার সমবায় প্রথার মাধ্যমে দরিদ্র্য নিরসনে সচেষ্ট হয়েছিলেন। আমাদের প্রত্যেকের মধ্যে যে অন্তর্নিহিত শক্তি আছে তার উদ্বোধন করে আমরা যে দরিদ্র্য থেকে মুক্তি পেতে পারি, সেকথা কবি তার সমবায় পর্বের লেখায় এমনভাবে বলেছেন—“আমাদের প্রত্যেকের মধ্যেই ধন নিহিত আছে, এই সহজ কথাটি বুঝলে এবং কাজে খাটালে তবেই আমরা দরিদ্র্য থেকে বাঁচব।” (সমবায়নীতি)

‘সমবায় ২’ প্রবন্ধে রবীন্দ্রনাথ বলেছেন যে, দল বেঁধে থাকা, দল বেঁধে কাজ করাই মানুষের ধর্ম। এই ধর্ম থেকে বিচ্যুত হলেই মানুষ লোভ, ক্রোধ, মোহের মত রিপূর শিকারে পরিণত হয়। ধনীর ধনে দরিদ্র্য হরণের ক্ষমতা যে নেই, সে কথাটাই তার সমবায় ভাবনার মূলে রয়েছে। তিনি বারবার বলেছেন লোকসাধনার ধন-উৎপাদনের ক্ষমতাজর্জনের মাধ্যমেই দরিদ্র্য নিরাসন সম্ভব।

রবীন্দ্রনাথ বিশ্বাস করতেন ভারতবর্ষের টেকসই উন্নয়নের ভিত্তি হচ্ছে পল্লী উন্নয়ন ও পুনর্জাগরণ। কারণ দেশের অধিকাংশ মানুষ গ্রামে বাস করেন। তাই গ্রাম বাংলার মানুষদের আত্মবিশ্বাস ও ঐক্যের শক্তি জাগিয়ে তুলতে পারলেই তার নিজেদের সমস্যার সমাধান করতে পারবে। তিনি বলেন—“আমাকে চেষ্টা করতে হবে আমাদের সকলের কর্মশ্রমকে স্থলিত করে অর্থশক্তিকে সর্বসাধারণের জন্য লাভ করা, একেই বলে সমবায়নীতি (রবীন্দ্র রচনাবলী, চতুর্দশ খণ্ড)

আজ থেকে 100 বছরেরও বেশি সময় আগেই রবীন্দ্রনাথ বাংলার কৃষকদের মুক্তি চেয়েছিলেন। তিনি স্পষ্টই দেখেছিলেন ঐক্যবদ্ধ হওয়া ছাড়া প্রান্তিক মানুষ কখনোই এগিয়ে যেতে পারবে না। তিনি ভেবেছিলেন যান্ত্রিক কৃষির



কথা, আধুনিক প্রযুক্তিনির্ভর কৃষির কথা। রবীন্দ্রনাথের এই পরিচয় এখনো বেশিরভাগ মানুষেরই অজানা। আজ আমরা যে বিশ্বায়নের ভাবনা ভাবছি স্থানীয় সরকার উন্নয়নের কথা বলছি কৃষকদের সংগঠিত শক্তির কথা বলছি এ সবকিছুই উৎসারিত হয়েছিল রবীন্দ্রনাথের মাথা থেকে। তিনি কৃষকদের একত্রিত করে সমবায় খামার গড়ার স্বপ্ন দেখতেন। তিনি তাঁর স্বপ্নকে বাস্তবে রূপায়িত করার জন্য কুষ্টিয়ার 'লাহিড়িপাড়া'কে একটি আদর্শ গ্রামে পরিণত করার চেষ্টা করেন। সেখানে তিনি পশ্চিমবঙ্গের পঞ্চায়েত ব্যবস্থার মত একটি কার্যকর স্থানীয় সরকার ব্যবস্থা চালুর উদ্যোগ নেন। সেখানে বিভিন্ন পেশার মানুষদের নিয়ে একটি গুচ্ছগ্রাম গঠন করেন এটি ছিল বহুমুখী সমবায় ব্যবস্থার একটি উন্নত রূপ। পরবর্তীকালে রাগের বশবর্তী হয়ে আশেপাশের জমিদারদের বাহিনী গুচ্ছগ্রাম ধ্বংস করে দেয়। সমবায়ের সবচাইতে বড় উদ্যোগটি নেয়া হয়েছিল শ্রীনিকেতনে। ১৯২২ সালের ৯ ও ১০ ফেব্রুয়ারির শ্রীনিকেতনের বার্ষিক উৎসবে 'সমবায় নীতি' নিয়ে বক্তৃতায় রবীন্দ্রনাথ বলেন—“মানুষ খাটো হয় কোথায়, যেখানে সে দশ জনের সঙ্গে ভালো করিয়া মিশিতে পারে না।”

তিনি আরও বলেছেন—“যাহাদের মনে ভরসা নাই, তাহাদিগকে ভিক্ষা দিয়ে, সেবাশুশ্রূষা করিয়া, কেহ বাঁচাইতে পারে না, ইহাদিগকে বুঝাইতে হইবে, যাহা একজনে না পারে তাহা পঞ্চাশ জনে জোট বাঁধিলেই হইতে পারে, তোমরা যে পঞ্চাশ জনে চিরকাল পাশাপাশি পৃথক পৃথক চাষ করিয়া আসিতেছে, তোমরা তোমাদের সমস্ত জমি, হাল-লাঙল, গোলাঘর, পরিশ্রম একত্র করিতে পারিলেই গরীব হইইয়াও বড়ো মূলধনের সুযোগ আপনিই পাইবেন।” ‘সমবায়নীতি’ প্রবন্ধে রবীন্দ্রনাথ জমির খণ্ডবিখণ্ডতা যান্ত্রিক চাষাবাদ ও বিপণন, প্রয়োজনীয় অর্থের জোগান সব কিছুর সমাধানেই সমবায়ের গুরুত্বের কথা বলেছেন। তিনি বলেছেন—“সমবায় নীতি অনুসারে চাষের ক্ষেত্রে একত্র করে চাষ না করতে পারলে কৃষির উন্নতি হতেই পারে না।” (রাশিয়ার চিঠি)

রবীন্দ্রনাথ লক্ষ্য করেছেন গ্রামে খেতের পরে খেত অনেকে চাষ করে। কারো দুই বিঘা, কারো চার কারও বা দশ বিঘা। জমিগুলি ভাগে সমান ছিল না, সীমানা ছিল আঁকাবাঁকা। এতে সীমানায় হাল ঘোরানোর সময় গোরুরকে অনেক পরিশ্রম করতে হতো, ফলে অযথা অনেক সময় নষ্ট হত। সমবায়ের ধারণা থেকে রবীন্দ্রনাথ লিখেছেন—“যদি প্রত্যেক চাষা কেবল নিজের ছোট জমিটুকুকে অন্য জমি থেকে সম্পূর্ণ আলাদা করিয়া না দেখিত যদি সকলের জমি এক করিয়া সকলে একযোগে মিলিয়া চাষ করিত, তবে অনেক হাল কম লাগিত, অনেক কাজে মেহনত বাঁচিয়া যাইত।” (সমবায়—১, সমবায়নীতি)

- রবীন্দ্রনাথ বলেছেন কৃষকদের খণ্ডখণ্ডভাবে জমি চাষ এবং বিপণনে কেবল তাদের শ্রম ও অর্থের অপচয় ঘটছে না, মূলধনের সঞ্চয় ক্ষতিগ্রস্ত হয়েছে। তখন ফসল চাষ হলে তা প্রত্যেক চাষির গোলায় তোলার জন্য আলাদা আর গাড়ির ব্যবহার হত না। রবীন্দ্রনাথ ভাবলেন, যদি সব চাষা একত্রিত হয়ে একটি গোলায় ধান তুলতে পারত এবং এক জায়গা থেকেই বিক্রি করত তাহলে অনেক শ্রম ও খরচ বেঁচে যেত।



রবীন্দ্রনাথ বিশ্বাস করতেন, তাদের সমস্ত জমি, হাল-লাঙল, গোলাঘর পরিশ্রম একত্রিত করলে বড় মূলধনের সুযোগ পাওয়া যায়। তিনি বলেছেন—“কোনো চাষীর গোয়ালে যদি এক সের দুধ বাড়তি থাকে, তাহলে সে দুধ দিয়ে ব্যবসা করতে পারবে না। কিন্তু যদি একশো দেড়শো চাষীর গোয়ালে বাড়তি দুধ থাকে তাহলে সমস্ত দুধ একত্র করে ঘি, মাখন এ সবের ব্যবস্থা করতে পারে।”

রবীন্দ্রনাথ সমবায়ের মাধ্যমে শ্রম, সময় ও জমির অপচয় বন্ধ করে কৃষির উৎপাদনশীলতা বাড়ায়ে পক্ষপাতী ছিলেন। তিনি সমবায়ভিত্তিক উদ্যোগের মাধ্যমে কৃষিতে ব্যয়সাপেক্ষ আধুনিক কৃষিপ্রযুক্তি যন্ত্রপাতির ব্যবহারে উৎসাহ দিয়েছেন। আজকের ভারতবর্ষের চাষাবাদে যে লক্ষ লক্ষ পাওয়ার টিলার ও ট্রাক্টর দেখতে পাই তা রবীন্দ্রচিন্তারই ধারাবাহিকতা। রবীন্দ্রনাথ মনে করতেন, ভারতবর্ষের দরিদ্র অসহায় কৃষকদের স্বাবলম্বী করে তোলার জন্য সমবায়ের কোন বিকল্প নেই। তাঁর মতে দারিদ্র্য থেকে দেশকে বাঁচাবার একমাত্র উপায় হলো এই কো-অপারেটিভ প্রণালী, রবীন্দ্রনাথের এই সমবায় নীতি পরবর্তীকালে শিলাইদহ, পতিসর ও শান্তিনিকেতনে বিভিন্ন সমবায় গঠন করে দরিদ্র কৃষকদের আর্থ-সামাজিক অবস্থার উন্নয়নে বিরাট ভূমিকা রাখে।

শ্রীনিকেতনে দুই ধরনের সমবায়ই জনপ্রিয় হয়েছিল। কৃষিবিদ লিওনার্ড এলমহাস্টের সক্রিয়তায় এবং অর্থানুকূলে ব্যাপকভাবে দরিদ্র গ্রামবাসীর সর্বাঙ্গীন উন্নয়নের জন্য শ্রীনিকেতনের কর্মধারা শুরু হয়। বোলপুরের অনতিদূরে সুরুল গ্রামের কুটিবাড়িটি সিংহ পরিবারের থেকে কিনে কৃষি গবেষণার্থে শ্রীনিকেতন শুরু হয় ১৯১৪ তে। হস্তকারুশিল্প গড়ে তোলার উদ্যোগ ও নেওয়াই ১৯২২ থেকে শিল্পভবন কার্যকরী ভূমিকা নেয়। হস্তকারু শিল্প—যেমন চামড়া, সূঁচ, মাটি ও গালার কাজ, শতরঞ্চি বুনন, ব্রুক ছাপা যন্ত্র চলতে থাকে। বিভিন্ন জেলা থেকে শিল্প সংগ্রহে উদ্যোগ নেওয়া হয়। কাঁথা শিল্প, মাটির বাড়ির, বাঁশের বা বেতের শিল্পকাজ। শাড়ির পাড়ের নকশা ইত্যাদি তৈরীর উদ্যোগ নেওয়া হয়। এছাড়াও গ্রামীণ বৃদ্ধ-বৃদ্ধাদের থেকে লোকসংগীত, লোকসাহিত্য, টোটকা, ছড়া, বচন ইত্যাদি শেখানোর ব্যবস্থা করা হয়। ১৯২৬ সালে শ্রীনিকেতনে ডাক্তারখানা স্থাপিত হয়, ১৯২৭ সালে প্রতিষ্ঠা হল সমবায় কেন্দ্রীয় ব্যাঙ্ক, শ্রীনিকেতনে ছাত্রদের নিয়ে উন্নত ধরনের কৃষি ও কারিগরি শিক্ষা, গ্রাম্য যুবকদের ও কৃষকদের প্রতিশিক্ষণ, গবেষণাগারের মাধ্যমে কৃষি উৎপাদন ও উপকরণের উন্নয়ন ও সম্প্রসারণ। সমীক্ষা মাধ্যমে কৃষিব্যবস্থার সমস্যা উদ্ঘাটন ও সমাধান প্রয়াস, প্রয়োজনীয় ও পরিচিত ফসল ছাড়া বিভিন্ন ফসলের চাষ, গোরু ছাগল মৌমাছি, মাছের চাষ, উৎপন্ন পণ্যের বাজার দর যাচাই করা হয়। শ্রীনিকেতনকে কেন্দ্রে রেখে সমবায় আন্দোলন ছড়ায়। শ্রীনিকেতনে ষাট বিঘা মতো খামারের আয়তন ছিল। সেচের জন্য মাঝখানে একটা বড় দিঘি ছিল। গতানুগতিক ফসলের বাইরে শাকসবজি, ফলমূল উৎপাদনেও নজর দেন তিনি। নজর দেন উন্নত জাতের হাঁস মুরগি ও গবাদি পশু পালনে। সেই সঙ্গে জমির উর্বর যাতে না কমে, সেদিকেও খেয়াল রাখেন। সার, বীজ এসবের সুষ্ঠু ব্যবহারে আর উপযুক্ত কৃষিতে উৎপাদিকা শক্তি ও উৎপাদন বাড়ানোর কৌশলও কৃষকদের শেখানো হয়। রবীন্দ্রনাথ তাঁর জীবদ্দশায় শ্রীনিকেতন প্রতিষ্ঠার দারুণ সাফল্য দেখে গেছেন।



উপসংহার

কৃষি ও পল্লীর জনজীবন উন্নয়নে রবীন্দ্রনাথের ভাবনা আজকের দিনেও দারুণ উপযোগী। জীবন জীবিকা ও অর্থনীতির প্রক্ষেপে তাঁর দর্শন সত্যিই অভাবনীয়। তিনি বলেছেন, " কোনমতে খেয়ে পড়ে টিকে থাকতে পারে এতটুকু মাত্র ব্যবস্থা কোন মানুষের পক্ষেই শ্রেয় নয়, তাতে তার অপমান। যথেষ্ট পরিমাণে উদ্বৃত্ত অর্থ, উদ্বৃত্ত অবকাশ মনুষ্যত্ব চর্চার পক্ষে প্রত্যেক মানুষের প্রয়োজন। কিন্তু তার সৃজনশীলতার প্রেরনাকে আমরা কাজে লাগাতে পারছি না। এ নিয়ে গবেষকদের মধ্যেও অনেক খেদ রয়েছে। আমাদের সমাজের অনেক উন্নয়ন ইস্যুতেই রবীন্দ্রনাথের চিন্তাচেতনা হতে পারে মডেল, কিন্তু সেগুলো তলিয়ে দেখাই হয় নি। আজ পর্যন্ত আমরা কবি সাহিত্যিক রবীন্দ্রনাথকে নিয়ে যতটা নাচছি, ততটা ভাবি না তাঁর দেশ গড়ার সুত্রগুলি নিয়ে। বহু যুগ পার হলেও রবীন্দ্রনাথের এ দিকগুলো নিয়ে খুব বেশি গবেষণা যেমন হয় নি, তেমনি এগুলির দিকে দৃষ্টি পড়ে নি নীতিনির্ধারকের। আজ সময়ের প্রয়োজনেই এ দিকটা মনোযোগ দেওয়া অপরিহার্য। আমাদের কৃষি, আমাদের খাদ্য নিরাপত্তা, আমাদের অর্থনীতি, আমাদের গ্রাম উন্নয়ন, আমাদের সমবায়, আমাদের সমাজব্যবস্থা, আমাদের সংগঠন এ সব ক্ষেত্রে রবীন্দ্রনাথের বিশাল অবদানকে কাজে লাগানোর ব্যাপারে আমরা যত দ্রুত আন্তরিক হতে পারব, বা অনুসরণ করতে পারব তত দ্রুত আমরা খুঁজে পাব দিশেহারা প্রান্তিক মানুষদের মুক্তি। সবার কাছে তাই আমার বিনীত আহ্বান আসুন এক উন্নয়ন মনক রবীন্দ্রনাথের চর্চায় আমরা ব্রতী হই।

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IMPACT OF GYMNASTICSTRAINING ON SELECTED PHYSICAL PARAMETERS OF SCHOOL GIRLS

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Abstract:

Flexibility is a part and parcel of physical fitness and physical fitness stands on body composition. Actually Gymnastics make a man complete- physically as well as mentally. Purpose: The study intended to find out the impact of gymnastics training on flexibility of different parts of the body and body composition among school girls. Sixty (N=60) school girls of Howrah District, West Bengal were selected at randomly as subjects for the present study. The age limit of the subjects was 10-12 years. All the subjects were divided in to two equal groups such as Gr. E and Gr. C. Gr. E was experimental group who were practiced gymnastics activities and Gr. C was control group. Initially Flexibility measures in various joints in the body and Body Composition (Such as BMI, % of body fat and LBM) were employed to all the subjects of both the groups and thereafter specific gymnastic training were given to Gr. E for four days in a week and continued six months and finally the subjects were retested on criterion measures. The data were analyzed by t-test to find out the effects of the treatment. The result of the study showed that the all flexibility measures, body mass index, % of body fat and lean body mass were improved significantly among gymnastics group after six months training.

Keywords: Body Composition, Gymnastics, flexibility.

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Introduction:

The term 'Gymnastics' derived from Greek word meaning 'to exercise naked'. Gymnastics develop various component of physical fitness such as strength, flexibility, agility, co-ordination, balance and grace. Flexibility is a part and parcel of physical fitness and physical fitness stands on body composition. Flexibility may be defined as a joint's ability to move freely or normal range of motion and body composition refers to the lean tissue and fat tissue in the body. Actually gymnastics make a man complete- physically as well as mentally. Attitude and self-concept are complex component of mind and they develop through gymnastic activities. Gymnastic activities are not only the reflection of body and



mind but also a contribution of oneself and the eternal power. Attitude and self-concept are complex component of behavior. Attitude may be defined as a complex mental state involving belief, feelings and values and disposition to act in certain ways. Self-concept may be explained as a person's perception about him or himself. Bondopadhyay, K (2012) studied on related variables and stated that different flexibilities of body parts and body composition were improved significantly due to one year gymnastic activities among school boys. Bala and Thakur (2013) studied on self-concept and attitude among school boys and results revealed that gymnastics improved above mental components due to one year treatment among young school boys. DusanDordevicet. al. (2022) proved that the usage of whole-body vibration platform shows flexibility improvements in artistic gymnasts, both male and female. **Methodology:** Sixty (N=60) school girls of District Howrah, West Bengal State were selected at randomly as subjects for the present study. The age limit of the subjects was 10-12 years. All the subjects were divided into two equal groups such as Gr. E and Gr. C. Gr. E was experimental group and Gr. C served as control group. Initially all the flexibility measures of different parts of the body and body composition such as body mass index (BMI), % of body fat (%BF) and lean body mass (LBM) were employed to all the subjects of both groups and thereafter specific gymnastic training were given to Gr. E for six months and finally the subjects were retested on criterion measures. The data were analyzed by paired t-test to find out the effects of the treatment. **Treatment consists of following gymnastic activities:** Rolling- forward and backward, cart wheel, front turn and back turn, split sitting, handstand, handspring, round-off, back flip, front and back salt. Prior to gymnastic activities all the subjects of Gr. G performed warm up exercise for 15 minutes. Gymnastics activities were assigned according to degree of difficulty in four phases. Duration and repetition and degree of difficulty were increased gradually at four phases during the treatment season. The concept of the treatment programme was framed on the basis of Rhythmic and Educational Gymnastics. [Http://www.mnps.org/page:11294.aspx](http://www.mnps.org/page:11294.aspx) **Result and Discussion:** All the flexibility measures and body composition were analyzed by paired t-test and level of significance was set up at .05 level of confidence.

TABLE-1: Mean and S.D. of flexibility among Gr. E and Gr. C

Variables	Test	Gr. E (N=30)			Gr. C (N=30)		
		Mean	SD	t	Mean	SD	t
Wrist flexion (Degree)	Pre-test	87.3	2.13	5.11	87.33	2.03	0.24
	Post-test	92.4	2.04		87.53	1.65	
Wrist extension (Degree)	Pre-test	49.86	2.08	6.72	49.3	1.41	0.49
	Post-test	55.76	1.56		49.46	1.45	
Elbow flexion (Degree)	Pre-test	138.8	2.55	2.65	138.83	1.94	0.46
	Post-test	144.66	2.15		139.2	3.08	
Knee flexion	Pre-test	134.2	2.31		133.73	2.46	



(Degree)	Post-test	140.63	2.55	7.98	1.33.9	2.33	0.56
Ankle dorsi flexion (Degree)	Pre-test	24.16	2.08	3.68	24.3	1.93	0.14
	Post-test	29.4	2.09		23.93	1.59	
Ankle Planter flexion (Degree)	Pre-test	39.26	1.99	2.37	38.1	1.79	0.01
	Post-test	46.1	1.82		37.53	1.52	
Spine flexion (Inch)	Pre-test	13.23	1.73	2.32	13.4	1.49	0.002
	Post-test	8.83	1.14		13.93	1.74	
Trunk flexion (Inch)	Pre-test	1.98	0.28	5.15	1.98	0.17	0.30
	Post-test	8.42	1.71		1.96	0.14	

*Significant at .05 level of confidence.

Table-I represents the mean values of pre-test and post-test for wrist flexion, wrist extension, elbow flexion, knee flexion, ankle dorsi flexion, ankle planter flexion, spine flexion and trunk flexion of Gr. E and Gr. C. The t-values of Gr. E for all flexibility measures were 5.11, 6.72, 2.65, 7.98, 3.68, 2.37, 2.32 and 5.15 respectively. To be significant at .05 level of confidence the t-value should be greater than 2.01. In this case, so all the t-values of Gr. G were significant at .05 level of confidence for improving all flexibility measures. The t- values of Gr. C for all flexibilities measures were 0.24, 0.49, 0.46, 0.56, 0.14, 0.01, 0.002 and 0.3 respectively. The t values of Gr. C in relation to improvement of all flexibility measures were not significant at .05 level of confidence.

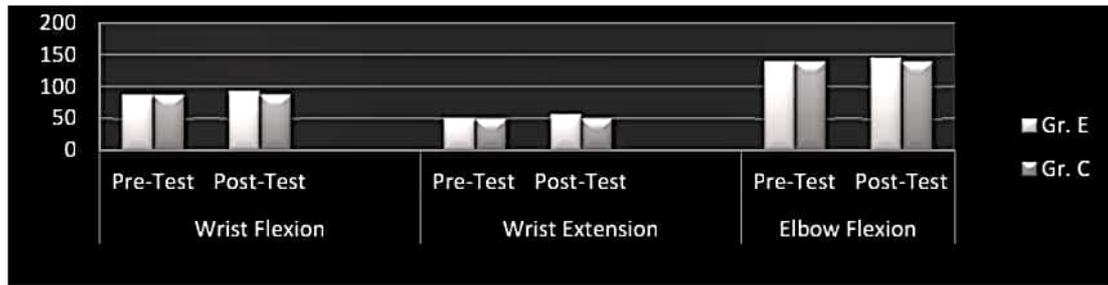


Fig. 1: A comparison of means of pre and post test data on wrist flexion, wrist extension and elbow flexion among Gr. E and Gr. C.



Fig. 2: A comparison of means of pre and post test data on knee flexion, ankle dorsi flexion and ankle planter flexion among Gr. E and Gr. C.

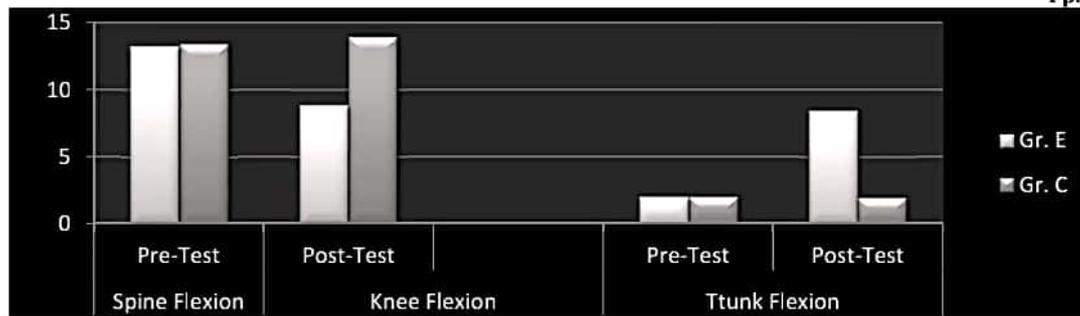


Fig. 3: A comparison of means of pre and post test data on spine flexion and trunk flexion among Gr. E and Gr. C.

Flexibility has been considered not only a component of physical fitness but has been considered as a quality of every individual for a better movement, motor coordination and creative-esthetic performance. In this study eight flexibility measures were tested. The result of the present studies showed that gymnastics improved all flexibility measures such as wrist flexion, wrist extension, elbow flexion, knee flexion, ankle dorsi flexion, ankle planter flexion, spine flexion and trunk flexion significantly at .05 level of confidence after six months treatment. These improvements have been presented bar graph (1-3). In this study gymnastics were used as the way of treatment which involved static stretching, ballistic stretching and dynamic stretching. Liang Chao (2020) investigated on gymnastics in colleges and universities, strengthening the training of athletes' flexibility are an inevitable requirement to improve the athletes' level of gymnastics. The result of the present study corroborates with the finding of Locken and Willoughby (1967), Jenson and Fisher (1979), Cureton(1941), Downic(1970), Baley (1977), Ghildial (1980), Bondapadhyay(2012) and partly with the study of Kim & Park (2006) and Boraezynski&Urinaz (2009).

TABLE-II: Mean and S.D. of Body composition among Gr. E and Gr. C

Variables	Test	Gr. G (N=30)			Gr. C (N=30)		
		Mean	SD	t	Mean	SD	T(0.05)
Body Mass Index	Pre-test	14.23	2.07	9.33	14.1	1.80	0.013
	Post-test	10.9	1.24		14.53	1.33	
% of Body Fat	Pre-test	14.08	1.71	7.28	14.78	1.48	0.15
	Post-test	10.48	0.96		14.94	1.31	
Lean Body Mass	Pre-test	22.33	3.01	2.12	22.93	2.54	0.47
	Post-test	24.41	2.66		23.08	2.17	

*Significant at .05 level of confidence

Table-II represents the mean values of pre and post-test for body mass index, % of body fat and lean body mass of both the groups; i.e. Gr.E and Gr. C. The t-values of body mass index, % of body fat and lean body mass of Gr. E were 9.33, 7.28 and 2.12 respectively. The t values of Gr. E in relation to improvement of body mass index (BMI), % of body fat (%BF) and lean body mass were significant at .05 level of confidence after six monthstraining. The t-values of body

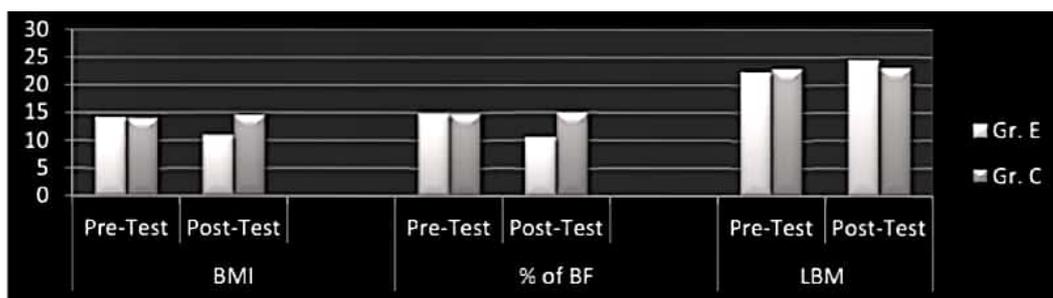


Fig. 4: A comparison of means of pre and post-test data on Body Mass Index, % of Body Fat and Lean Body Mass among Gr. E and Gr. C.

In this study, body mass indexes, % of body fat and lean body mass were considered as the component of body composition. Table-2 showed that introduction of gymnastic training as mean of treatment improved significantly the body mass index scores (Fig. 4). Body mass index is a guide in relation to health of various age group especially pre-school, school children and adolescents. The body mass index for 10-12 years age group should fall off to 12-15. In the present study body mass index scores stand in the same range, so they are not underweight, not over weight but just right. Kim and Park (2006) observed improvement of body mass index after introducing an exercise programmed among college female students. On the other hand Mukhopadhyay et. al. (2005) opined improvement of BMI among school students. Bandopadhyay (2012) Found that the improvement of BMI of school boys due to gymnastic activities. The result of the present study has similarity with the above studies but Harris et. al. (2009) observed no significant improvement in BMI after introducing only school based physical activity. Body fat percentage is the superior gauge of an individual's fitness level, as it is the only body measurement which directly calculates the particular individual's body composition. Actual level of body fat percentage depends upon gender and age. Some body fat percentage levels are related to better health or improved athletic performance. In the present study, Table-2 reflects the result of pre and post test of body fat percentage after six months treatment of gymnastics were significantly improved at .05 level of confidence. These improvements have been presented by bar graph (Fig. 4). Pauscale (1955) found that body fat percentage decreased after introducing a physical training course. On the other hand, Kim and Park (2006) observed the effect of an exercise programme on percentage of body fat among obese female college students and found significant



improvement. According to American Council of Exercise the acceptable percentage of body fat for men should be between 18-25%. On the other hand, for girls of 10-12 years age group the healthy range of fat is 12-23%. Table-2 also represents the result of lean body mass among Gr. E and Gr. C. Significant improvement was found among Gr. E at .05 level of confidence after six months treatment. But no significant improvement was found among Gr. C at .05 level of confidence after six months treatment. It has been presented by bar graph (Fig.4). All the components of body composition improve by six months gymnastics training. Faria and Faria (2012) studied the relationship between the physical characteristics of young elite male gymnasts and their competitive performance. Based on the results, gymnasts of the first class had a shorter stature, more relative strength and absolute strength, more shoulder flexion, lower back and pelvic, higher muscle mass and lower percentage of fat. Lindner, Caine & Johns (2013) examined the physical and functional predictors of competitive withdrawal in female gymnastics. The results of the study showed that dropout gymnasts are older, taller and weigh heavier, which were the reason for their higher strength, power, speed and endurance. Discontinued gymnasts with less skinny physics/ectomorph with less muscle had better recordings in most of the flexibility tests.

Conclusion:

It may be concluded that all flexibility measures such as wrist flexion, wrist extension, elbow flexion, knee flexion, ankle dorsi flexion, ankle planter flexion, spine flexion and trunk flexion were improved significantly due to six months treatment of gymnastic activities. Significant improvement of Body Mass Index, % of Body Fat and Lean Body Mass were observed by administering one year treatment of gymnastic activities but lean body mass was not improved significantly due to one year treatment of gymnastic activities.

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PRODUCTIVITY ANALYSIS OF SELECTED INDIAN STEEL COMPANIES DURING LIBERALIZATION: A MALMQUIST APPROACH

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Abstract

This study is an empirical analysis based on secondary data. For the purpose of our study we select eight companies operating in iron and steel industries and the period study is ranging from 2012 to 2023. We have applied input oriented Malmquist productivity index to decompose productivity change into two parts namely changes in efficiency and changes in the level of technological progress. It is observed from our year wise decomposition analysis across the companies reveal that in majority of the years average values technological progress have found to be positive but the level of efficiencies affect the productivity changes of the companies. Further, company level average results reflects that 6 out of 8 companies have made remarkable progress in the arena of technological progress by investing more on intangibles whereas only 2 companies out of eight have achieved efficiency in their production process. Surprisingly, the impact of inefficiencies are the major constraint in the area of total factor productivity changes.

Keywords : Iron and Steel Industry, Liberalization, Efficiency, Technological Progress, Malmquist Index

(Paper published on 1st December, 2023.)

I. Introduction:

This is known to all that at the earlier world economy the yardstick of economic development was measured in terms of expansion in the production of iron and steel. However, the previous concept is shifted towards the direction of innovation and invention but still one cannot deny the role of secondary sector in the growth dynamics



of any country. With the use of improved technology which is the outcome of investment in intangible asset every country across the world is trying to expand the secondary sector as well as tertiary sector for providing employment. For the rapid growth in the production of goods there is a pervasive need of processed iron and steel. The same is true for the country India also. India is now the fifth largest economy in the world (above 3 trillion) and the recent policy in the name of “Make in India” helps secondary sector to grow up through best manufacturing infrastructural facilities and adequate investment opportunities domestically as well as globally. Before, 2014 Indian economy has witnessed a remarkable growth in the service sector coupled with a marginal improvement in the secondary sector in terms of their contributions to GDP and fall in the contribution of primary sector i.e. agricultural and allied sector. Moreover, it has been observed that more than 50% of the working age population are working in the primary sector indicating the fall in the productivity of labours working in the primary sector. So to provide job opportunity as well as enhancing the living standards of the people in India expansion of secondary sector with modern technology is crucial. So we in this paper analyze the productivity of selected eight Indian companies belong to iron and steel industry to judge whether they are actually able to take the benefits of recent government policy towards the improvement of secondary sector. Now the reason for selection of iron and steel industry amongst the other industries belong to secondary sector is that India is the third largest producer of crude steel in terms of volume behind China and Japan and the growth of Indian iron and steel industry is due to per capita use of iron and steel compare to world average and the need of iron and steel for generating infrastructural facilities (Ohlan,2019). We all know for greater improvement in the secondary sector the role of total factor productivity is undeniable over the time and one have to gain knowledge about the causes of such productivity change.

Against this backdrop this paper seeks following questions:

- (1) Whether the companies are operating efficiently? and
- (2) Whether there is any productivity change and the cause of such changes.



Our remaining paper is structured as follows: Section II shows review of literature; section III represents methodology and database; section IV shows the analysis of results and finally section V represents our concluding observations.

II. Brief review of Literature:

Literature in this area is plenty and we can separate these on the basis of their nature and focus. Bhunia and Brahma (2009) in their study using a panel framework have tried to establish a relation between liquidity and profitability of the selected private steel companies in India over the period from 1997-98 to 2005-06. Bhunia and Khan (2011) have also attempted the same on Indian steel companies. On the other hand Chavali and karthika (2012) in their study using Z-score have tried to assess the financial soundness of Indian steel companies and found a positive results. However, Hemashree, K (2022) has focused on the financial performance of steel industry in India and advocated for the existence of sound financial management systems for steel companies in India. Chellasamy and Selvakumar (2019) in their study on “Profitability Analysis of Select Steel Companies in India” have found less satisfactory financial position of selected steel companies and the constraint is the scope of export that affects these companies more than any other factor. Further, Karuppuswamy (2021) has conducted same type of study and found that uneven progress in the growth of the companies belonging to steel industry. Again in a study made by Dwivediet. al. (2013) on the efficiency measurement of Indian steel industry have found that Tata Steel have achieved efficiency while there is uneven pictures regarding efficiency of the companies of India. However, in another study done by T.Venkatesan and S.K.Nagarajan (2012) on the analysis of profitability of selected steel companies in India by using several statistical tools have found strong correlations between operating profit and net profit in case of SAIL and Tata and JSW and Bhushan steel companies. So there is no study as such that focuses on the productivity decomposition of the Indian steel companies during post liberalization period and to find the reason increase in the productivity level. Moreover, there is no study that consider intangible asset as input for their analysis. This motivates us to undertake this study.

III. Methodology and Database:

This study is a micro-level study. For this purpose we have selected eight steel companies on the basis of market share across the steel companies operating in India (see appendix table-1). The basic objective of this study is to analyze the growth of total factor productivity of selected



companies over the period ranging from 2012-2023. Again, to compute productivity growth and its components we take two inputs namely fixed capital and intangible capital and we consider one output i.e. sales revenue. For the purpose of decomposition of productivity growth we have applied input oriented Malmquist productivity index. We all know that Malmquist index is used to evaluate the change in productivity of a particular decision making unit (DMU) between two time periods. This index is nothing but the product of two components namely “catch-up” and “frontier- shift”. The Malmquist productivity index (MPI) can be expressed in terms of distance function (D) as equation (i) and (ii) using the observations in period t and t+1:

An input oriented MPI can be expressed as follows:

$$MPI_t = D_t^t(X^{t+1}, Y^{t+1}) / D_t^t(X^t, Y^t) \dots \dots \dots (i)$$

$$MPI_{t+1} = D_{t+1}^{t+1}(X^{t+1}, Y^{t+1}) / D_{t+1}^{t+1}(X^t, Y^t) \dots \dots \dots (ii)$$

The geometric mean of the two above MPI equations will be

$$MPI_t^G = (MPI_t \cdot MPI_{t+1})^{1/2} \dots \dots \dots (iii)$$

Or $MPI_t^G = [D_{t+1}^{t+1}(X^{t+1}, Y^{t+1}) / D_t^t(X^t, Y^t) \cdot [D_t^t(X^t, Y^t) / D_{t+1}^{t+1}(X^t, Y^t) \cdot D_t^t(X^{t+1}, Y^{t+1}) / D_{t+1}^{t+1}(X^{t+1}, Y^{t+1})]^{1/2} \dots \dots \dots (iv)$ which is nothing but the product of change in efficiency and technological progress between two periods.

We have collected all relevant data from the Prowess database of CMIE.

IV. Analysis and Interpretation of results :

At the very outset of our analysis of data we present descriptive statistics of the variables. As we mentioned earlier that we select eight companies and analyze data of each companies over the period from 2012 to 2023 in a panel framework. Moreover, we have considered two inputs and one output for the purpose of our analysis and all variables are expressed at INR in millions. This is evident from text table-1 that the gap between maximum values and minimum vales are high indicating the expansion of the companies over time. Dispersion from mean is very high for all variables indicating larger volatility over time. Kurtosis is positive for all variables and it is greater than 3 indicates that distributional is not normal so we apply non-parametric method here.

	SALES	PAT	TANGIBLE ASSETS	INTANGIBLE ASSETS
Mean	259904.1	16620.46	208306.3	2840.924
Median	126866.6	2348.95	104008.1	164.1
Maximum	1302880	330111.8	971432.8	18790
Minimum	4228.4	248134.7	609.4	0.8
Std. Dev.	302823.2	51246.74	249873.8	5316.248
Skewness	1.583883	1.442203	1.299601	1.729798
Kurtosis	5.266135	19.10035	3.642032	4.407625
Observations	96	96	96	96

Source : Authors Computation

Further, in case of non-parametric analysis of input oriented Malmquist productivity index we have presented here Malmquist index summary of annual means over the periods of our analysis (see appendix table-2) as well as Malmquist index summary of firm means. This is evident from appendix table-2 that only in case of five years (2018, 2019, 2020, 2021 and in 2023 average total factor productivity changes considering eight firms were positive. On the other hand, barring years 2014, 2018, 2019 and 2022 average efficiency changes were below 1 that indicates inefficiency in the level of operation on an average. This is also explored from appendix table-2 that in the year 2018 total factor productivity change was 15.7% out of which 14.9 % was due to the change in the level of efficiency and the rest are due to the change in the technological progress. Astonishingly, in the year 2019 a remarkable change in the average level of efficiency across the firms brings only 1.6% change in productivity due to heavy decline in the technological progress. Again in 2021 we find that 3.7% change in the average level of technological progress brings about 3.4% of the change in total factor productivity. The year wise average results of Malmquist input oriented productivity index over last 12 years across 8 firms do not reveal satisfactory results. In some cases positive progress in the technological progress was nullified by level of average inefficiency and in few cases positive change in average level of efficiency was mitigated by declining result of technological progress.

Now firm level mean results over the period of our analysis are given in appendix table-3. This is discernable from appendix table-3 that in case of J S W Steel Ltd., Kalyani Steels Ltd. and Rashtriya Ispat Nigam Ltd. the efficiency changes during 2012-23 were positive. However, J S W Steel



Ltd., JayaswalNecoInds. Ltd., Jindal Stainless Ltd., Kalyani Steels Ltd., RashtriyaIspat Nigam Ltd. and Tata Steel Ltd. changes in average values of pure efficiency were positive but only in case of J S W Steel Ltd. and RashtriyaIspat Nigam Ltd. mean values of changes of scale efficiencies were remain at satisfactory level. It has also been seen from appendix table-3 that average changes in the technological progress of Jindal Stainless Ltd., RashtriyaIspat Nigam Ltd., Tata Steel B S L Ltd. [Merged], Tata Steel Ltd. and Steel Authority of India Ltd. are positive indicating that these companies invest more on innovation i.e. on intangibles over the period of our study but unfortunately only two companies namely J S W Steel Ltd. and RashtriyaIspat Nigam Ltd. have achieved positive average changes in the productivity growth over the period from 2012 to 2023. Astonishingly we have found that in case of J S W Steel Ltd. 2.1% change in average level of efficiency over the period of our analysis brings about same change in the total factor productivity i.e. the change in the level of efficiency is the main driver of change in the average level of productivity. On the other hand, in case of RashtriyaIspat Nigam Ltd. about 5.3% change in the progress in technology brings about the same average change in the level of total factor productivity. Again, the mean of mean changes in the level of technological progress across the companies are found to be positive from appendix table-3 whereas the mean of mean efficiency changes reveals dissatisfactory results. So it can be concluded that more investment in intangibles brings about positive changes in the productivity but majority of the firms are suffering from input level inefficiency over the period of our study.

V. Concluding observations:

This study is an empirical study based on secondary data. We have decomposed the productivity changes by using input oriented Malmquist approach and present here only year wise and firm level mean results of our analysis. From this study following conclusions have emerged:

1. Majority of the companies operating under iron and steel industry are investing much on the intangibles for innovation and there by achieved technological progress.
2. If we consider the average level of efficiencies of all companies we find that in the years 2014, 2018, 2019 and 2022 all companies have achieved positive change in the same. On the other hand in the years 2015, 2016, 2017, 2018, 2020, 2021, 2022 average changes in the level of technological progress of all firms are found to be positive.
3. Our firm level mean results of efficiency changes of the companies across the companies produce bleak picture. Only three firms show efficiency in their level of operation over the period of our analysis.



4. Again, majority of the companies have achieved technological progress in their operations over the period of our analysis. It indicates the process of innovation is going on but the matter of concern is the level of efficiency i.e. inefficiency in terms of input in terms of their use to produce optimum level of output.

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Appendix table-1 List of the Steel Companies

1	J S W Steel Ltd.
2	JayaswalNecoInds. Ltd.
3	Jindal Stainless Ltd.
4	Kalyani Steels Ltd.
5	Rashtriyaspats Nigam Ltd.
6	Tata Steel B S L Ltd. [Merged]
7	Tata Steel Ltd.
8	Steel Authority Of India Ltd.

Appendix table-2

MALMQUIST INDEX SUMMARY OF ANNUAL MEANS

year effchtechchpechsechtfpch

2013	0.960	0.889	1.056	0.909	0.853
2014	1.066	0.684	1.085	0.982	0.729
2015	0.823	1.134	0.952	0.865	0.933
2016	0.734	1.013	1.091	0.672	0.743
2017	0.699	1.307	0.911	0.768	0.914
2018	1.149	1.007	0.964	1.192	1.157
2019	1.865	0.545	1.093	1.706	1.016
2020	0.797	1.303	1.020	0.782	1.038
2021	0.998	1.037	1.028	0.971	1.034
2022	1.091	0.885	1.034	1.055	0.965
2023	0.667	1.814	0.957	0.697	1.210

mean 0.945 1.008 1.015 0.930 0.952

Source: Author's Computation



Appendix table-3

MALMQUIST INDEX SUMMARY OF FIRM MEANS

firm effchtechchpechsechtfpch

1	1.021	1.000	1.000	1.021	1.021
2	0.941	0.909	1.006	0.935	0.855
3	0.937	1.007	1.100	0.852	0.943
4	1.028	0.961	1.071	0.960	0.988
5	1.000	1.053	1.000	1.000	1.053
6	0.887	1.058	0.968	0.916	0.939
7	0.858	1.044	1.000	0.858	0.896
8	0.901	1.037	0.985	0.915	0.935

mean 0.945 1.008 1.015 0.930 0.952

Source: Author's Computation



WOMEN REPRESENTATION IN NATIONAL AND LOCAL GOVERNMENT -A GLOBAL ANALYSIS.

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Abstract:

This cross-country study analyzes the current gender inequality in positions of power in local and national governments. While some countries have achieved success to overcome this gender inequality, others have taken less initiative and have made it almost impossible to achieve equal opportunities for women in political sphere. Despite the fact that women are almost half of the world's population, women are marginalized in government in the majority of countries worldwide. This study examines variation in women's political representation in executive government positions, in national parliaments and in local government. The study suggests that although the number of women entering into the politics is increasing, challenges still persist and this needs to be solved to ensure gender parity throughout the world.

Keywords: Political representation, women empowerment, gender equality, International Parliamentary Union, United Nation, local government.

(Paper published on 1st December, 2023.)

Introduction:

Democracy means participation and involvement of all citizens in socio-political activities and in decision making process of the country. Gender equality is the basic requirement for getting proper democratic government. Both women and men have equal status in the society and they have equal share in world's total population. So they demand equal share in all aspect of life and their equal participation in decision making and implementing bodies is an indicator of efficient democratic society. But the fact is that though women constitute almost 50 percent of the global population, they are underrepresented in decision-making processes at all governance levels around the world. Different psychological factors, social and economic structures of the society, political factors restrict women to enter into these decisions making process of the society and the result is gender inequality, under representation of women in every sphere in the society. Women empowerment is key step required to alleviate the society's discrimination against women and to establish their own right. Women's empowerment is essential for social advancement and sustainable development in addition to the question of justice and human rights.

Women political empowerment is one important component of women empowerment. Women political empowerment can be achieved through participation of women in politics. Political participation means exercising the right to vote and it includes other activities like membership of political party, electoral campaigning, attending party meetings, holding of party positions, contesting elections, membership in representative



bodies, participation in decision making. Meaningful political participation of women including representation in national and local governments has positive impacts on the well-being of women and their communities and also on the development of a country and has become most important focus on global development policy. Now the question is if women become political leaders, policymakers then what will happen? Why our world needs more women in politics? Actually female political participation brings sustainable development.

But inspite of the existence of a numerous number of international conventions and legal laws guaranteeing women's political rights, we are still far from the global goal of gender equality. At the international level different action plans to uplift women status in the society are taken by bodies like Inter-Parliamentary Union (IPU) - a global organisation of national parliaments, the United Nations (UN) Commission etc. UN Convention on women's empowerment gives the basis for equality between men and women by establishing women's equal access and equal opportunities in political and public life including the right to vote and to stand for election as well as education, health and employment. In 1979 the UN Commission adopted the Convention on the elimination of all types of discrimination against women that often termed as an International Bill of right for women. The Beijing Declaration and Platform for Action is an important document for establishing women's rights and gender equality worldwide, taken in the 4th World Conference of United Nation on women in 1995. In September 2000, at the UN Millennium Summit, the UN General Assembly adopted the United Nations Millennium Declaration and framed 8 Millennium Development Goals (MDGs) to be achieved by 2015, which included promoting gender equality and women empowerment. In September 2015 the UN General Assembly adopted the new development agenda, called 2030 agenda for sustainable development and framed 17 Sustainable Development Goals (SDGs) to be achieved by 2030 of which Goal 5 seeks to "achieve gender equality and empower all women and girls", ensuring "women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.

All over the world women are less likely than men to be elected both at national level and at local level. Although there is a general legal provision for equality of women and men in political life but the reality is different. Stereotype views about the role women in society are major obstacles to women's political representation. These views affect women's position in the society and reduce women's likelihood of entering in politics. The role of political parties in supporting women's political representation is also very important. In general political parties are very much reluctant to give space to women to enter into politics.

The paper examines the worldwide status of women political participation. Here we analyse mainly the following aspect of political participation.

- 1) Women in executive government positions.
- 2) Women in local government
- 3) Women in national parliaments.

Worldwide view of Women political empowerment:



Despite of continuous movement towards the attainment of gender equality in most countries, Global Gender Gap Report 2022 says that the gender gap in Political Empowerment is the widest among the four gaps that are Economic Participation and Opportunity, Educational Attainment, Health and Survival, and Political Empowerment recorded by World Economic Forum.

Table1: World regional performance on Political Empowerment dimension, 2023

Region	Political Empowerment dimension
Central Asia	10.9%
East Asia and the Pacific	14%
Europe	39.1%
Latin America and the Caribbean	35%
Middle East and North Africa	14%
North America	26.1%
South Asia	25.1%
Sub-Saharan Africa	22.6%
Global average	22.1%

Source: World Economic Forum, Global Gender Gap Index, 2023.

The percentages indicate the gender gap that has been covered.

According to the Global Gender Gap Index reports, at the present rate of progress over the year 2006- 2023, it will take another 162 years to bridge this political empowerment gender gap. Europe has attained highest gender parity in political empowerment dimension at 39.1%.

Overall Norway, Iceland and Finland have the high score on the Political Empowerment sub index, while Cyprus, Romania and Hungary are at the bottom. Latin America and the Caribbean has bridged 35% of its gender gap on political empowerment sub index and this region has the second-highest score, after Europe on the Political Empowerment sub index. North America has covered the gap by 26.1 %. Though both in United States and Canada share of parliamentary positions occupied by women has increased, the share of women ministers has dropped significantly which negatively affect the overall regional score on this sub index. After Europe, Latin America and the Caribbean, and North America, Southern Asia has the fourth-highest score among above shown regions at 25.1% gender parity. Middle East and North Africa and East Asia and the Pacific have the second-lowest gender equality in political empowerment at 14%. Central Asia is the lowest in gender parity in Political Empowerment. Its score of 10.9% is only a half the global score of 22.1%. Only Armenia, Ukraine and Tajikistan have made some improvements. While nearly 20% of ministers in Moldova and Ukraine are women, Azerbaijan is one with a male-only cabinet.



1) Women in executive government positions-

Women political participation is an indicator of gender equality and social progress. According to IPU report 2023, 11.3% of total world countries have women Heads of State (17 out of 151 countries, monarchy-based countries excluded), and 9.8% have women Heads of Government (19 out of 193).

Among all regions, Europe has the maximum number of countries led by women. World's Women represent 22.8% of Cabinet Ministers in 2023. Europe and North America (31.6%), and Latin America and the Caribbean (30.1%) have the share of women in cabinets above the world average. However, in most other regions, women are badly under-represented remain as low as 10.1% in Central and Southern Asia and 8.1% in the Pacific Islands. Only 13 countries, mostly in Europe, have gender-equal cabinet, with 50% or more of women cabinet members. Following are the countries that have 50% or more women representation in cabinet.

Table2: Percentage of women in Cabinet.

Country Name	% of women in cabinet
Albania	66.7
Finland	64.3
Spain	63.6
Nicaragua	62.5
Liechtenstein	60.0
Chile	58.3
Belgium	57.1
Mozambique	55.0
Andorra	50
Colombia	50
Germany	50
Netherlands	50
Norway	50



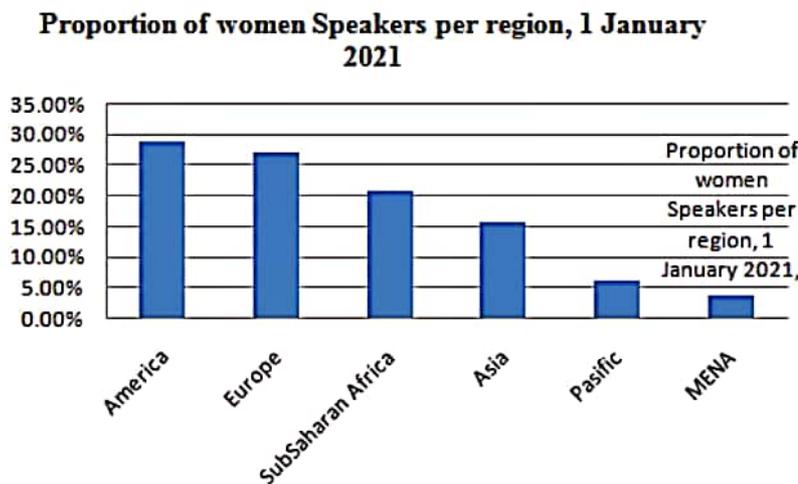
Source: IPU Report, 2023

There are another 17 countries mostly in Europe where percentage of women in cabinet varies from 40% to 49%. Again in 9 countries mostly in Western and central Asia, women have zero representation in cabinet. Around the world five most commonly ministerial portfolios held by women cabinet ministers are women and gender equality, family and children affairs, social inclusion and development, social protection and social security, and indigenous and minority affairs.

Parliamentary Speakers-

Parliamentary speakers have the highest authority in legislative body. They generally have the powers to organize and oversee parliamentary affairs. Women were in speaker positions in all regions of the world in 2020 with regional differences. The global average was 20.9 per cent. This rate was pushed upward direction by high rates in the Americas (29.1 per cent), Europe (27.1 per cent), and Asia (15.9 per cent), the Pacific (6.3 per cent) and the Middle East (4 per cent) pulled the global average in downward direction.

Figure1: Regional Variation in Proportion of Women Speakers 2021.

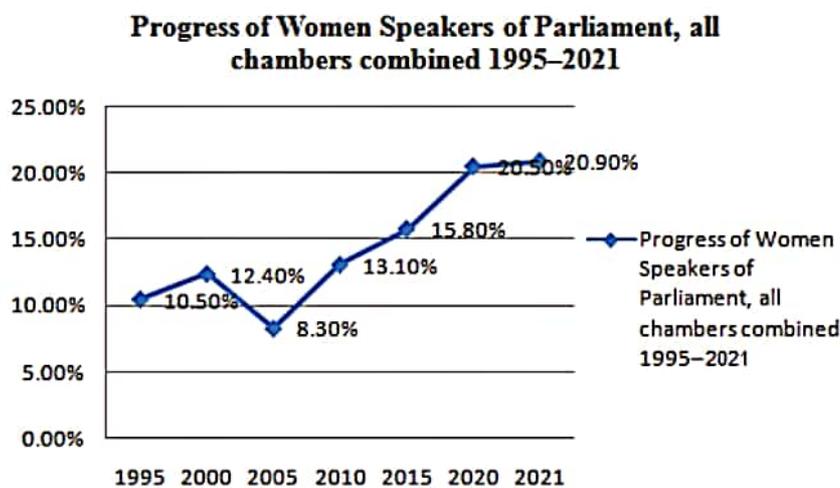


Source: Inter-Parliamentary Union (IPU) data.

Currently women are working as parliamentary speakers in all the regions of the world. The following diagram shows the overall progress of women speakers in parliament from 1995-2021. Though very slow but the participation of women in parliament as speaker is growing over the time.



Figure2: Progress in Women Speakers of Parliament 1995-2021



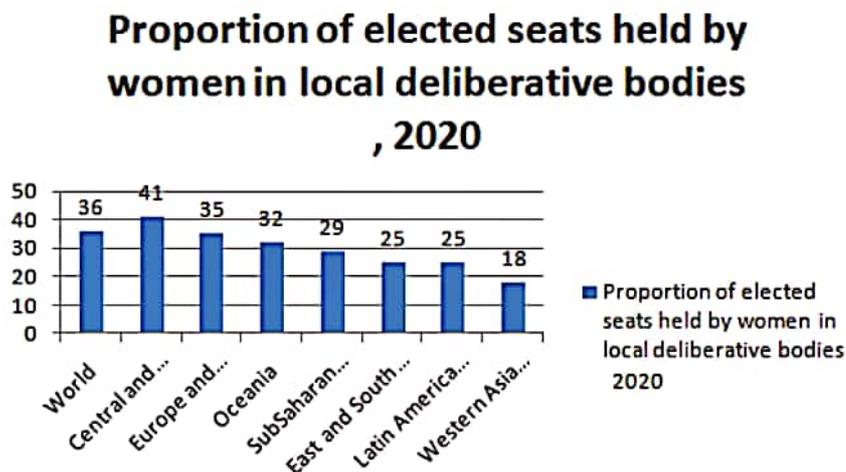
Source: Inter-Parliamentary Union (IPU) data.

2) Women Representation in Local Government

Women participation in local government is more than that in parliaments, still women are underrepresented in local bodies. Only a small number of countries have attained gender equality in local government and in the majority of countries, women's underrepresentation is severe. Women quotas have a remarkable positive effect on women's representation in local government, particularly in different countries of Asia, Africa and can break the male dominated political leadership system. Though electoral systems with proportional representation and mixed systems are related with higher representation of women at the local government level, however in the absence of quota system, their impact is less. Countries that have quota system have higher representation of women in local bodies.



Figure3: Regional variation in proportion of elected seats held by women in local government 2020



Source: UN Women (2020)

Women representation in local bodies varies from nearly 1% to 67%, with a world average of 36% in 2020. Women share in total elected seat in local bodies is maximum in Central and Southern Asia (41 %) and Europe and Northern America (35 %) while minimum in Western Asia and Northern Africa (18 %).

3) Global Position of Women Representation in National Parliament

Women representation in national parliament is one indicator of getting an idea about women participation in politics and women political empowerment. The following table shows world average of women in parliament in 2023.

Total MPs	37,395	7050	44445
Men	27,471	5209	32680
Women	9,924	1841	11765
Percentage of women	26.5	26.1	26.5

Source: <https://data.ipu.org/women-averages>

IPU data on Women in Parliament as of 1st January 2023 indicates that only 26.5 and 26.1 percent seat of lower house and upper house of parliament were occupied by women. Combining both house together it stood only 26.5% where as women population is almost half of the total world population.

Over a 20-year period (2003-2023), the percentage of seats held by women in national parliament has increased worldwide from 15.3% in 2003 to 26.7% in 2023.

Figure 4: Worldwide Percentage of Seats Held by Women in National Parliament 2003 – 2023

Reports on Women in Parliament.

the IPU, in 2003, Europe and the Americas were the only two regions with 20% or more of legislative seats at the national level. In 2023, more than 20% representation of women in national legislatures is found in 100 countries.

The difference in percentage of women in national parliament is significant. The following table shows these differences in 2023.

World and regional averages of women in parliament 2023

Lower house (per cent)	Upper house (per cent)	Both houses Combined(per cent)
45.7	-	-
34.9	34.6 %	34.9 %
31.1	30.7 %	31.0 %
29.5	30.7 %	29.8%



Nordic countries)			
Sub-Saharan Africa	26.6	26.1 %	26.5 %
Asia	21.2	19.4 %	21.0 %
Pacific	19.5	49.4 %	22.6 %
Arab States	17.7	11.3 %	16.3 %
world	26.5	26.1	26.5

Source: <https://data.ipu.org/women-averages>

According to the IPU report 2023 large variation in women representation in parliament is seen between the Regional Countries in relation to the representation of women. Women representation in parliament is highest in the Nordic countries, while the lowest 16.3 percent in the Arab states. 34.9 percent parliament seats are occupied by women in the US and Sub-Saharan Africa countries, this figure is 26.5per cent. In Asia, despite being the world's most populous continent, only21% parliamentary seats are reserved by women. A trend from 1995 to 2023 in world and regional averages of women representation in parliaments can be seen from the following table.

Table5: Trend in world and regional averages of women representation in parliaments.

	1995	2023
Americas	12.7%	34.9%
Europe	13.2	31



significant gains in women's representation took place despite security challenges and the figure is 26.5%. The IPU said these sub Saharan countries are example to the fact that women's role in transition processes is the key to their political empowerment. The percentage of women in parliament is lowest in the Middle East and North Africa region with 16.3 per cent on average. Pacific region have also low levels of women's political representation. In November 2022, a remarkable thing was achieved for the first time that there was at least one elected woman in every pacific parliament. In Asia, the overall share of women in parliament is 21 per cent, but is below the global average. Countries in Europe made impressive progress in 2023 with the share of women in parliament rising to 31 per cent over all. Although women representation rate in parliament has crossed one fourth of total seat still this rate is not at all impressive. Our world is not yet ready to attain gender equality in politics by 2030 and according to the Inter-Parliamentary Union at this progress rate it will take another 50 years to reach gender equity.

Though we have to wait several years to enjoy a true democratic society in all over the world, the good thing is that women are securing more and more seat in national parliament around the globe and a large no of countries are implementing parliamentary reservation for women to ensure better representation of women in parliament. The following table shows world's Top 15 countries that have largest share of women in lower house of parliament 2023.

Table6: World's Top 15 countries that have largest share of women in lower house of parliament 2023.

Sl no.	Country	% of Women in Lower House of Parliament
1	Rwanda	61.3
2	Cuba	53.4
3	Nicaragua	51.7
4	Mexico	50.0
4	New Zealand	50.0
4	United Arab Emirates	50.0
5	Iceland	47.6
6	Costa Rica	47.4
7	Andorra	46.4
7	Sweden	46.4



8	South Africa	46.3
9	Bolivia	46.2
9	Norway	46.2
10	Senegal	46.1
11	Finland	45.5
12	Argentina	44.8
13	Namibia	44.2
14	Denmark	43.6
15	Mozambique	43.2

Source: IPU Report 2023.

In 2023, women held 50% or more of the legislative seats in six countries: Cuba, Rwanda, Nicaragua, Mexico, New Zealand, and the United Arab Emirates. The good thing is that in 2023 every functioning parliament in the world has at least one women representative. All the above countries have women representation in parliament more than 40%. Obviously these countries are progressing well. Rwanda stands first with its lower house 61.3 percent female as of January 2023. That is largely because of its horrible genocide of 1994 that left the country with 70% female population. Rwanda was bound to implement sweeping changes and open society to women, part of which was a quota mandating that women hold 30 percent of political seats. Rwanda became the global leader in terms of expanding women's inclusion in politics. In 2008, Rwanda was the first country in the world to elect a female-majority parliament. Women realized this achievement in large part thanks to a gender quota system instituted in 2003. Beyond achieving gender parity in the legislature, Rwanda has adopted numerous laws since 1995 that promote and enhance protection of women's rights. These laws have placed sexual violence during the genocide among the gravest genocide crimes; extended equal inheritance rights to girl children; ensured women's rights to land ownership and wives' rights to have their names appear along with their husbands on deeds; and criminalized marital rape, domestic violence, and other forms of gender-based violence. Cuba has the second highest share of women in its parliament at 53.4 percent, followed by Nicaragua with 51.7 percent. New Zealand, Mexico, and the United Arab Emirates have no gender inequality between men and women in their representation in parliament. All of the four latter countries have gender parity laws in place for their national assemblies, while Cuba uses unofficial affirmative action plans throughout the one-party state system. While Iceland, Costa Rica, Sweden and South Africa, Bolivia, Argentina, Norway, Denmark are not far off.

Though world is facing different movements for establishing a true democratic society, women remain largely marginalised at almost all the levels of political parties, especially in ministerial and other executive bodies All over the world women are facing multi-dimensional obstacles to participate in politics though the nature and extent of these obstacles varies across regions. Different interrelated factors that are mainly responsible for the low rate of women participation in politics may be categorised as socio-economic factor,



psychological factors and political and institutional factors. Socio economic obstacles are mainly family responsibilities of women, lack of education and low financial power of women, violence, harassment and less security faced by the women. For these reasons women are becoming reluctant to enter into politics and the result is low representation of women in government. One common psychological believe is that politics is suitable for male and it is always controlled by men. The masculine nature of politics, lack of party support, limited access to political networks, and lack of quota are identified as major political obstacle to women. Political parties play an important role to encourage women to enter in politics. It is seen that many women are active at the grassroots level activities for their parties, but very few occupy senior positions in parties. The party laws may be effective and can incorporate provisions to increase the political participation of women, such as a gender equality agenda in the party constitution. It is the party quotas that seem to be very effective in increasing women presentation that is seen in the Nordic countries.

Conclusion:

In this paper a databased analysis has been done on women's political participation at all levels of government. Here we analyse the worldwide picture of women representation in government executive positions. With a large variation across the world Europe, North America and Latin America and the Caribbean are in better position than Central and Southern Asia, Pacific Islands and Africa. As far as women participation both in national government and local government are concerned, the same picture is seen with little variations. All over the world women are fighting to establish their right in political sphere. While in some region of the world women have achieved a lot whereas in some other regions this achievement is very unsatisfactory. Different socio economic, cultural, political factors are mainly responsible for this situation. Here the role of political parties and government is important. Proper women's presence in different government position all over the world is a necessity that affects the social, political and economic structure of nations. Yet their access to these important legislative structures is limited. It is essential to overcome these challenges for a true democratic institution, and for the respect of the human rights. A true effort is needed to cover all the obstacles faced by women in case of women's political participation,

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**EDUCATIONAL INSTITUTIONS IN COLONIAL DARJEELING (1856-1947)****Arpana Kalden**

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Email: arpana.kalden17@gmail.com**Abstract:**

The educational system is a fundamental element in the regional development, and in the second half of the 19th century, following British colonization of Darjeeling, colonial education, notably Western education, was introduced to the region. This marked a significant transformation in the field of education due to colonization. This paper aims to highlight the evolution and changes in educational institutions in Darjeeling during the colonial period from 1856 to 1947 and assess the impact of this education on the local population.

Key Words: Education, Development, Western Education, Colonization and Darjeeling.

(Paper published on 1st December, 2023.)

Introduction:

Education, viewed from a technical perspective, can be succinctly described as the purposeful transmission of a society's collective knowledge, skills, and values from one generation to the next. However, in its broader context, education encompasses any endeavor or experience that profoundly influences an individual's intellectual growth, character, or physical aptitude. Delving into the historiography of Indian education during the 19th and early 20th centuries reveals a narrative that extends beyond conventional textbook accounts, often sporadic and of varying quality. Instead, it predominantly examines the transformative impact of Western education, which gained prominence alongside the expansion of British influence in the colonial era. As various interpretations rooted in opposing ideological perspectives have emerged regarding the introduction and evolution of Western or colonial education, it has given rise to substantial debate among historians. Notably, the British imperial education policy, fiercely contested during the colonial period, remains a subject of contention among contemporary scholars, underscoring the pressing need for a comprehensive reassessment of the historiography surrounding this complex and multifaceted topic.

The British colonial education policy began in India in 1813 with the dual purpose of promoting both Oriental Culture and Western science. However, the British employed a strategy of emotional and intellectual colonization in India to further their political interests and consolidate their control over the region. This policy allowed them to exert influence not only through the dissemination of knowledge but also by shaping the values, beliefs, and thinking of the Indian population, ultimately serving their colonial agenda.



Sir Charles Wood's Educational Despatch of 1854 was a pivotal document that significantly influenced the development of education policy in British India during the 19th century. This policy emphasized the promotion of Western education, including arts, science, philosophy, and literature, alongside traditional Indian education. It encouraged the use of vernacular languages, advocated for the establishment of universities and colleges, and emphasized government funding and local community involvement in education management. The Despatch marked a critical moment in shaping India's modern educational system, balancing indigenous and Western knowledge, and its principles continued to guide educational policies for years to come.

The Charter Act of 1833 and Thomas Babington Macaulay's famous "Minute on Indian Education" in February 1835 were instrumental in shaping the direction of education in British India. The Charter Act of 1833 laid the groundwork by making English the official language, which had significant implications for education and administration. Macaulay's "Minute" further solidified this by advocating for the promotion of English education and the adoption of Western knowledge and culture in India. His statement, "We must do our best to form a class who may be interpreters between us and the millions whom we govern, a class of persons Indian in blood and colour, but English in taste, in opinions, words and intellect" reflects his belief in creating a class of Indians who were culturally and intellectually aligned with the British rulers. This approach aimed at producing individuals who could serve as intermediaries between the British colonial administration and the Indian population, facilitating the spread of English language and culture while changing the educational landscape in India.

The history of education in India has been deeply intertwined with the social, economic, and political systems of different periods. Early education in India was typically under the guidance of a guru (teacher), with an emphasis on traditional subjects such as religion, mathematics, and logic, taught in Hindu and Buddhist centers of learning like Taxila and Nalanda before the Common Era. With the arrival of Islamic empires in India during the Middle Ages, Islamic education became influential. However, the advent of European colonialism in India introduced Western education. Throughout the 19th and early 20th centuries, the Gurukul system of education was prevalent, and education was often monopolized by the higher castes and religious institutions. The process of laying the foundation for modern education in India began with a series of measures implemented throughout the early half of the 20th century. These initiatives played a crucial role in shaping the education system in the Republic of India, promoting access to education for a broader segment of the population and introducing a more standardized and modern curriculum. This historical context reflects the diverse influences and developments that have shaped India's educational landscape over the centuries.

The British established a significant presence in Darjeeling due to its appealing geography, providing relief from the disease-ridden plains and offering a cooler, healthier climate. Two British officers, Arthur Campbell and Lieutenant Robert Napier, played key roles in its development as a hill station. Campbell's efforts to promote trade and cultivation led to a substantial population increase between 1835 and 1849. To cater to the growing British population, infrastructure like schools and clubs was established, fostering a sense of community. This hill station served as a sanctuary from the heat and disease of the Indian plains, and it has a unique historical significance in the region.



Education in Pre - British Darjeeling:

In the pre-colonial era of the Darjeeling Hills, the Lepchas, Nepalese, and Bhutias constituted the original inhabitants, with the village comprising a mere hundred huts. These indigenous communities had their own informal system of education, often centered around nature and the environment, with a deep understanding of the local flora and fauna. The Nepalese primarily focused on agriculture and trade, while the Bhutias were actively involved in trade, interacting with the Nepalese community. Over time, the region saw an influx of other communities from the plains, such as the Marwaris and Biharis, attracted by trade opportunities, leading to cultural and demographic diversification. Formal education was limited among the native people prior to 1835, as their education primarily revolved around practical knowledge gained from their surroundings. The native people of the Darjeeling Hills had distinct religious beliefs, cultural traditions, customs, and economic activities that were deeply rooted in their communities. Education for them was practical and life-centric, often passed down from elders within the family, making homes the primary institutions of learning. Skills and practical knowledge were highly valued as a form of education. Various forms of art, such as singing and dancing, played a significant role in promoting education. Traditional dances like Sangini Dance, Maaruni Dance, Dhaan Naach (related to paddy cultivation), and Gaon Khaney Katha were not only forms of artistic expression but also conveyed cultural and agricultural knowledge. Folk songs and dances, including Deusi-Vailo during Diwali, were an integral part of their culture. Additionally, storytelling was a cherished practice, where one person would narrate stories, and another would interpret them, with adults listening and gaining knowledge of divine traditional wisdom and moralistic lessons. This form of storytelling transmitted concepts of devotion and the triumph of good over evil. Such cultural practices were especially important for the elderly, providing not only entertainment but also valuable moral education.

In the hill region of Darjeeling, traditional education was primarily a result of socialization within families, where both children and adults learned skills like agriculture, artisan crafts, and traditional medicine. Monastic education in Buddhist monasteries was the formal education system before British colonial rule. However, in the 19th century, British education replaced indigenous systems, marking a significant shift in the education landscape of the region, as was the case in colonial India more broadly.

Education in British Darjeeling:

The present education system in India, particularly in the context of Darjeeling, can be traced back to the initiatives of the East India Company and later British India. Starting in 1858, the British Crown and its administrators began controlling education policy, a trend that continued until 1919, when Indian ministers at the provincial level took over. The foundation for this formal education system was laid out in Wood's Education Despatch of 1854, which was the first official document presenting a national education policy. This policy outlined the British government's role in providing schooling and emphasized the need to educate groups who may not have access to education otherwise. In response to these developments, the first government school in Darjeeling was established on September 20, 1856, with an initial enrollment of 33 pupils. This marked the beginning of formal education in the region, reflecting the changing educational landscape under British colonial rule.



The Indian Education Commission of 1882, commonly referred to as the Hunter Commission, was established by Lord Ripon on February 3, 1882, with William Hunter as its chairman. The commission conducted a comprehensive examination of primary education issues and made the following key recommendations: promoting self-dependence among students, providing primary education in the mother tongue of the students, assigning responsibility for primary schools to District Boards, Municipal Boards, and Town Areas, and establishing open schools for the training of primary school teachers. These recommendations aimed to improve and expand primary education in India during the colonial period. Between 1883 and 1884, primary grants in Bengal saw a significant increase, rising from Rs. 1200 to Rs. 3126 by 1884-85. Educational conditions varied across districts. In 1888, institutions such as St. Joseph School, Darjeeling Home School, and Mount Hermon were founded. St. Helen School was established in 1890. In 1890, the government established the Girl's Boarding School for Nepali, Bhutia, and Lepcha girls in Darjeeling. However, because of the increased interest of Nepali girls, the school was elevated to the high school level and renamed the Nepali Girls' High School in 1942. The Church of Scotland mission girls' school, established in Kalimpong in March 1905, initially focused on vocational training and basic education for women and girls, and by 1924, it transformed into the Kalimpong Girls' High School, likely becoming one of the early institutions in the district to use Nepali as the medium of instruction up to the Middle examination. Established in 1908, Darjeeling's Maharani Girls' School was the first Indian-managed and privately operated educational institution for Indian girls in the district, offering modern education through the medium of Bengali, with Hemlata Sarkar as its founder. In 1932, the Sisters of Saint Joseph de Cluny established the St. Philomena Middle English Girls' Day School for hill children in Kalimpong, while in 1938, the St. Joseph Girls' School was founded in Kurseong and later upgraded to a high school in 1944.

In 1937, a significant development occurred in Indian education with the introduction of the Basic Scheme of Education by Mahatma Gandhi. He aimed for his education scheme to be self-supporting, emphasizing that true education should be self-sustaining. In October 1937, an All India Educational Conference was convened in Wardha, presided over by Mahatma Gandhi, shortly after he had published articles on his educational ideas in the Harijan. The conference formed a committee with Dr. Zakir Husain as its chairman to create a tentative scheme and syllabus based on the conference's resolutions. Both the Zakir Hussain Committee of 1937 and the Central Advisory Board of Education in 1938 advocated using vernacular or Indian languages as the medium of instruction in education. The Second Committee of the Central Advisory Board of Education in 1939 and the Sargeant Commission in 1944 recommended an eight-year primary education system for students aged 6 to 14, divided into junior basic and senior basic stages. In addition to this, the passage briefly mentions the increase in primary grants from Rs. 1200 to Rs. 3126 in 1884-85 and the varied state of education in northern districts of Bengal in the same period, with Darjeeling and Coochbehar having the lowest enrollment rates at 8-10%, while districts like Hooghly, Howrah, Burdwan, Midnapur, and 24 Parganas had higher rates ranging from 43-55.6%. Furthermore, it highlights the establishment of educational institutions, such as St. Joseph School in Darjeeling, starting from 1888. Darjeeling Home School was founded on March 1st, 1892. Mount Hermon, an educational institution affiliated with the Methodist Episcopal Church of America, is a co-educational school that was established in 1895 and is located in North Point, Singamari. The school was originally founded by Emma L. Knowles, who served as its first principal. Initially known as Arcadia, it later gained fame as Queen's Hill School.



The Hartog Committee of 1929 was established to assess the overall state of education in India. The committee identified issues in primary education, citing ineffectiveness, wastage, and stagnation. Their recommendation emphasized strengthening the existing institutional structure rather than expanding it. In 1937, a significant development occurred with Mahatma Gandhi introducing the Basic Scheme of Education. Gandhi's vision aimed for self-supporting education, believing that genuine education should be self-reliant. Following this, an All India Educational Conference was convened in October 1937 in Wardha, presided over by Mahatma Gandhi. Subsequently, a committee led by Dr. Zakir Husain was appointed to develop a tentative scheme and syllabus in line with the conference's resolutions. Both the Zakir Husain Committee of 1937 and the Central Advisory Board of Education in 1938 advocated the use of vernacular or Indian languages as the medium of instruction. The Second Committee of the Central Advisory Board of Education in 1939, along with the Sargeant Commission in 1944, advocated for a primary education system lasting eight years, commencing at the age of 6 and concluding at the age of 14. This eight-year primary education was to be structured into two distinct stages: junior basic and senior basic education.

On the brink of India's independence in 1946-47, the Darjeeling district boasted a limited educational infrastructure, including 322 primary schools, 23 middle English schools, 10 European or Anglo-Indian high schools, 11 Indian high schools, three intermediate colleges, 1-degree college, three craft schools, and three teachers' training schools. A pressing issue in the district has long been unemployment, leading to a diaspora of its youth. Despite these challenges, the Darjeeling hills hold a proud history of educational institutions, offering hope and relevance for the local population, showcasing the enduring importance of education in the region.

Conclusion:

In conclusion, prior to 1947, various organizations worked diligently to combat illiteracy and promote education among the hill people of Darjeeling District. Notably, the success of industrial schools in Kalimpong was a testament to the region's educational potential. Oversight by the Inspector of Schools in Jalpaiguri, coupled with the role of Education Committees, the District Board, and municipalities, laid the groundwork for educational progress in the hill region. Local bodies responsible for primary education administration performed satisfactorily, leading to the establishment of numerous effective primary institutions and expanding opportunities for higher education. Despite challenges, including limited resources and incentives for teachers, these schools attracted students from diverse backgrounds, fostering a collective understanding of the significance of education in daily life. Notably, education in the native language from primary to secondary levels, implemented in 1940 through the New Regulations for the Matriculation Examination of Calcutta University, marked a pivotal development. These combined efforts and initiatives contributed significantly to the marked improvements in the quality of education within the hill region.

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ERROR: BLAMING OR BLESSINGS; BREAKING SOME MYTHS ON HUMAN ERROR

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Abstract:

Almost everywhere, 'error' and 'failure' are used synonymously. When an operator fails to make the right decision or execute a program to produce the intended outcome, it is called an error. Nevertheless, every error may be a factor leading to a successful action. Highlighting the critical role of error behind a successful action: This article points out the right attitude towards error. We must reconsider our prejudices on error to change our perspective. This article finally explores some myths about human error and analyses them to find the reality.

Key words: right, wrong, moral action error, myth on error, utility of error

(Paper published on 1st December, 2023.)

Study Method: Reference method was used for the present article.

Data Collection: Data was collected through books, journals, websites etc.

Aim and objective:

1. Exploring ordinary people's thoughts on error
2. Analyse why people think so typically about error
3. What is the reality behind the myth of error
4. Find out the exemplary attitude towards error

Introduction:

Error is always interesting as well as unique in nature. We fear error but also always love to talk about error. However, it is not about our own but others. It is more fascinating that we talk about meaningless than meaningful. There is many similar thinking about errors popular among people. Most of these are in no way related to truth. So, we need to know what ordinary people think about it. In this article, they are our myths on human error. There are many such myths about human error. We will analyse five widespread myths among them. This is not the fact that people intentionally make such a myth or that they are only responsible for creating such misconceptions. However, they are just trapped in this concept traditionally and unknowingly. It is also true that we can be free from this misconception. For that, we have to know them and analyse them. This can be called the philosophical analysis of human error. It will help us to remove our irrelevant views on error and motivate us to change our attitude towards error.



The five myths analysis here are:

- To err is human.
- Errors are the outcome of abnormal performance
- Errors are intrinsically bad
- Error always results in an adverse outcome
- people make errors that are not good enough

i) To err is human

In this context, we start with the most common myth about human error: 'To err is human'. It means committing error is common to human beings. Everybody commits errors. No man is beyond error. We may analyse this myth from two points of view:

Firstly, if we review our past actions, we must find several cognitive and external factors involved in an effort. These factors are constantly changing during an activity. Completing all of these factors is the condition of successful work. They are the positive factors of the action. On the other hand, some factors obstruct the success of an effort, and they are negative factors for that action. To complete, a worker must meet all the favourable conditions and successfully remove all the damaging elements. Thus, an action is not just a single action but a continuous process of numerous activities called the steps of a single action. Therefore, failure in any step among them can ruin the move. So, it is evident that no one can rightfully commit all these parts of an effort. Some errors must take place. Thus, according to the first myth, it is just proper that all men commit mistakes.

Secondly, We may criticise this myth according to the following statement of Reason (1990). "There is usually only one way of performing a task correctly, or at best very few, but each step in a planned sequence of action or thought provides an opportunity to stray along a multitude of unintended or inappropriate pathways."¹

Following Reason, there are very few ways to achieve success. From that perspective, the Probability of error is greater than the probability of success. In explaining this myth, analysing a popular working definition of human error is relevant, that is:

*"Error will be taken as a generic term to encompass all those occasions in which a planned sequence of mental or physical activities fails to achieve its intended outcome, and when this failure cannot be attributed to the intervention of some chance agency."*²

According to this definition, human error is an action with a planning background; at least one operator must execute it, resulting in an unintended outcome. Analysing this definition, we need clarification on what we mean by planning.

- It may mean achieving the desired outcome anyhow or
- It may mean some pre-decided specific steps, following which we may be able to achieve our goal.

¹Reason, J. (1990). *Human error*. New York, Cambridge University press p2

²ibid p. 9



If we take planning according to the first alternative, then there are no differences between removing pain from a finger by medicine and removing pain by amputation of that finger. And there is no doubt that this explanation is not acceptable.

If we go with the second alternative, then there is only one option for a successful action. And that is, if and only if every step of an effort takes place just as planned, then an action must be successful. But if we admit this view, then there is little chance for a move to be successful because for success, according to the changing circumstances, we often manipulate plans or execution.

ii) Errors are the outcome of abnormal performance:

Before Studying this myth, we first clarify what we mean by 'normal performance' and 'abnormal performance'. Generally, by typical performance, we indicate natural or usual routine; by abnormal performance, we mean rare or exceptional performance. So, this myth denies that human errors result from everyday versions, which is unacceptable. The error takes place in our lives very frequently. We observed in the previous chapters that the origins of error are grounded in our natural mental model. So, the error is not abnormal performance. Taking an example of capture error from my own experience, we may explain it.

Once, I was counting dates from the end of a month to the next month. Then naturally, I was counting as "29, 30, 1, 2, 3, 4 . . ." after that, I shifted to a new task of correcting examination papers. Then, while calculating the total marks of answer scripts, I turned to 1, 2, 3, etc, after 30.

Here, the error is not a consequence of any abnormal activity; not only has it occurred in a habitual concert. So, failures are the outcome of normal act but not strange performance.

iii) Errors are intrinsically bad:

It is a trendy impression among ordinary people that errors are intrinsically bad or wrong. 'Bad' or 'wrong' is the opposite of 'good' or 'right'. These are all ethical concepts. "A thing is generally said to be good when it is valuable for some end. Thus, particular kinds of medicine are said to be good for this or that complaint.

Similarly, when we speak of conduct as good, we may mean it is serviceable for the end or ideal we have in view. It should be carefully observed, however, that the term good is also used to signify not something which is a means to an end but something which is itself taken as an end. Thus, the *summum bonum*, or supreme good, means the supreme end at which we aim."³

After this ethical explanation, it may seem that error is an unintended action; that means we fail to achieve our intended outcome due to error. The intended outcome is the aim or end of our action. So, if we take good or bad in a narrow sense, then error is intrinsically wrong because it is not ultimately valuable. However, this narrow sense of right and wrong is rarely used in ethics. If we accept the end as *summum bonum*, then a previous ethical explanation of error will be meaningless. In ethics, the object of moral judgment is the agent's

³Mackenzie, J. S. (1929) *Manual of Ethics* (6th ed.) London, The University Tutorial Press, Ltd. p.2



intention. Here, 'intention' consists of three components: the agent's desired goal, prior plan of action, and the consequences of the action. The action will be good if all three components are considered valuable in an ethical sense.

Nevertheless, in the context of human error, whether that action can produce the intended outcome or not is considered. So, the error is not the synonym of wrong. 'good' or 'bad'. That is entirely another issue. So, we cannot say that error is intrinsically wrong. If we take 'bad' in common sense, we cannot agree with the myth that 'Errors are not intrinsically bad'. It is established in many educational psychology theories that error is essential for the learning process (trial-and-error theory of Thorndike); in that context, error is valuable for learning. So, errors cannot be titled as intrinsically wrong.

iv) Error always results in an adverse outcome:

To understand human error with a positive aspect, explaining the difference between error and its consequences is essential. 'error' often refers to the action and its negative consequences. Sometimes, error means the consequence of an action (I put salt in a coffee mug), but it is only one aspect of human error. Human error does not refer to its consequence only if the prior plan of an action does not enable it to produce the intended outcome, which is also called error (decision error). The point is that when the outcome of an error is unintended, it is not successful. It may result in adverse outcomes or near misses. It may also be an indicator of the system's status.

There is another explanation that can falsify the myth. According to that theory, errors may be understood as deviations from the intended outcome. According to this concept, there are at least three primary characteristics of human error, which indicate the differences between error and its consequences:

- Human error occurs only in a goal-oriented action. Because only goal-oriented action can be intentional.
- Consequences of human error are unintended, and
- Errors have the potential to be avoided, and it was not chance-based. (Ferse and Peters, 1988; Rasmussen, 1987; Reason 1990). That means error and its consequences are not connected in a necessary causal relation. We may analyse human error in at least three steps:
 1. the intention of the action
 2. the execution of the action and
 3. the consequences of the action

So, the consequence is a part of the erroneous action, not the whole. Furthermore, human error is not the only cause behind an adverse outcome. In the examples of error in the practical field, we observed that human error is only one factor of adverse events; many other causes like system failure, changing situations, unpredictable atmosphere, and limitation of human ability are all responsible for an unwanted accident. So, we can never say that error always leads to adverse events.



v) People make errors that are not good enough:

It is also a widespread belief in human beings. They believe it is a universal law that bad things happen to bad people, and good things happen to the worthy. However, this is not an established truth. Following causal relation, it cannot be said that any unrelated factors or bad luck can ruin the best-organized plan in achieving the intended outcome. One basic rule of error management is that the best people can make the worst errors. There are many reasons for this. The best people tend to expand the limit of their experience. They always try to induce new techniques. They are often in a supervisory capacity, and generally, their work is multi-tasking. So they always have a chance to take risks and break the formal rules. All these facts increase the chance of errors among extra-qualified people than a common one. For example, in system management, a manager may sometimes elect to carry out "hands-on" tasks ill-advisedly to avoid being de-skilled (Reason, 1990).

The other perspective is that "bad man" has a disability because "good" or "bad" are ethical concepts. According to ethics, intentional action may be right or good, but it does not apply to human beings. We have already discussed this issue in detail in the previous myth. So, we disagree with this myth.

Conclusion:

Finally, we have observed many misconceptions engraved in the minds of everyday people, and because of these, human errors are considered taboo. It is because we do not think about error but are only concerned about what people think about it. We do these because we do not try to find the blunt end or fundamental factors behind errors but only sharp-end consequences. We also predict that others must judge us without any cognitive intelligence. However, the fact is that our goal is not to find others' errors and hide our own but to avoid our own and help others to reduce their mistake and finally reduce the adverse outcome that is happening without all our desires. So, our goal is the same, and our intention is correct, but we do not work as a team but play against our team. Thus, unknowingly, we fear to admit error. We curse others for their error. Nevertheless, error is not to be hushed up; it can be corrected or handled. It will be possible only when we admit our errors and learn from them to change our attitude towards error.

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Abstract:

জেলা রূপে বাঁকুড়ার জন্ম হয় ১৮৮১ সালে। তার আগে এর নাম ছিল "জঙ্গলমহল"। জঙ্গলমহলের সদর দপ্তর ছিল বাঁকুড়া। ঔপনিবেশিক আমলে বাঁকুড়ায় চিকিৎসা ব্যবস্থায় মূলত দুটি ব্যবস্থা ছিল ১/ আয়ুর্বেদ এবং ২/ অ্যালোপ্যাথিক। ঔপনিবেশিক পূর্ব থেকেই এখানে আয়ুর্বেদ ব্যবস্থা বেশ জনপ্রিয় এবং সাধারণের কাছে সহজলভ্য ছিল আয়ুর্বেদীয় তথা দেশিও পান্থায় উনিশ থেকে বিশ শতকের মধ্যে এ সমস্ত বিশিষ্ট কবিরাজরা ছিলেন তাদের মধ্যে বিনয়ভূষণ সেনগুপ্ত ১৯২৪ সালে মল্লভূম আয়ুর্বেদ মন্ডলের কাছ থেকে আয়ুর্বেদচার্য ও পশ্চিমবঙ্গের পন্ডিত মন্ডলীরকাছ থেকে সিদ্ধান্ত বাচস্পতি উপাধিতে ভূষিত হন। বালসী গ্রামের নীলমাধব সেন "ঠানদিদির কবিরাজ" গ্রন্থটি রচনা করেন এ এলাহাবাদ থেকে প্রকাশিত হয়েছিল।



ইংরেজি শিক্ষা ও পাশ্চাত্য আদর্শের অনুপ্রবেশের ফলে উনিশ শতকের বাংলার ধর্ম, সমাজ ও সংস্কৃতিতে ঐ প্রাণচাঞ্চলের সৃষ্টি হয়েছিল, ঐ ভারতকে আধুনিকতা ও প্রগতিশীলতার মন্ত্রে দীক্ষিত করেছিল তাকেই নবজাগরণ বা রেনেসাঁ নামে অভিহিত করা হয়। সমাজ সচেতনতা ঐমনি সাহিত্যকে পুষ্ট করে, তেমনি সাহিত্যে তদানীন্তন বাঙালি বুদ্ধিজীবীদের বিজ্ঞান চেতনা প্রকাশের প্রধানতম বাহনে পরিণত হয়। ভারতীয়দের বৈজ্ঞানিক দক্ষতা সম্পর্কে ব্রিটিশ প্রশাসকদের অবজ্ঞা এবং ভারতীয়দের আগ্রহ দমনে প্রশাসনিক অসহযোগিতা, বিরামহীন বঞ্চনার বিরুদ্ধে জেহাদ স্বরূপ ভারতীয়রা দেশপ্রেমের অঙ্গ হিসাবে স্বাধীনভাবে বিজ্ঞান চর্চায় ব্রতী হয়। বিজ্ঞান চর্চার এক অপরিহার্য অঙ্গ হল চিকিৎসা বিজ্ঞান চর্চা।

রাঢ় বাংলার এক গুরুত্বপূর্ণ জেলা হিসেবে বাঁকুড়ার আত্মপ্রকাশ ঘটে ১৮৮১ সালে। তার আগে এই অঞ্চল জঙ্গলমহল নামে পরিচিত ছিল। অষ্টাদশ শতাব্দীর শেষ ভাগ পর্যন্ত বাঁকুড়া ছিল নিতান্তই একটি নগণ্য বসতি। কিন্তু কিছুদিনের মধ্যেই বাঁকুড়া নামক অজ পাড়াগায়ের প্রতি ইউরোপীয়দের দৃষ্টি পরে, এবং ইস্ট ইন্ডিয়া কোম্পানির প্রশাসকদের বিবেচনায় বাঁকুড়া গুরুত্ব অর্জন করতে থাকে। সামরিক কারণের পরিপ্রেক্ষিতে বিচার করে কলকাতার কোম্পানি কর্তৃপক্ষ বিষ্ণুপুরের থেকে বাঁকুড়াকেই দেশের এ অংশের শাসন কেন্দ্র হিসাবে বেছে নিয়েছিল।^(১) মূলত সেনাবাহিনীর স্বাস্থ্য চিন্তাতেই এই অঞ্চলে এলোপ্যাথিক চিকিৎসা ব্যবস্থার সূত্রপাত ঘটে। কিন্তু গোটা ব্রিটিশ ঊগ ধরেই বাঁকুড়া জেলায় পাশ্চাত্য চিকিৎসা পদ্ধতির পাশাপাশি আয়ুর্বেদিক বা ভেষজ চিকিৎসা ব্যবস্থা একটি সমান্তরাল চিকিৎসা পদ্ধতি হিসেবেই বহমান ছিল। ব্রিটিশ সরকার কিন্তু সাম্রাজ্যবাদী স্বার্থে এই পদ্ধতিকে সম্পূর্ণ নস্যাৎ করে দিতেও পারেনি।

বাঁকুড়া জেলায় বহু প্রাচীনকাল থেকেই সাধারণ মানুষের মধ্যে আয়ুর্বেদ চিকিৎসা পদ্ধতি প্রচলন ছিল। প্রথম ইতিহাস খ্যাত আয়ুর্বেদিক চিকিৎসক ছিলেন শ্রীনিবাস আচার্যের পার্শ্বদ মল্ল রাজধানী বিষ্ণুপুর নিবাসী সাধক রামচন্দ্র কবিরাজ।^(২) জেলার বিভিন্ন স্থান থেকে বিশেষ করে বিষ্ণুপুরের মালিয়ারা ও বামিরা বালসি থেকে প্রায় তিনশোর বেশি আয়ুর্বেদ ও চিকিৎসা বিষয়ক পুথীর সন্ধান পাওয়া গেছে। দারকেশ্বর নদের তীরবর্তী কাকিল্যা, রামসাগর, ওন্দার নিকটবর্তী ছাবরা, পাছবাখরা, রামসাগর প্রভৃতি জায়গা থেকেও আয়ুর্বেদিক পুথি পাওয়া গেছে।^(৩) পুথি গুলির বিষয়বস্তু ছিল নাড়ী পরীক্ষা, নিদান অর্থাৎ মুমূর্ষ রোগীর মৃত্যুকাল নির্ণয়, পথ্যাপথ্য নির্ণয়, পরিভাষা, দ্রব্যগুণ, বৈদ্যজীবন, রসায়ন, মুষ্টিযোগ,- সর্বোপরি ভারত বিখ্যাত আয়ুর্বেদিক গ্রন্থের অনুবাদ -অনুলিপিও এখান থেকে পাওয়া গেছে।^(৪) ১৮৭০ এর দশকে এই জেলায় পুরুষ কবিরাজ ছিলেন ৮৬ জন ও মহিলা কবিরাজের সংখ্যা ছিল ১১ জন।^(৫) এর থেকে অনুমান করা যায় ঐ বাঁকুড়া জেলায় আয়ুর্বেদিক চিকিৎসক সমাজ সংখ্যায় ও সাধনায় তুচ্ছ ছিলেন না। এনাদের খ্যাতির বিস্তার ছিল দূর-দূরান্ত পর্যন্ত।

অষ্টাদশ শতাব্দীতে বিষ্ণুপুরের অন্যতম জনপ্রিয় কবিরাজ ছিলেন ঋষিকেশ কবিরাজ। তিনি মুষ্টিযোগ বিষয় একটি গ্রন্থ রচনা করেছিলেন। তার পসারও ছিল তৎকালীন ডাক্তারদের কাছে ঐথেষ্ট ঈর্ষণীয়। অপর কবিরাজ হলধর দাশগুপ্ত ১৮৬৪ সালে পথ্যাপথ্যের উপর একটি গ্রন্থ রচনা করেছিলেন। কথিত আছে তার কাছে এলোপ্যাথিক চিকিৎসকরাও হার মেনেছিলেন। গাছগাছড়া, সোনা-রুপা, পারদ ভস্ম ছিল চিকিৎসার মূল উপকরণ। বিষ্ণুপুরের পুরাকীর্তিভবনে রক্ষিত আয়ুর্বেদের উপর পুথি গুলি ঘাটাঘাটি করলে

কাবিরাজ নিযুক্ত করেছিলেন। ১৮০৭ সালে এখন জেলা কেন্দ্র বাঁকুড়ায় স্থানান্তরিত হয় তখনও কয়েদিদের চিকিৎসার জন্য একজন কবিরাজকেই নিযুক্ত করা হয়- রামচন্দ্র সেন।^(৭) পরবর্তীতে ১৮২১ সাল পর্যন্ত দেশীয় কবিরাজ রাই কয়েদিদের চিকিৎসা করতেন। ঊনবিংশ শতকের দ্বিতীয়ার্ধ থেকে বিংশ শতকের প্রথম পর্যায়ে বাঁকুড়ায় চিকিৎসারত কয়েকজন জনপ্রিয় কবিরাজ হলেন 'দাশগুপ্ত' পদবিধারী গোপাল কবিরাজ, গুপ্ত পদবিধারী পূর্ণ কবিরাজ, রাম ব্রহ্ম কবিরাজ, ছাতনার জীবন কবিরাজ, খাতরার মহিমার্গব সেনগুপ্ত, বিনয়ভূষণ সেনগুপ্ত।^(৮) বিনয় ভূষণ সেনগুপ্ত বাঁকুড়া খ্রিস্টান কলেজ থেকে ১৯২৪ সালে বি. এস .সি পরীক্ষায় উত্তীর্ণ হলে ১৯২৮ সালে মল্লভূম আয়ুর্বেদ মহামন্ডলের কাছ থেকে আয়ুর্বেদাচার্য উপাধি পান। ১৯৪১ সালে তিনি পশ্চিমবঙ্গীয় পণ্ডিত মহল থেকে 'সিদ্ধান্ত বাচস্পতি' উপাধি লাভ করেন। এছাড়া তিনি নিজে বাঁকুড়ায় 'নিত্যানন্দ ঔষধালয়' নামে একটি আয়ুর্বেদ ঔষুধের দোকান তৈরি করেছিলেন।^(৯)

১৮৭৬ সালে হান্টার বাঁকুড়া জেলায় কবিরাজদের ব্যবহৃত প্রায় ৬৯ টি ঔষধি গাছ-গাছড়ার নাম লিপিবদ্ধ করেন।^(১০) তিনি এই জেলার কবিরাজদের 'native medical practitioner' বা দেশজ চিকিৎসক বলে অভিহিত করেছেন। তার ধারণা ছিল কবিরাজরা পাশ্চাত্য তথা বিজ্ঞানভিত্তিক চিকিৎসা পদ্ধতি জানতেন না, চিকিৎসক হিসাবেও তাদের কোন দক্ষতা ছিল না। তার ধারণা ছিল কবিরাজদের চিকিৎসা পদ্ধতিতে ঐ পারদের ব্যবহার করা হতো তা অনেক ক্ষেত্রেই শোচনীয় পরিণতি ঘটাতো। কবিরাজরা অনেক ক্ষেত্রে একাধিক ড্রাগের সংমিশ্রণ ঘটাতো, উদাহরণ হিসাবে তিনি দেখিয়েছেন ঐ- গঙ্গাধর চূর্ণ তৈরিতে ব্যবহৃত হতো বেল, পানিফল, আদা, লবঙ্গ, ভাঙ, চিরতা প্রভৃতি। দুরারোগ্য পেটের অসুখে বিস্তবান রোগীদের ক্ষেত্রে সোনা, রুপা, তামা, প্রবাল, মুক্তা, লোহা, লোহিত আর্সেনিক দিয়ে তৈরি ঔষুধ ব্যবহার করা হতো। জ্বরে আচ্ছন্ন রোগীদের শরীরে বল পাওয়ার জন্য কোন পথ্য দেওয়া হতো না, প্রথম দিকে শুধুমাত্র মুড়ি খাইয়ে রাখা হতো, ঐ ফলে অনেক ক্ষেত্রেই দুর্বলতার কারণে অনেক রোগী মারা যেতেন।^(১১)

কেবলমাত্র হান্টার নয় ইউরোপিয়ানদের অনেকেই কবিরাজদের দক্ষতা জ্ঞান চিকিৎসা পদ্ধতির কঠোর সমালোচনা করেছেন। তাদের কাছে আয়ুর্বেদীও চিকিৎসা পদ্ধতির কোন বৈজ্ঞানিক ভিত্তি ছিল না। বাঁকুড়া জেলায় ব্রিটিশরা নিজস্ব স্বার্থ চরিতার্থ করতে পাশ্চাত্য চিকিৎসক ব্যবস্থা প্রবর্তনের সূত্রপাত ঘটায় 'ফৌজদারী জেলখানা হাসপাতাল' গঠনের মধ্য দিয়ে। ১৮৩৯ সালে সরকারি অনুদানে 'Bankura Charitable Dispensary' গড়ে ওঠে।^(১২) ১৮৬৫ সালে বাঁকুড়া সদরে সরকারি সাহায্যপ্রাপ্ত একটি দাতব্য চিকিৎসালয় গড়ে ওঠে।^(১৩) ১৮৬৬ সালে এর সাথে জনতার দানও গৃহীত হয়। টিকাকরণের ক্ষেত্রে বাঁকুড়া পৌরসভা একটি কৌশল অবলম্বন করেছিল। ১৮৮৩ সালে পৌরসভার উপ পৌরপ্রধান ধর্মীয় স্থানে বা তার কাছে টিকাদান কেন্দ্রগুলি গড়ে তুলতে উদ্যোগী হলেন। ঐ ফলে চমকপ্রদ সাফল্য পাওয়া যায়।^(১৪) ১৮৮৫ সালে কাউন্টেন্টস অফ ডাফরিন ভারতীয় মহিলাদের কাছে সুচিকিৎসা পৌঁছে দেওয়ার জন্য তৈরি করেন 'National Association for Supplying Medical Aid by Women to the Women of India'. এই তহবিলের সহায়তায় ১৮৯৫ সালে বাঁকুড়ায় গড়ে ওঠে 'লেডি ড্যাফরিন জেনানা হাসপাতাল'।^(১৫) মহিলা চিকিৎসক হেমাঙ্গিনী কুলভি এই হাসপাতালের প্রথম চিকিৎসক হিসাবে নিযুক্ত হন, তিনিই ছিলেন উপনিবেশিক আমলে বাঁকুড়ায় নিযুক্ত প্রথম ও শেষ মহিলা চিকিৎসক। এর দ্বারা মহিলাদের স্বাস্থ্য বিষয় পাশ্চাত্য চিকিৎসা ব্যবস্থার অবদান সহজেই অনুমেয়। ১৯০৮ সালে বাঁকুড়া জেলায় মাত্র ৯টি

মালিয়ারা ১টি করে। ১৯২৫ সালে সরকার পৌরসভা ও জেলা বোর্ডের পৃষ্ঠপোষকতায় বাঁকুড়ায় মোট ১২টি দাতব্য চিকিৎসালয় গড়ে তোলে। ১৯২৯ সালে মতান্তরে ১৯৩১ সালে বাঁকুড়া দাতব্য চিকিৎসালয় বাঁকুড়া সদর হাসপাতাল নামে পরিচিত হয়।^(১৬) ১৮৮৭ সালে তৎকালীন সিভিল সার্জন ডক্টর রসিকলাল মিত্রর প্রস্তাব অনুযায়ী বাঁকুড়া বঙ্গ বিদ্যালয় এর পুরানো ভবন সরাই খানাকে কুষ্ঠ হাসপাতাল স্থাপনের জন্য পুরসভার ডিসপেন্সারি কমিটির এজিয়ারে হস্তান্তরিত করার জন্য জেলা প্রশাসনিক কর্তৃপক্ষকে অনুরোধ জানানো হয়।^(১৭) কিন্তু খুব সম্ভবত বাঁকুড়ার তৎকালীন জেলা প্রশাসন বাঁকুড়া পৌরসভার এই অনুরোধে ইতিবাচক কোন সাড়া দেয়নি। এ থেকে অনুমান করা যায় উপনিবেশিক সরকারের বাঁকুড়ায় পাশ্চাত্য চিকিৎসক ব্যবস্থা প্রণয়নে কতটা সদিচ্ছা ছিল।

মূলত পাশ্চাত্য চিকিৎসা ব্যবস্থা প্রবর্তনের পিছনে ছিল কয়েদিদের স্বাস্থ্য রক্ষার জন্য সরকারি বাধ্যবাধকতা, নীল চাষে কর্মরত চাষী, শ্রমিক, প্রশাসনিক ও সামরিক প্রয়োজনে অবস্থানকারী ইংরেজ ও এদেশীয় সিপাহীদের চিকিৎসার প্রয়োজন। এরমধ্যে সাধারণ জনস্বাস্থ্য ছিল উপেক্ষিতই। মূলত জাতি বৈষম্যকে ভিত্তি করে উপনিবেশে গড়ে ওঠে সাম্রাজ্যবাদী জনস্বাস্থ্য। ব্রিটিশরা বিশ্বাস করত যে তাদের জীবন ভারতীয়দের জীবনের থেকে অনেক বেশি মূল্যবান। তাই যে সকল অঞ্চলে ইংরেজরা প্রভাব বিস্তার করেছিল সেখানকার স্বাস্থ্যবিধির উপরে কড়া নজর দেওয়া হতো। বাংলায় ব্রিটিশ হাসপাতাল স্থাপনের প্রয়োজন ছিল মূলত সেনাদের পুষ্টি ক্ষত থেকে সারিয়ে তোলা, ঠাতে তারা সবল দেহে পুনরায় পুষ্টি অংশ নিতে পারে। ব্রিটিশদের প্রয়োজন ছিল শ্রমিক বাহিনী, যেমন- খনি শ্রমিক, কলকারখানার শ্রমিক, বাগিচা শ্রমিকদের সুস্থ রেখে উৎপাদনশীলতা বাড়িয়ে তোলা। চটকল গুলির স্বাস্থ্য নীতির মূল উদ্দেশ্য ছিল সংক্রামক ব্যাধি নিয়ন্ত্রণ করা, ঠাতে নীরোগ শ্রমিক পাওয়া যায়।^(১৮) ১৮৮০ সালের আগে এদেশে পাশ্চাত্য ওষুধ ও চিকিৎসা পদ্ধতির অনুপ্রবেশ ঘটলেও মূলত তা ছিল ইউরোপীয় সেনা ও সিভিলিয়ানদের জন্য। শহরাঞ্চলে সেখান থেকে সাধারণ ভারতীয়দের জন্য সেই সকল ওষুধ খুব কম সংখ্যক ব্যবহৃত হতো। আর বাঁকুড়ার মত প্রত্যন্ত অঞ্চলে এই সকল এলোপ্যাথিক ওষুধ ব্যবহার করা ছিল বিলাসিতার নামান্তর। স্বাভাবিক নিয়মে বাঁকুড়ার মত প্রত্যন্ত অঞ্চলে দেশীয় কবিরাজ ও দেশীয় ওষুধই ছিল সাধারণ মানুষের কাছে সহজপাচ্য। জনস্বাস্থ্যের বিষয় রাষ্ট্রশক্তি নিজের বাঁচার তাগিদে এতটুকু করা প্রয়োজন মূলত ঠিক ততটাই করা তারা ঠিক করেছিল। সাধারণ মানুষের জনস্বাস্থ্যের নজর দেয়ার পিছনে ব্রিটিশদের যে প্রয়োজন কাজ করেছিল তা ছিল মূলত 'খাজনা' লাভ করা।

ঐতিহাসিক মহলের এক অংশ মনে করেন যে ভারতে ব্রিটিশরা যে চিকিৎসা ব্যবস্থা স্থাপন করেছিল তার পুরোটাই ব্রিটিশদের জন্য হয়নি, ভারতীয়রাও এর ফলে কিছুটা উপকৃত হয়েছিল। বলা যায় এটা ব্রিটিশদের চুইয়ে পড়া অনুগ্রহ নীতির একটি অংশ মাত্র। ঠাই হোক না কেন এর ফলে বাঁকুড়াতেও ব্যক্তিগত ও বেসরকারি উদ্যোগে বেশ কিছু এলোপ্যাথি চিকিৎসা প্রতিষ্ঠান গড়ে ওঠে। ১৮৮৭ সালে তৎকালীন সিভিল সার্জন ডক্টর রসিক লাল মিত্রর প্রস্তাব অনুযায়ী বাঁকুড়া বঙ্গ বিদ্যালয় পুরানো ভবন সরাইখানাকে কুষ্টি হাসপাতাল স্থাপনের জন্য পুরসভার ডিসপেন্সারি কমিটির কাছে অনুরোধ জানানো হয়।^(১৯) ১৯২১ সালে তৎকালীন জেলাশাসক সত্যেন্দ্রনাথ রায়ের উদ্যোগে স্থাপিত হয় 'কুষ্ঠ রোগ নিবারণ সমিতি'। B.E.L.R.A (British Emperior Leprosy Relief Association)- র ইন্ডিয়ান কাউন্সিলের বাংলা প্রাদেশিক শাখা ১৯৩৬ সালে বাঁকুড়ায় একটি 'leprosy Investigation Centre' প্রতিষ্ঠা করে। ১৯৩৭ সালে বাঁকুড়ার লোকপু্রে একটি লেপ্রসি ক্লিনিক গড়ে তোলার জন্য পৌরসভা কর্তৃপক্ষের তরফে একটি প্রস্তাব

বাঁকুড়া সম্মিলনী মেডিকেল স্কুল এবং হাসপাতাল। বাঁকুড়া মেডিকেল স্কুল থেকে পাশ করে বিংশ শতাব্দীর প্রথমার্ধের মধ্যেই প্রায় ১০০০ চিকিৎসক এই জেলার এবং পার্শ্ববর্তী জেলাগুলিতে ও ধানবাদের কয়লা খনি অঞ্চলে এবং গ্রামের প্রত্যন্ত অঞ্চলের সাধারণ মানুষের সেবায় পাশ্চাত্য চিকিৎসার সুবিধা পৌঁছে দিতে সক্ষম হয়েছিল।

সামগ্রিক আলোচনার ভিত্তিতে দেখা যায় যে উপনিবেশিক বাঁকুড়ায় জনগণের রোগ ব্যাধিতে পাশ্চাত্য চিকিৎসার সুযোগ দিতে ব্রিটিশরা ততটা উদ্যোগী বা আন্তরিক ছিল না, বরং আয়ুর্বেদ চর্চা অনেক বেশি সহজপাচ্য ছিল সাধারণ মানুষের মধ্যে। এছাড়া পাশ্চাত্য চিকিৎসা চর্চা ছিল সাধারণ খেটে খাওয়া মানুষের কাছে বাইরে থেকে আসা একেবারে নতুন এক চিকিৎসা পদ্ধতি যা গ্রহণ করতে সাধারণ মানুষ বেশ খানিকটা ভয় পেয়েছিল। তাছাড়া দেখা যায় যে সরকারও সেইভাবে বাঁকুড়ার প্রত্যন্ত অঞ্চলে তাদের নিজস্ব চিকিৎসা ব্যবস্থা পরিকাঠামো সেইভাবে গড়ে তুলতে পারেনি, সেখানে শিক্ষিত চিকিৎসকের প্রাথমিক অভাব ছিল। অন্যদিকে কবিরাজদের চিকিৎসা প্রেম অনেক কম খরচে হত, তেমনি কবিরাজরা নিজেরাই দেশীয় গাছ-গাছরা থেকে ঔষুধ তৈরি করে রোগীদের সেবা করত, তাদের খবর নিত, প্রেম পাশের বাড়ির লোক করে থাকে। সর্বোপরি ছিল দারিদ্রতা, এই দারিদ্র্যের কারণেই অনেক সময় এদেশের রোগীরা ব্যয়বহুল ইউরোপীয় চিকিৎসা ব্যবস্থার পরিবর্তে কবিরাজদের শরণাপন্ন হতেন। এক্ষেত্রে অনেক সময় তারা হয় ফীজ নিতেন না, নতুবা ১ থেকে ২ আনা নিতেন। তাই সাম্রাজ্যবাদী স্বার্থে ব্রিটিশ সরকারের ইচ্ছা থাকলেও এই চিকিৎসা পদ্ধতিকে সম্পূর্ণ উৎখাত তারা করতে পারেনি। কেননা তাদের মনে একটা ভয় কাজ করছিল -জন-বিক্ষোভ বা জন অসন্তোষের।

সুতরাং শেষে তাই একথাই বলা যায় যে উপনিবেশিক বাঁকুড়ায় প্রথমদিকে সাম্রাজ্যবাদী ব্রিটিশ সরকার নিজ স্বার্থ চরিতার্থ করতে হাসপাতাল, ডিসপেনসারি, মেডিকেল স্কুল -কলেজ ইত্যাদি প্রতিষ্ঠা করে ভারতীয়দের শরীরকে নিয়ন্ত্রণ এবং তার উপর আধিপত্য বিস্তার করে, এর মাধ্যমে সোসাইটি দখলে রাখতে চেয়েছিল যা তাদের সাম্রাজ্যবাদ প্রসারে সহায়ক হত। কিন্তু বাঁকুড়ার মতো প্রত্যন্ত অঞ্চলে ব্রিটিশদের এই ইচ্ছা সফল হতে প্রধান অন্তরায় হয়ে দাঁড়িয়েছিল জনপ্রিয় আয়ুর্বেদ চর্চা। ফলে, ব্রিটিশরা খুব সহজে তাদের সাম্রাজ্যবাদী স্বার্থ চরিতার্থ করতে অক্ষম হয়েছিল।

তথ্যসূত্র

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THE SIGNIFICANCE OF HYDRO POLITICS IN SOUTH ASIA: THE GANGA-BRAHMAPUTRA-MEGHNA (GBM) BASIN

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Abstract:

With the establishment of the modern state system and the introduction of the conception of sovereignty, water bodies like rivers, lakes, and, aquifers connected to the countries also came within its purview. A lot of diplomatic initiatives and proceedings have taken place, over the years, regarding various concerns and conflicts over the sharing and distribution of water resources from shared or transboundary water bodies. Hydro diplomacy, different from water politics, as a scholarly topic, is relatively new in global politics.

With the increasing ecological challenges and their repercussions on the availability of fresh water, water-related disputes among co-riparian countries are not only increasing in number but also having serious impacts on bilateral and multilateral relations. The record of wars fought over water is close to none and international conventions and instruments exist that deal with water diplomacy. However, for the most part bilateral, and multilateral relations determine the ability of countries involved to resolve such conflicts. Another factor that has added to the existing complications, is the need for continuous industrialization and development.

The sub-region of South Asia is at present reeling under the trials of a booming population, a drastic increase in the gap between the rich and poor, urbanization, food, and water insecurity and so on which has added to the conflicts surrounding transboundary water sharing and distribution. The Ganga-Brahmaputra-Meghna Basin is one of the most populated regions in the world. For India, navigating the politics of water distribution, information sharing, and establishing strong institutional and legal frameworks in the GBM Basin can have major ramifications for its bilateral relations with its neighbors. It will be attempted here to

Introduction:

Water as a resource has multiple connotations. Since water is essential for the survival of all life on earth, it has no alternative. From this basic purpose, water has become associated with a plethora of implications that range from social to economic to political and environmental. Water is required for food production as well as non-conventional energy generation. It has social implications as well since water is a significant resource for many cultures, particularly based on its geographical location. Politically, the sharing of water and water resources is a vital part of inter-state diplomacy. Water has strong scientific overtones as well since it was and continues to be a vital part of the industrialization process as well as modern agricultural practices. Indeed, even though water as a resource is such an indispensable part of intra and inter-state diplomacy, it is quite surprising that wars have not been fought over water sharing in modern political history. On the contrary more cooperative and collaborative efforts on water-sharing political practices can be counted than on most other areas in terms of bilateral/multilateral initiatives. At the same time, just the formation of any treaty or venture on inter-state water sharing does not equal successful diplomacy. The distance between treaty formation and execution of resolutions is filled with hindrances. It is this angle that the present article seeks to explore in terms of inter-state water-sharing practices in South Asia.

Inter-state water sharing and related diplomatic practices are concerned with freshwater resources for the most part. Freshwater is only one of the many parts of hydro diplomacy, just as states are one of the many stakeholders of the same process. It is this aspect that is explored in the present article. Freshwater is a type of non-renewable resource. Due to the vagaries of global warming and climate change, it has depleted largely to the point that its exhaustion is now directly impacting communities around the world. With the rapidly increasing population in



certain sections of the world, the implications of the scarcity of freshwater availability is becoming more pronounced, as countries grapple to protect their economic and its citizen's interests. The more and more frequent occurrence of natural calamities like floods and droughts has further exacerbated the situation. The sharing of water is a very important part of bilateral diplomacy. This is especially true when one refers to the geographical region of South Asia. In fact, during the Partition of India and Pakistan, the sharing of water of the Indus River was as important an issue as that of the status of Jammu and Kashmir. Today, when the subcontinent is facing a lack of freshwater resources due to the very real implications of climate change, water diplomacy has become a vital concern.

Making Sense of Hydro Diplomacy in South Asia:

Hydro diplomacy is not only a relatively newer term but also an emerging area of bilateral diplomacy. For the most part, it refers to the management of and governance over shared water resources. Here the term governance is used because the hydro diplomacy of transboundary water resources requires the involvement of effective management, transparent communication, accountability, and responsibility. Freshwater resources are just one aspect of the entire gamut of hydro diplomacy and typically the number of stakeholders in the process ranges from individual communities to private organizations to countries in general. For this article, the focus is oriented toward inter-state freshwater resources and how the co-riparian countries of South Asia (stakeholders) are impacted by their management and distribution. The article uses the terms hydro diplomacy, inter-state freshwater diplomacy, and co-riparian water diplomacy interchangeably.

India has forged its fair share of treaties with its South Asian neighboring countries over the decades. However, these successful pieces of legislation have not ruled out conflicts over water sharing, ill management of resources, or hindrances to bilateral cooperation when it comes to hydro diplomacy. The Indus, Ganga, and Brahmaputra are the largest river basins in this region and they are transboundary in geographical nature. While treaties and agreements do exist for water sharing and management among co-riparian countries, any real regional collaboration on water sharing and resource management has struggled to make progress (Vishwanath, 2018).



This can be attributed to several factors. Firstly, water sharing is not just limited to resource management, but due to the conflictual nature of border issues in the subcontinent, it has been viewed in tune with national security. This has created rigid approaches from co-riparian countries and does not offer a healthy environment for cooperation to take place. Secondly, the pressures of economic development, urbanization, and industrialization have led most of the countries of South Asia to place water management on the back burner of important concerns. Thirdly, political rivalry among countries has prevented them from resorting to truly cooperative relations in terms of water resource management practices or setting up meaningful water-management structures. Asymmetry in power relations, and its perceptions, have played a significant role in the failure of the countries of the region to cooperate (Hanasz, 2014). Although the countries of South Asia have not waged war against each other over challenges and conflicts over water sharing, nevertheless it is a significant matter crucial to the national development and security of individual countries in the region. All these factors have led to the lack of multilateral cooperation in water sharing and resource management in the area. This article will view hydro diplomacy, its challenges, and opportunities, from the Indian point of view with particular reference to the Ganga-Brahmaputra-Meghna Basin.

The Politics of Hydro Diplomacy in South Asia: The Ganga-Brahmaputra Meghna Basin:

Water management in South Asia for the longest time has been equated with economic benefit. A direct consequence of this thought process has been the building of several dams and barrages along rivers and river bodies. Indeed, according to one statistic, South Asia as a region has the largest number of dams in the world. These actions are further informed by the fact that the subcontinent is a fast-developing one. Boost in production and industrialization capabilities, along with a rapid increase in population, has thrown up environmental challenges that the co-riparian countries face, which have become pronounced since the turn of the century. According to Brahma Chellaney, South Asia is the only region apart from North America where inter-state water management is mostly carried out via bilateral treaties (Chellaney, 2014). As will be explored further in the article, bilateralism has not been able to rectify the situation always, as pre-existing and recurring political, economic, and social conflicts in the subcontinent have complicated the current predicament.



The study of hydro diplomacy in the subcontinent of South Asia is an emerging area of study because of the political, economic, and environmental dynamics of the region. The region has a larger share of the world population as compared to the available freshwater resources here. The need for freshwater resources for the maintenance of stability has already been referred to above. The region being a developing one, freshwater is utilized for agricultural and industrial production to a very significant part. On the other hand, the South Asian subcontinent is politically one of the most disintegrated in the world. It has faced numerous catastrophes, natural and man-made, which has made the region a volatile one. The pervasive presence of extra-regional powers in the area has further complicated the situation. Freshwater resources from the rivers are not only important points of inter-state diplomacy, but they are also lifelines of communities living along them.

The Ganga-Brahmaputra-Meghna (GBM) basin, is one of the largest basins in the world. It is also a heavily populated region and a total of four countries are tied together by it (excluding China). In terms of hydro diplomacy, the GBM basin offers all kinds of challenges that countries can face when it comes to water management and distribution in river basins. The riparian countries of the GBM basin (namely India, Nepal, Bhutan, and Bangladesh) are engaged in varying degrees of cooperation, conflict, water management, and sharing. Their geographical positions, making them upper and lower riparian countries, are also other factors that weigh heavily in water sharing and management diplomacy.

A significant by-product of inter-state diplomacy on water sharing and management is treaty/accord. An interesting take on this aspect is that even in multilateral river basins, it is bilateral diplomatic initiatives that are more prevalent rather than multilateral ones. This has been referred to as 'fragmented diplomacy'. While multilateral diplomatic instruments on shared river basins are more likely to be cooperative and collaborative in nature, bilateral treaties/accords can incline more toward hegemonic and unequal attitudes (Zawahri & Mitchell, 2021). Conversely, concerning treaties between India and co-riparian countries on the GBM basin, the treaties/accords are mainly formed on rivers of the basin shared bilaterally. Indian foreign policy diplomacy highly favors bilateral solutions, especially regarding its South Asian neighbors. Hence, some successful co-riparian diplomatic legislations have been forged in the



sub-continent. While this does bring out the probabilities of high-handedness due to asymmetry of power, nevertheless the potentialities of successful co-riparian treaties cannot be denied.

The existence of treaties on water sharing and management of river freshwater itself underlines the existence of some or more degrees of complications. The successful creation of a water-sharing treaty itself is not a sign of political victory. While it may point toward a point of cooperation or collaboration, the actual fallouts of a water-sharing treaty may not always be effective in nature. Hence, even though hydro diplomacy in South Asia is essentially conducted on a bilateral basis, this approach has not succeeded in bringing about a comprehensive resolution to older problems of water access and distribution and newer conflicts surrounding the fast depletion of resources due to environmental and demographic challenges.

The dichotomy of the GBM basin has been stressed enough in the present article. While the basin itself is plentiful in terms of resources (not just water), it is also home to one of the poorest populations in the world. The resulting discrepancy in demand and supply has created the need for proper freshwater management and distribution, which in turn has led to the rise of insecurity and apprehensions among the co-riparian countries of the basin. This rise in tension and mistrust can be witnessed in the consequent legal arrangements (accords, initiatives, etc.). Moreover, the nature of challenges that the co-riparian countries of the GBM basin face, are interrelated. It will be outside the scope of this article to review the difficulties that all the co-riparian countries of the basin face individually. Hence, it will be attempted to analyze the trials of freshwater sharing and management from the Indian point of view. These can be categorized into the following factors:

- **Requirements of the co-riparian countries** –Conflict arises mainly when interests are multiple and competing in nature. While politics itself is complicated, the roots of disagreement are quite easy to comprehend. The availability of water is a crucial concern of hydro diplomacy. Since the region along the GBM basin faces increased water supply in certain months (monsoons) and a lack of it in other months, the lack of a proper water storage system upstream and availability of water for irrigation are some nagging problems for the GBM co-riparian countries, especially downstream countries like India and Bangladesh. Water storage in the upper riparian countries (Nepal and Bhutan) becomes extremely crucial for the downstream countries (India and Bangladesh) in



months when freshwater availability is scarce here. Water is required for consumption as well as production via irrigation and industrial usage. Hydropower generation is another source that offers alternatives to energy production and cNepal and Bhutan are excellent sources of hydropower generation and utilization. India can utilize this opportunity to its benefit, by exploiting the power generation potentialities in these developing countries (Hanasz, 2017). India has started exploring this aspect since the 1960s. The Trisuli Hydropower Project, the Devighat Project, the Gandak Hydel Scheme, and the Pokhara Hydroelectricity Project are some examples of India-Nepal cooperative ventures (India-Nepal Economic Cooperation, n.d.). India has also assisted Nepal in building several dams and barrages, especially in the recent past, as part of its Development Partnership Administration policy. However, bilateral political problems and interference by extra-regional powers have often interrupted and even put an end to these efforts, to the detriment of both countries.

- **The presence of mistrust and rivalries** – Existing bilateral relations often become a hindrance to successful negotiation in regional diplomacy. India has been regarded as the regional hegemon in South Asia. Being much bigger, both geographically and economically, India has, for the most part, been viewed as domineering with a big-brother attitude toward its neighboring countries. India has reformed and renewed its foreign policy stance toward South Asia, like the Gujral Doctrine, Neighborhood First Policy, and Development Partnership Administration policy, to come across as a developmental partner and regional leader. However, a history of intervention and even high-handedness has made it difficult for the latter to completely reform its image. For example, concerning inter-state water management and sharing mechanisms with Nepal, India has been accused of being unfair and catering to its own needs, rather than resorting for equal gains. In Nepal, this feeling surrounds the Mahakali Agreement of 1996, the controversy surrounding the Tanakpur Barrage, among others. According to Paula Hanasz, India is unequivocally the hydro hegemon of the South Asian subcontinent. Nevertheless, it has been able to conduct transboundary water sharing and management in a way that is preceded by consent rather than coercion (Hanasz, 2014). The construction of



developmental works has also been viewed with suspicion in South Asia by lower riparian countries (Salman & Uprety, 2018). On the one hand, while lower riparian countries should be consulted if the creation of any structure in one country impacts them, however, due to the prevalence of anxiety among countries, even innocent developmental works might come across as an act of sabotage against lower riparian countries. India's use of bilateralism to work through hydro diplomacy with its co-riparian countries has been a blessing in disguise. This is because multiple countries share the GBM basin, negotiations get stalled due to a lack of consensus among them, and here bilateral arrangements have presented themselves as a more viable alternative.

- **Non-acknowledgment of state concerns**– States in India are important stakeholders when it comes to transboundary water sharing and management practices. In the case of the GBM basin, large and important states like West Bengal and Uttar Pradesh lie alongside it. Both these states are the most populous in the country, as communities depend heavily on these rivers for their livelihood. However, instead of moving toward poverty alleviation, India's practices have often been accused of triggering poverty in these areas. Moreover, according to domestic law in India, any international treaty on transboundary river water management requires the consent of the Indian states that share its border along the respective basin. The Teesta River Agreement dispute is a case in point. In 2011, when the Indian government was trying to finalize the Teesta River Agreement with Bangladesh, the West Bengal government posed rigid opposition to it, because West Bengal would suffer due to less water supply if the terms of the Agreement went through. The Treaty was ultimately not signed and this instance continues to be one of the biggest failures of India-Bangladesh diplomacy (Banerji, 2021). There are also instances where less than good equations between Indian states and neighboring countries have posed challenges to negotiations for mutual interests. For example, Arunachal Pradesh's intention of building several dams to exploit its hydropower potential will directly impact its downstream neighboring state Assam. Assam can strengthen its case by engaging Bangladesh on the same issue as the latter will also face the same problems. However, due to differing stances on the issue of migrants, Assam and Bangladesh have



failed to come together (Hanasz, 2015). Thus, consideration of the stances of the state governments is another factor that India needs to consider while conducting hydro-diplomatic negotiations with other countries.

- **Lack of transparency in data sharing** – A major problem that India and its neighboring countries in South Asia encounter regarding hydro diplomacy is the environment of secrecy that surrounds data sharing in the subcontinent, about water sharing and management. This is related to the existence of mistrust and anxiety among neighbors in general. However, when it comes to water management and prediction practices, the prevalence of transparency in sharing relevant data among countries is of the utmost requirement. India's National Water Policy, 2012, points towards the need for disclosing more data regarding transboundary rivers, at the same time it accounts for very little consideration and space for inter-state water management and practices in the same policy (India National Water Policy, 2012). Indeed, India has been criticized in the past for not giving ample information about transboundary hydropower projects, and for the lack of communication between governments on the issue (Singh, 2008). Additionally, there is also a lack of exclusive institutional mechanisms for any type of grievance redressal or conflict management, concerning transboundary water management in South Asia (Barua, 2018). These practices display a lack of interest in transboundary water management practices with co-riparian countries and hence an even lesser interest in solving problems related to hydro politics in the region.
- **Knowledge gap and bad engineering practices**– Lastly, another aspect that is a big barrier to effective transboundary water management and practices is the presence of knowledge gaps in water governance. This is a significant point because the absence of proper understanding and reading of not only the political and economic situation of co-riparian countries but also the environmental and social costs involved in river water diplomacy leads to the formation of inefficient and even harmful practices. Restrictions imposed on access to hydrological data further create a lack of scientific research and study of the river basins in the South Asian subcontinent (Bandhopadhyay, 2007). This



lack of comprehensive knowledge of hydrology has further limited the efficient administration of transboundary water resources. South Asia is home to the largest number of dams in the world. Dam building has been referred to as part of traditional inter-state water management practices of the colonial era, which India has continued, and quite aggressively, well after independence. Thus dam building and irrigation have been the main concerns, for boosting production, while the social and environmental costs were largely unaccounted for. This is also referred to as ‘reductionist hydrology’ (Bandhopadhyay & Ghosh, 2009).

These are some of the challenges to transboundary freshwater management and distribution in South Asia, particularly from the Indian point of view. They are in no way exhaustive. Several points of view exist when it comes to hydro diplomacy, as there are several stakeholders involved in the process. Nevertheless, these are some valid, particularly political concerns when it comes to challenges to hydro diplomacy in the subcontinent.

The ecological strain in the Ganga-Brahmaputra-Meghna basin due to extreme population growth and increased economic activity in the region has popularised the study of hydro diplomacy in recent times. While the bilateral political mechanisms have been the norm of transboundary water diplomacy, they have not necessarily solved most of the existing and recurring conflicts in water management practices. The lack of comprehensive strategies and the prevalence of traditional engineering practices for river water management has led to disaffection among co-riparian countries and a crucial knowledge gap that does not take into account social and environmental costs. Hence what is required is comprehensive basin-wide cooperation, with adequate research, transparency in data sharing, and more innovative and well-informed engineering practices that could bring about positive changes in the current predicament.

Conclusion

While bilateral mechanism has been the norm in transboundary river water management in South Asia, the effectiveness of such an approach can be called into question. India’s river water treaties with Nepal, Bhutan, and Bangladesh can be regarded as successful pieces of diplomacy, yet several misunderstandings and complexities have surrounded these treaties.



Bangladesh has a long-standing dispute with India about the Farakka Barrage that the latter has built and which the former complains that it inhibits the flow of water to its territory. Although the Ganges Treaty of 1996 was signed between the two countries, till today there has been no resolution on the distribution of water in the dry season and the sharing of water concerning other rivers that are part of the system. The India-Nepal Kosi Treaty and the India-Nepal Gandak Treaty, also created disaffection in the latter country, leading to the perception in domestic circles that Nepal is losing out on water resources to India. Comparatively, the Mahakali Treaty of 1996 is a better piece of diplomacy with the provision of dispute settlement mechanisms, not taking into account its actual effectiveness (Uprety & Salman, 2011).

The South Asia Water Initiative (SAWI), which began in the second part of the 2000 decade, was a multilateral initiative backed by the United Kingdom, Norway, and Australia under the World Bank umbrella to enhance regional collaborative efforts toward the management of the Himalayan River system (The World Bank. n.d.). However, the impact of this multilateral project did not result in much positive outcomes in the subcontinent. Despite of foreign intervention and support, the lengthy and complex problems of transboundary water management in South Asia could be properly dealt with by a weak system of foreign aid and short cycles of funding. The World Bank report on the Ganges Strategic Basin Assessment did provide innovative suggestions on water and resource sharing in the subcontinent and cooperative governance. However this was mostly rejected by the South Asian co-riparian countries, who viewed their problems to run much deeper (Hanasz, 2017).

Thus, to bring about real changes and improvement in transboundary water sharing and management practices in South Asia, two vital areas need to be worked upon. Firstly, to bring about transparency not only in data sharing but in transboundary water practices in general and hence ameliorate the environment of mistrust and doubt among the neighbors. Once the concern for overall development is believed to be genuine enough, improvements and effectiveness in diplomatic outcomes can be perceived. Secondly, there is a need for widening the knowledge base of transboundary water management and inter-disciplinary studies regarding the same, so that all aspects and stakeholders can be brought under the same cover. This will help in making better assessments and diplomatic initiatives will be more well-informed rather than the



reductionist engineering practices prevalent in inter-state water management and distribution practices.

In the present age the need of the hour, particularly for a region like South Asia, is collaborative efforts based on transparency and goodwill, while continued territorial nationalism can only lead to further detriment to the situation at hand.

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THE ROLE OF FEMINIST DISCOURSE IN THE CONTEMPORARY DEVELOPMENT OF INTERNATIONAL POLITICS: A CRITICAL EVALUATION

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Abstract:

Women's involvement in international relations at large, international peace and women as peace keepers are now a prominent research area and topic of discussions. Moreover, Feminist Perspective has brought a new light to many subject areas that were traditionally dealt with and appreciated without any women to play any role therein. Moreover, feminist perspectives offer a historical challenge to rethink about human relationships by touching all aspects of human life. Furthermore, we could find that the focus on women role and women perspective has a transformative impact on social sciences and it has challenged the traditional discourse in so many different ways. This article deals with the increasing role of women in world politics and a critical evaluation of it. Moreover, in this connection the article deals with the evolution of women centric laws and increasing participation of women.

Key Words: international relations, women, law, international peace.

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Introduction:

Women's involvement in international relations at large, international peace and women as peace keepers are now a prominent research area and topic of discussions. Moreover, Feminist Perspective has brought a new light to many subject areas that were traditionally dealt with and appreciated without any women to play any role therein. Moreover, feminist perspectives offer a historical challenge to rethink about human relationships by touching all aspects of human life. Furthermore, we could find that the focus on women role and women perspective has a transformative impact on social sciences and it has challenged the traditional discourse in so many different ways. This article deals with the increasing role of women in world politics and a critical evaluation of it. Moreover, in this connection the article deals with the evolution of



women centric laws and increasing participation of women in Entrepreneurship in contemporary India and the impact of political scenario.

1. Research Methodology:

The Research Methodology used here is both Qualitative and Quantitative. Since, Quantitative research is typically used to describe a topic statistically, generalize, make causal inferences, or test a theory, here, in my research I have collected data to derive inferences about the magnanimity of the situation. Again, Qualitative methods are also applied. Moreover, Qualitative inquiry is typically used when there is a need to explore a phenomenon, understand individuals' experiences, or develop a theory. Furthermore, I have tried to develop my own interpretations and understanding based on the gathered data.

2. Changing role of women in Politics:

Now a days we have many courses on women studies which have a very strong focus both at the levels of nation and international society on the role of women. The U.N resolution 1325 says that women must participate and must be encouraged to participate in international decision-making processes and international arena to steer our course to peace and sustainable development. In short women studies is an emphasis on gender analysis and it has changed the nature of studies in social science and humanities in so many different ways. Hence, today when we discuss about environment it is always about women and environment, what traditionally women are seen to be acting on the question of environment and also there is a realization that women are affected more severely when it comes to the question of ecology and environment. We find that illustrious figures like Vandana Shiva and others have inter-related the questions of ecology, war, peace and rights in their writings. Hence, we could find that a new linkage, a new methodology is introduced to us through the emphasis on women. Similarly, the focus on women in the field of International Relations is a game changing phenomenon in the studies of peace and conflict resolutions.

Traditionally, women issues, women agenda and women politics has been conspicuously absent in the study of International Relations for a long time. However, in the late 80's questions were raised regarding the presence of women in international politics. It was a prominent



question that whether it is taken that the relation between nations, international politics of the day, the question of war, peace, mediations and negotiations are exclusively male domain or women do have a role to play there. It was not long back that women were never imagined that they could play a significant role in conflict resolutions. However, a distinctive change in women's scholarship and approach in conflict resolution and international relations was noticed from the late 1980's and it continued in 90's, 20's and in the recent phenomenon. Moreover, now we could find several examples of women scholarships and approach of women in international relations and peace processes for example the role of Naga mothers in India.

3. Traditional Discourse of Women in Politics:

However, the question arises that why women were hidden in international relations for so long. Moreover, people often argue that gender and international relations are two mutually exclusive domains. Furthermore, the argument is that the political process at the international level is gender neutral. Previously, International relations were described as international politics which were seen simply as a struggle for power between the countries. Moreover, we could discover that in the writings of Kautilya, in the discourses of Mahabharata and even political philosophers like Machiavelli have talked about in a similar vein that international relations are simply a struggle for power. The idea was conceptualized very simply and crudely that human nature was afflicted by two characteristics: i) selfishness and ii) the lust for power. Moreover, the argument was that this lust for power is innate in human nature. Furthermore, it is noticed that all these developments were the products of post-cold war period when the world was already in the grip of international rivalry between the Soviet Union and the United States. Now, the point that we must highlight here is that the methodology of understanding the role of women agencies is deeply embedded in the way these disciplines, these discourses were embedded in the power structure of the day.

Moreover, these ideologies were all Cold War products which denied any women role in international relations. Furthermore, it is believed that international relation is state centric. This



state centric, masculine power centric approach to understand the international behavior has been profoundly dominating even till now. However, the only change is that now we find an alternative vision given by Feminist scholars and other scholars and activists who argue that without giving emphasis on the question of how women look at a situation it becomes very difficult to understand the political reality. Thus, the foundational reason why women were not considered centrally in the debate is that power centric masculine approach did not have much patience and continence for human rights. However, this stance has been decried by many scholars particularly from the western hemisphere like Nancy Hartsock, Hannah Allen and others. They particularly attacked the book *Politics among Nations: The struggle for Power and Peace (1948)* by Hans.J. Morgenthau in which he argued that all nations and all countries are for lust of power and control of men over men. The two consecutive World Wars are an outcome of such kind of ideologies.

4. Barbarism unleashed against women over the years and causes:

Moreover, it is very alarming that the present case of atrocities against women has reached an alarming level. Two such instances may be pointed out here. One was closer to our border, the 1971 tragedy which has led to the birth of Bangladesh. Data reveals that 1971 saw the worst kind of violence, rapes, displacement, cleansing of populations and women were the worst sufferers. There were some mind-blowing data of how the women were tortured by western military forces. Another instance was in 1994, in African small country Rwanda, there was the ethnic violence between the two ethnic communities and within a span of three months' time war, million lives were lost. Hence, one has to imagine the kind of barbaric violence and genocide were unleashed against women. However; the argument given was that women bodies are the battlefields and raping and torturing women brutally gave one the sign of superiority. Furthermore, in so many parts of the world there is the tendency of women being exploited and brutally treated. The assumption given for such ponderous act is that by torturing, controlling and raping women brutally one party scores a psychological victory. Moreover, by the twenty-first century more than 150 million lives were lost not because of wars between countries and nation states but because of civilian violence. And in this entire phenomenon, the worst kinds of victims



are women and children. Moreover, we find that in the Vietnam War the American military in their murderous rage indiscriminately started firing in a small village known as Mila which was completely destroyed and the people who stayed back were women, children and poor.

5. Women as Peace Builders and Warriors:

The reason behind why women are the frontline war victims is that the psycho-social violence against women is very much rooted in our societal thinking. However; the international communities are getting more and more conscious about the typical tendency of punishing women as war victims. Lots of internal regimes has been placed and national governments has passed many resolutions so on and so forth. However, when we think about women as victims of conflicts as well as we can also think of women as agents of peace building. Moreover, the argument that has started gaining grounds after a deeper realization is that women have suffered much more severely than men in violence situation. Thus, they understand the negativity and violence and pains of war in more sensitive terms. Hence, they could be excellent peace builders and should be taken as agents of peace buildings. Thus, they are the best hopes of peacefulness. A lot of discourses are resonating in the world today of the journey of women as victims to agents of peace buildings. Several instances from the national and international history show that women could be warriors also. In Sri Lanka, LTTE (The Liberal Tigers of Tamil Eelam) has used women as their frontline worriers. Moreover, we could recall here how Rajib Gandhi was killed by a woman suicide bomber. Similarly, the Naxalite used women as part of their military action and sometimes very successfully. In Nepal, in the Maoist conflict there is a very strong role of women warriors. Hence, women can act as warriors also. The scientific explanation that goes behind these is the fact that women can play an equally effective role as peace makers as well. Moreover, we find women are more respected in the society in traditional, indigenous and cultural ways. Furthermore; United Nation Security Council Resolution 1325 has increased women's participation in decision making and peace process to a great degree. It is viewed that women have greater access in community enabling us to improve the protection of civilians and promotion of human rights. The 1325 Security Council resolution says that women understand the pain of warfare and violence much more poignantly than men. Moreover,1325 resolution viewed that women should be there in every layer of peace process whether it is negotiation,



mediation and peace keeping operations. Moreover, Evidences showed that south Asian countries like India, Nepal and Bangladesh has sent a lot of women peace keepers abroad. Moreover, Major Suman Gawani was first Indian peacekeeper who acted as a military observer mentoring over 200 military observers on conflict related sexual violence in 2019. However, it must be said that peace building is not simply a stopping a war between countries, it is also about stopping structural violence. Furthermore, Women can play a role not only in international life but also in local life. In every year we have the International Women's Day celebrations and in most of the times the theme relates to the question of peace and development. In 1997 the theme of international women's day celebration was women and peace stable, in 1998 the theme was human rights and women, in 2000 women uniting for peace, 2001's theme was women and peace: women managing conflict, 2013's was 'a promise is a promise' and in 2015 sustainable development goals were launched. But there were much difficulties also as there are tendencies seen in a patriarchal society to take the lead of peace processes by the male. For example, in Nepal, the Maoists glorify women fighters but when the peace process was started in Nepal, these important commanders and captains and the leaders of women were practically given no role in the peace process. Moreover, the role of women as international peace maker has been quite an instrumental kind of trajectory. In 2000, United Nation Security Council passed the 1325 which basically means women peace and security. The argument is known as WPS (women peace and security agenda) resolutions which were a series of resolution which talked about increasing role of women contributing to the process of conflict resolution. In India we have associations like Naga Mother's Association, in Nepal we have *Didi Baheni* which is meant to transcend victimhood and explore women's agency in peace process. But there is a long way to go. In 2015, a global study on the implementation of U.N resolution 1325 reveals that the progress of WPS agenda in the local level has shrunk from what it used to be earlier. Hence, it could be concluded that this is a work in progress. Though there is no denial of the fact that we have many illustrious women in the women peace process like Indira Gandhi, Benazir Bhutto, Mother Teresa, Malala Yousafzai and others. Thus, Feminist perspective is not simply about women themselves, but they are about macro reality, about democracy, human rights, environment, war and peace and peace building. Feminist commitment is not only to eradicate



gender injustices but to remove structural inequality in social and international order in every possible way.

6. Evolution of Women Centric Laws and India's take:

We notice that with the increasing participation of women in international peace building and international politics, laws are gradually coming out from the halo of patriarchy to more women centric. Moreover, participation of more women in law making bodies ensures stringent laws for the safeguarding of rights and security of women and girlchild.

Regarding the evolution of laws in India, India can be categorically divided into two parts. First, is the pre-independent and the second is the post-independent India. Moreover, to understand the women laws in India, we shall discuss the different provisions of the Constitution of India. The idea of Gender equality is deeply ingrained in the preamble of the constitution and the preamble itself indicates that there should not be any discrimination. Moreover, in the Part 3 of the Indian Constitution there are different provisions which dealt with the fundamental rights of the women. Furthermore, there are different directives which were given to the state while making their policy and these directives discuss how they should protect the rights of the women. Furthermore, we notice that while framing the policies in favor of the women, Article 14 of the Constitutions talks about equality which also includes gender equality. It prohibits any kind of discrimination and it also allows positive discrimination. Again, Article 15, clause 3 says that the state can make special provisions for the women and children. Moreover, the state has power to legislate something for the benefit of the women. Simultaneously, Article 16 says that there should not be any discrimination in the public employment. Moreover, Article 21 gives Right to life and dignity also to women. Furthermore, Article 23 prohibits woman trafficking. In Addition to, Under Directive principles of the state policy, there are several directions for the state which should be taken care by the state for framing their policies. And in these policies the protection, the right of the women has been given the prime importance either that is related to maternity leave, or that is related with wages, health or any other aspect of women.

India has the maximum number of legislations and provisions to protect the rights of women. We find that there are 54 provisions and legislations which exclusively protect the rights of women. However, this is not any celebrated thing. Moreover, the greater number of



legislations means that the society is less law abiding. It means that the Society has largely failed to take up their responsibility for women and children.

Moreover, there is legislation to safeguard the rights of women even when she is in the form of fetus in mother's womb. Furthermore, when a woman is pregnant there is a legislation which is trying to protect a girl child because majority of the people do not want a girl child and it is easily understood by the existing data that how the sex ratio between boy and girl is gradually reducing. Moreover, Pre -natal diagnostics techniques regulation and prevention of misuse act was enacted in 1994. The medical termination of pregnancy act was enacted in 1971 to stop the medical termination of female fetus.

We could find that several other legislations are there which come into picture for girl child's protection. The Protection of Children from Sexual Offence (POCSO) act was enacted in 2012 to give protection to girl child. There are Provisions of IPC to protect the modesty of girl child to protect her from rape, sexual intimidation, and different kinds of sexual harassment. Moreover, the girl child is not safe outside the four walls or within the four walls of the house. Furthermore, when a girl becomes a lady and starts working outside, there are several laws and regulations to stop the unwanted people to perturb her. The POSH act (Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal Act 2013) comes into picture to protect her at workplace. Again, if a woman is married, then there are also several legislations. Moreover, there is dowry legislation that dowry should not be demanded, or in case of a divorce, then there are several acts for her maintenance and her kids. Besides, there are Indian divorce act, special marriage acts etc. Furthermore, there are separate laws directing equal remunerations for both men and women. In Addition to, there are legislations to stop child marriage. Moreover, there are different kinds of protection under civil rights act and different kinds of presumption in the favor of women under the Indian evidence act. In rape cases, if the girl is said that she has been raped the presumption is always in the favor of the girl.

7. Patriarchal bias and the reasons:

But the situation is sometimes otherwise in Indian scenario. In India, we notice that inspite of so many legislations, women still fighting for her most basic fundamental rights. The reason behind it is that society's perception regarding women and specially working women



needs to change drastically. Some instances over the years proves the patriarchal bias of society. Let us discuss about some cases where the judiciary acted in a male centric way. In 1973, Aruna Shanbaug, while working as a junior nurse at a Bombay Hospital was being raped by a hospital ward boy. She remained in the vegetative state around 37 long years. But, in this case the offender was not punished for rape but he was held liable only for robbery and assault. Moreover, In the Mathura Rape case, a 16-year-old tribal girl was raped by two policemen within the premise of the police station. However, the Supreme Court set aside the conviction of accuse on the ground that there was no physical mark of injury on the body. All these incidents prove to the fact of less sensitive attitude for the rights of women by the Judiciary. Again, Bhanwari Devi, while trying to stop child marriage was brutally gang raped but when the matter was placed before the court the court gave the judgement that she was not raped. Moreover, The NGO *Vishakha* filed a petition in the Supreme Court and in which the Supreme Court in 1997 gave certain guidelines for the protection of the women at workplace. Since the guidelines of the *Vishakha* till the *Nirvaya* case, these guidelines are only working. However, inspite this, women still faced a lot of discrimination in their workplace. Furthermore, it was only a few months back there were some agitations in some European countries for equal pay for equal work. The pivotal cause of such discriminatory attitude is the age-old mindset of the people. Another incident also proves the patriarchal mindset of society. The classical example of *Nergesh Meerza*, who was happened to be an airhostess and according to the then rule set by Air India, she could not get married before completing four years of services and if she marries, she has to resign and even if she gets married, she is not allowed to get pregnant and she is only allowed to serve aviation industry up to the age of 35. Moreover, The Supreme Court strike down the rule saying that motherhood is the fundamental right of every woman and no organization can restrict it on its employees on the pretext of losing one's physical charm even if she is in some hospitable industry.

The *Shah Bano* case was decided by the Supreme Court in 1955. The Supreme Court had passed the exemplary judgement that a Muslim woman is entitled for maintenance under sec 125crpc if the amount received by her as dawat is not sufficient for her subsistence. Previously, Muslim come under personal laws and not included under maintenance laws. Moreover, The Supreme Court views that even a Muslim woman has all the right to claim maintenance under



sec 125 crpc. Recently, the Supreme court has banned the triple talaq and now there is a legislation also.

But, even in spite of some exemplary judgement by the Supreme Court we could notice a gradual rise of crimes against women. Since 80's till date there is notable rise of crimes against women especially sexual crimes like sexual harassment at the workplace and discriminatory attitude at their homes. Moreover, Data says that 90 percent of the cases against women happened within the four walls of the home and the perpetrator is someone near and a dear member of the family. Thus, we find that trust is dying in families.

8. Ancient India: the harbinger of Equality:

Men and women both are human beings but there are physical differences which cannot be eliminated. Moreover, women are procreators. Now to the question how this male-female equality to be achieved, we need to discuss some very interesting facts. We find that India is the only country where the feminist movements are initiated by men. According to Indian laws women were not allowed to decast their votes. Moreover, India is the oldest civilization which continuously sustained for a long period. In India, Women were considered superior. Furthermore, The Rig Veda is the most ancient literature even recognized by United States. Even, many portions of the Hindu succession act and Hindu Marriage Act are taken from Rig Veda. For America, gender equality means copying each other character. It includes taking the bad habits of others in the name of independence and equality.

But, in India equality means respecting uniqueness. Moreover, Indian society believes male and female comprises a whole, In the Rig Veda, we get to know about the presence of female educators and Vedik Rishikas who helped in composing Vedic verses. Ancient India gives the right to women to remain unmarried by choice, to choose their own husbands and they even enjoy share on paternal property and husband's property in case of married women. Ramayana, Mahabharata and other epics give much importance to women. Now, time has come when we should realize women's worth and welcome her to her respectable place in the society which was lost due to the ravages of time.



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ROLE OF KUDUMBASHREE IN POVERTY REDUCTION AND WOMEN EMPOWERMENT - AN ASSESSMENT OF IT'S 25 YEAR JOURNEY.

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Abstract:

The Kudumbashree initiative in Kerala indeed represents a commendable effort towards innovative poverty reduction, with a specific focus on women's empowerment. Launched in 1998, the program adopts a process-oriented strategy, distinguishing it from traditional project-based approaches. Over its 25-year journey, Kudumbashree has evolved into the largest self-help group network in the country, making significant contributions to community development and women empowerment. The celebration of the silver jubilee marked a significant milestone for Kudumbashree, with President Droupadi Murmu inaugurating the event in May 2023. This acknowledgment by the highest office in the country underscores the initiative's importance and recognizes its substantial achievements over the years. The organization's overarching goal is to empower women on various fronts—physical, social, economic, and political. Kudumbashree's multifaceted programs aim to foster the prosperity of impoverished families by disseminating information, raising awareness, enhancing capabilities, boosting confidence, and providing opportunities for improved social security.

Despite its considerable achievements, Kudumbashree faces challenges that need attention for sustained success. Concealed deficiencies could undermine the initiative's objectives and pose sustainability issues in the future. Ongoing efforts are essential to ensure the inclusion of a substantial portion of women who are currently outside the program's reach. While the organization has made remarkable progress, there is acknowledgment that much work remains to be done for Kudumbashree to reach its full potential and effectively combat poverty in the region. In summary, Kudumbashree's journey is marked by notable achievements and contributions to women's empowerment and poverty reduction. The organization's response during crises highlights its societal importance, and ongoing efforts are crucial to address challenges and expand the reach of its impactful programs.

Keywords: Kudumbashree, poverty, empowerment, self-sustainability, development.t



Introduction:

Kudumbashree is a poverty eradication and women empowerment program implemented by the Government of Kerala, India. Launched in 1998, it operates at the grassroots level with a focus on community-driven initiatives. The name "Kudumbashree" translates to "prosperity of the family" in Malayalam, the official language of Kerala. "Kudumbashree" is the Kerala government's ongoing participatory mission, and works through a three-tiered community network of women. The program aims to empower women and improve their socio-economic status by organizing them into small groups known as "Neighbourhood Groups" (NHGs). These NHGs serve as a platform for women to come together, discuss issues, and collectively address challenges related to poverty, education, health, and gender inequality. Kudumbashree follows a participatory and inclusive approach, encouraging women to actively participate in decision-making processes and take charge of their own development. The program promotes various income-generating activities, skill development, and entrepreneurship among women, fostering economic independence and self-sustainability. One of the key features of Kudumbashree is its emphasis on social development through community-based initiatives. The program has been successful in mobilizing women at the grassroots level, creating a network of empowered individuals who work towards the overall well-being of their families and communities. Kudumbashree has received recognition for its innovative and effective approach to poverty alleviation and women empowerment, not just within India but also on the global stage. The success of Kudumbashree serves as an inspiration for similar initiatives aimed at empowering women and eradicating poverty.

Origin:

Kerala, situated in the southwestern part of the Indian subcontinent has a unique approach to poverty alleviation and development, through the "Kerala model of development", which sets it apart from the rest of India. This model provides the backdrop for the establishment of the Kudumbashree Mission. It was initiated in 1998, not directly in response to the 1996 People's Plan Campaign, but it has roots in the participatory planning initiatives undertaken during that period. The 1996 People's Plan Campaign was a significant political movement in Kerala led by the Left Democratic Front (LDF), with E.K. Nayanar as the Chief Minister. The campaign aimed at decentralizing the planning and decision-making processes, empowering local communities, and fostering sustainable development. Kudumbashree emerged as a result of the experiences and lessons learned during the People's Plan Campaign. Kudumbashree operates under the State Poverty Eradication Mission of the Government of Kerala and functions under the Local Self-Government Department. It focuses on the community development of women through self-help groups (SHGs), entrepreneurship programs, and various poverty alleviation initiatives. The program encourages women's active participation in local governance and economic activities. Financial support for Kudumbashree comes from various sources,



including the Union Government of India, the National Bank for Agriculture and Rural Development (NABARD), and other funding agencies. The program has been recognized for its success in empowering women, improving their socio-economic status, and contributing to community development.

Two key factors led to the creation of Kudumbashree are as follows:

- Firstly, in 1997, the Kerala Government formed a three-member task force to propose a State Poverty Eradication Mission (SPEM). The government officially announced the formation of SPEM during the 1997-98 state budget. The then Prime Minister of India, Atal Bihari Vajpayee, inaugurated SPEM in May 1998. However, it began full operations in April 1999 under the name Kudumbashree Mission. This entity operates within the framework of the Local Self Government (LSG) Department of the Kerala Government.
- The second immediate context is rooted in the 73rd and 74th Constitution Amendment Acts. These legislative acts established local self-government institutions as constitutional bodies at both rural and urban levels. These institutions represent the third tier of governance in India, distinct from the Central and State governments. The Kerala government capitalized on this constitutional amendment to implement poverty alleviation programs through local participation and self-governance bodies.

Objectives:

The key objectives of the Kudumbashree program include:

- **Economic Empowerment:** Kudumbashree promotes various income-generating activities and provides training and support to women to engage in small-scale businesses, entrepreneurship, and self-employment.
- **Social Development:** The program focuses on enhancing the overall quality of life in communities by promoting health, education, sanitation, and environmental sustainability.
- **Democratic Decentralization:** Kudumbashree empowers local communities by involving them in decision-making processes, leading to greater participation and ownership of development initiatives.
- **Gender Equity:** The program actively works towards gender equality by providing women with platforms for leadership, decision-making, and skill development.
- **Microfinance and Self-Help Groups:** Kudumbashree encourages the formation of Self-Help Groups (SHGs) to promote savings, financial literacy, and access to microcredit facilities.
- **Poverty Alleviation:** By addressing economic and social issues at the grassroots level, Kudumbashree contributes to poverty alleviation efforts in the state.



Major Features:

The key features of Kudumbasree are as follows:

- **Women-Centered Approach:** The program places women at the forefront of poverty reduction efforts. It recognizes the pivotal role that women play in driving socio-economic change within their families and communities.
- **Local Government Leadership:** Kudumbasree operates under the leadership of local governments, emphasizing the importance of community involvement and decision-making. This approach ensures that the initiatives are tailored to the specific needs of each area.
- **Holistic and Participatory:** The program takes a comprehensive approach to poverty reduction, focusing not only on economic aspects but also on social and cultural factors. The active participation of community members ensures that the solutions are relevant and effective.
- **Micro Enterprises and Economic Development:** Kudumbasree's emphasis on micro enterprises serves as a means to generate income and create employment opportunities for marginalized individuals. These small-scale businesses contribute to poverty alleviation and promote balanced economic growth.
- **Women-Owned Businesses:** The program recognizes the potential of women-owned businesses as a driving force behind economic growth. By supporting and promoting women entrepreneurs, Kudumbasree aims to increase household income and improve overall quality of life.
- **Investment in Social Services:** The increased income earned by women through their involvement in micro enterprises is often reinvested in critical areas such as healthcare, education, and housing. This contributes to improved well-being and quality of life for families.

Structure –A Three-Tiered Community Network:

The Kudumbashree model is not only about economic empowerment but also about social and political empowerment by involving women in decision-making processes at various levels. The structure featuring three tiers of governance have evolved from two distinct origins. The first is the result of efforts by individuals and civil society groups, while the second originates from government-driven initiatives. The three tiers are as follows:

- **Neighbourhood Groups (Ayalkootam):** The first tier consists of small groups of 10 to 20 women, known as Neighbourhood Groups. These groups are the foundation of the network and serve as spaces for women to come together, deliberate, and engage in activities. Their primary activity is thrift and microcredit, where women save money collectively and also engage in discussions during weekly meetings.
- **Area Development Societies:** The second tier involves multiple Neighbourhood Groups coming together to form Area Development Societies. These societies enable coordination and collaboration among different groups in a specific area.



- **Community Development Society:** The third and highest tier is the Community Development Society. It oversees and coordinates the activities of multiple Area Development Societies. This level connects the network with local self-government institutions and other external bodies.

Basic Initiatives:

Kudumbashree has gained recognition as one of the largest women's self-help movement programs in India. Kudumbashree's initiatives are designed to empower women economically, socially, and politically while contributing to poverty reduction and sustainable community development.

- **Thrift and Microcredit:** Neighbourhood Groups engage in regular discussions and contribute to collective savings. This activity helps women gain financial independence and access to microcredit.
- **Income-Generating Activities:** The network plans and implements income-generating activities that involve agriculture or micro-enterprises. These activities are conducted jointly by the members of the network, further contributing to economic empowerment.
- **Active support to Local Self-Government Institutions:** The network actively engages with local self-government institutions, partnering with Panchayats in rural areas and Municipalities in urban settings, to formulate and execute initiatives such as anti-poverty plans, women component plans, and various local development schemes.
- **Beneficiary Identification:** The network assists in identifying beneficiaries for government welfare programs at the central and state levels, ensuring that those in need receive support.
- **Liaising with Banks:** The Community Development Society serves as a liaison between the network and banks, facilitating access to loans for the activities and initiatives of the network.
- **Capacity Building:** The society provides training and information to women, empowering them to take on leadership roles and develop various skills.
- **Gender Awareness:** The network works to create awareness around gender-related government initiatives, violence prevention against women, and legal literacy.

Achievements:

Kudumbashree is dedicated to enhancing the socio-economic status of women by organizing them into self-help groups and providing training and opportunities for various income-generating activities. The achievements of Kudumbashree are notable:

1. The organization boasts a membership of over 4.3 million women, organized into Neighbourhood Groups, Area Development Societies, and Community Development Societies. This hierarchical structure facilitates the effective implementation of programs and initiatives.



2. Kudumbashree has successfully collected approximately 47.52 billion Rupees through thrift and savings programs. This underscores the financial empowerment of women achieved through collective saving and investment.
3. Kudumbashree members manage around 2600 small-scale enterprises, showcasing the initiative's success in promoting entrepreneurship and creating business opportunities for women.
4. The Kudumbashree Mission plays a crucial role as the National Resource Organization for the National Rural Livelihood Mission, extending its technical and training assistance to poverty eradication and livelihood initiatives in various states across India. This underscores the program's far-reaching impact beyond its initial implementation in the home state.
5. Kudumbashree serves as a significant platform for women entering local-level democratic politics, aligning with the mandates of the 73rd and 74th Constitution Amendment Acts that stipulate reserved seats for women in local self-government bodies. This depicts the program's pivotal role in fostering women's active involvement in decision-making processes at the grassroots level.
6. The NITI Aayog recognizes the positive impact of Kudumbashree on poverty reduction. The Multidimensional Poverty Index (MPI), which considers dimensions beyond income, reveals a decrease in poverty levels in states where Kudumbashree is active. This indicates that the program's approach to women's empowerment is positively influencing the overall well-being of communities.

Criticism:

As 'gender paradox' exist in Kerala, it suggests that despite progress in certain areas, challenges related to gender-based violence and discrimination still persists here. This situation, where despite advancements in some aspects of gender equality, there are still significant challenges that need to be addressed, calls for Kudumbashree to become a "strong counter-culture force". Therefore, there is need for the organization to actively challenge and change existing societal norms and attitudes that contribute to crimes against women. This could involve not only economic and political initiatives but also awareness campaigns, education, and advocacy to promote a cultural shift towards gender equality and respect for women's rights. The assessment of success or failure of Kudumbashree is quite complex and context-dependent with some common criticisms which are as follows:

- The impact of Kudumbashree may be limited in terms of geographical reach and scope. The program may not have reached all sections of the society or all regions within the state, leaving some communities underserved.



- As Kudumbashree is specifically designed for women's empowerment, it should adopt a more inclusive approach that involves both genders as initiatives targeting women alone may not effectively address broader societal issues related to gender equality.
- The sustainability of Kudumbashree's initiatives is sometimes questionable as they are heavily dependent on government funding. The long-term success of women's empowerment programs may be questioned if they lack financial independence or diversified sources of support.
- The success of Kudumbashree relies on skill development and income-generating activities for women. Thus, there might be challenges in providing relevant and sustainable skills that can lead to meaningful employment opportunities for the participants.
- Addressing deeply ingrained cultural and social norms can be challenging. Kudumbashree needs to tackle these barriers more effectively to bring about substantial changes in the status and treatment of women in society.
- There may be concerns about the effectiveness of the monitoring and evaluation mechanisms within the program.
- Kudumbashree's approach should be more refined taking into account the intersectionality of women's identities. This means recognizing and addressing the unique challenges faced by women based on factors such as caste, class, and religion.
- As societal challenges evolve, the adaptability of Kudumbashree in responding to emerging issues, such as the changing nature of work, technological advancements, or new forms of gender-based violence must be revalued.

Conclusion:

The Kudumbashree project has brought about significant socio-economic transformations in the lives of women in Kerala. This initiative has played a crucial role in reinforcing women empowerment strategies across the state. The impact of Kudumbashree extends beyond individual women, benefiting their families and communities as well. Notably, the success of Kudumbashree is evident in its positive effects on entrepreneurship and leadership among women, enhancing their collective capacity to work and earn. This has led to a substantial improvement in the overall status of women and their families. The importance of recognizing the contributions of women in the development process was emphasized during the International Conference on Population and Development in Cairo in 1994. Policy makers in the state are urged to comprehend the pivotal role women play in development. Empowering women and elevating their social and economic status are indispensable elements for unlocking the full potential of economic and political development within society, thereby ensuring sustainable progress. The success of Kudumbashree has been widely recognized both within India and internationally. It has received several awards and accolades for its impact on poverty reduction and women's empowerment. The program has been instrumental in transforming the lives of many women



and families in Kerala by giving them opportunities to become financially independent and active contributors to their communities.

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THE IMPACT OF KANYASHREE SCHEME IN HIGHER STUDY AMONG THE GIRLS: A CASE STUDY IN PATHAR PRATIMA BLOCK, SOUTH 24 PARGANAS, WEST BENGAL

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Abstract:

This research paper examines the impact of the Kanyashree Scheme on the higher education of girls in Pathar Pratima Block, South 24 Parganas, West Bengal. The study utilizes a mixed-methods approach, incorporating both quantitative and qualitative data, to analyse the scheme's influence on college students in an economically backward area. The findings reveal that the Kanyashree Scheme has significantly encouraged girls to pursue higher studies, reduced instances of child marriages, and enhanced the confidence and social standing of its beneficiaries. The overwhelmingly positive feedback from the beneficiaries underscores the scheme's success in meeting the needs of the girls in the study area. This research highlights the pivotal role of the Kanyashree Scheme in promoting girls' education and calls for its continued support to further empower and contribute to the socio-economic progress of the region.

Keywords: Kanyashree scheme, Education, women empowerment

(Paper published on 1st December, 2023.)

1. Introduction:

The Kanyashree scheme was introduced by Government of West Bengal in 2013. It directly helps the student with monetary support. It has mainly three main levels, Kanyashree 1, Kanyashree 2 and Kanyashree 3. Kanyashree 1 is for the Government school students of age group 13 to 18 yrs. who normally belong to class VIII to class XII. A girl student receives Rs.750/- annually. Kanyashree 2 is the most important part of the scholarship which gives one time support to unmarried beneficiaries the amount of Rs 25000/-. The amount helps a lot for the students from poor backgrounds, they can easily use the amount as their requirement. After application and verification, the amount is directly deposited in their bank account. The Kanyashree 3 is for the postgraduate students and any other professional courses (under Government organization); amount varies for different courses.

Documents required for Kanyashree 2:

- i. Unmarried certificate
- ii. Madhyamik Admit Card
- iii. Candidate's AADHAAR Card
- iv. Guardian's ID Card (Voter ID or AADHAAR Card)
- v. Passport Sized Photo
- vi. College Admission Receipt
- vii. Bank Passbook



2. Literature Review:

The Kanyashree Prakalpa Programme, initiated in 2013 by the Government of West Bengal, aims to empower disadvantaged adolescent girls. Several studies have explored its impact, revealing key insights.

Sen. A (2017) investigated the determinants of child marriage in West Bengal and India, revealing that contrary to common belief, poverty wasn't the primary driver of underage, marriages in West Bengal. Instead, their study highlighted the significant role of girls' interest in higher education in reducing early marriages, stressing the need for educational interventions in combating this issue.

Dr. Soy.S. S (2019) examined the Kanyashree Project's dynamics in government schools of Paschim Bardhaman District, showcasing its positive influence on girls' academic development. Their findings emphasized the project's contribution to motivating girls to persist in education, effectively curbing dropout rates and fostering academic progress.

In 2020, Dutta. A and Sen., had conducted a comprehensive evaluation of the Kanyashree Prakalpa Programme, emphasizing its successes in curbing underage marriage and dropout rates among adolescent girls. Their report highlighted the need for complementary educational reforms and sex education to augment the program's impact, emphasizing broader social and educational factors beyond financial incentives.

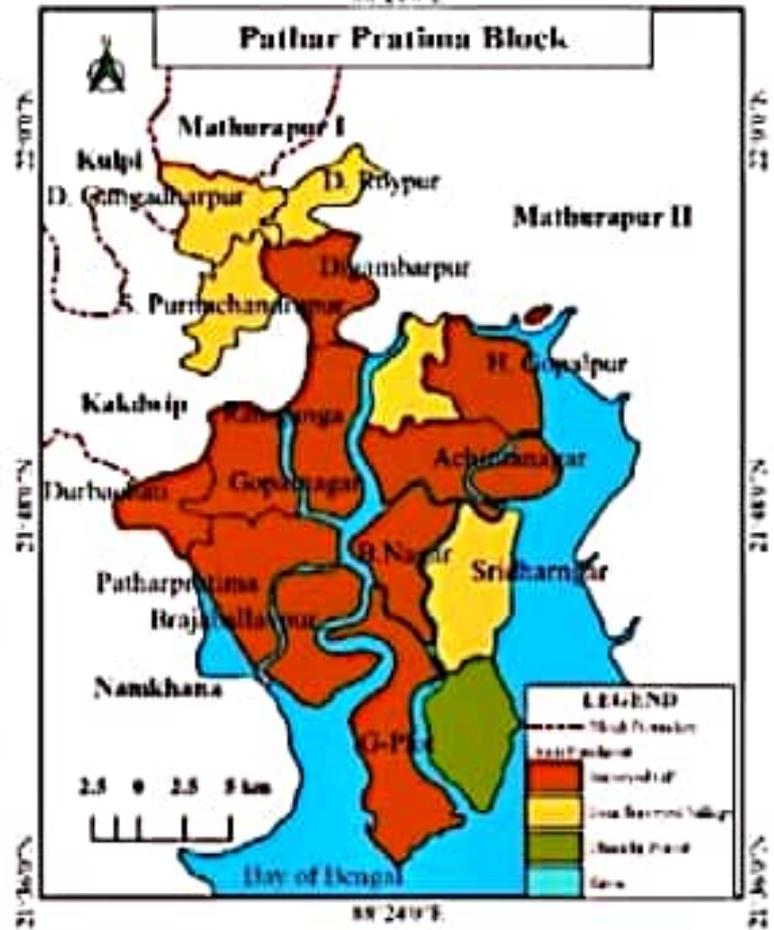
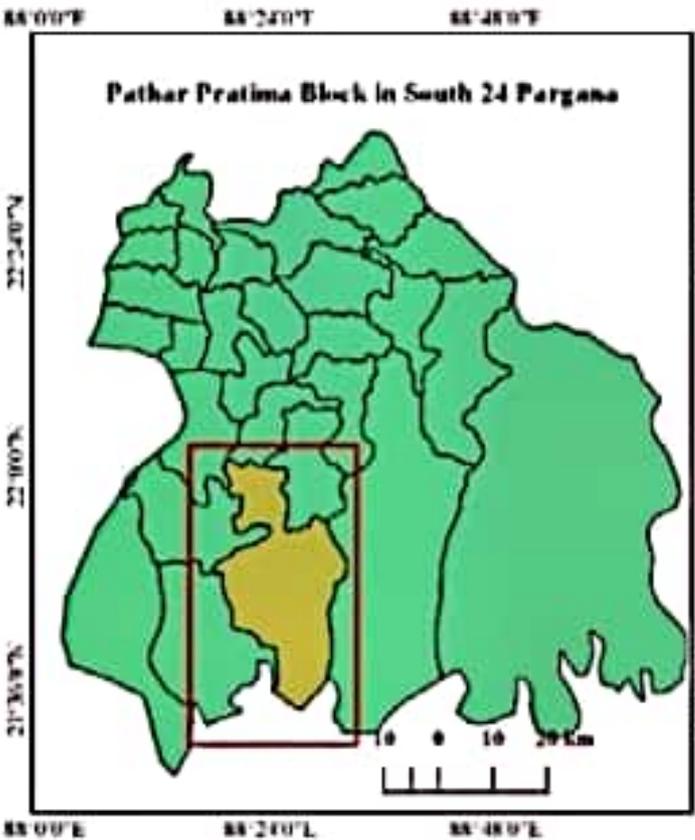
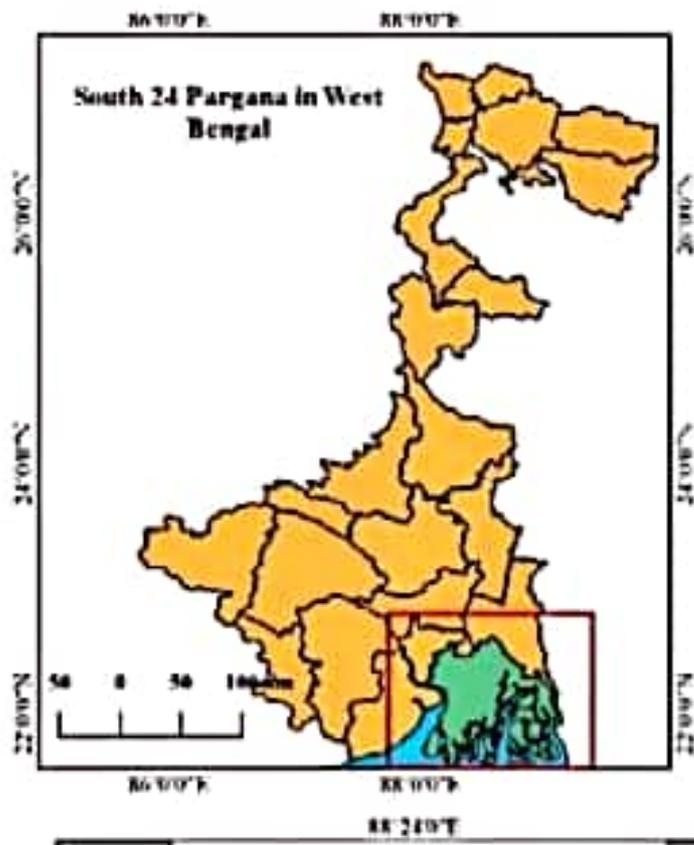
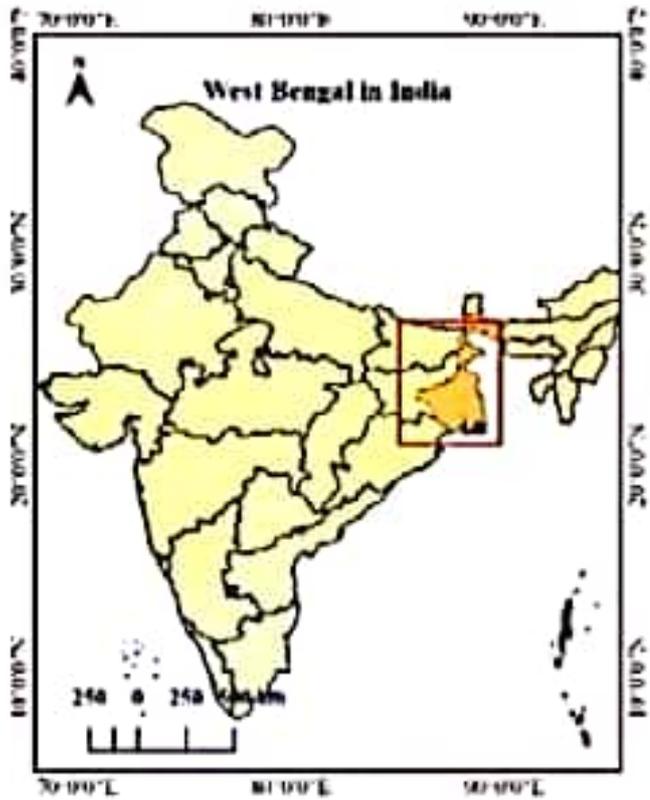
Das.P's study in 2021 analysed the Kanyashree Prakalpa scheme's impact on women's empowerment, showcasing its positive influence on reducing child marriage rates, incentivizing education, and bolstering social power among adolescent girls. However, it also underscored challenges like fund misuse, advocating measures to address these issues for enhanced effectiveness.

Karim. A., Palit. K., & Guha. D (2021) highlighted the Kanyashree Prakalpa's role in empowering girls through education, emphasizing its significance in ensuring continuous education up to the post-graduate level. Their review discussed various support initiatives like ration distribution, WIFS tablets, and activity tasks, stressing the importance of consistent support for girl students in diverse scenarios.

Similarly, in 2021, Dey. S., & Ghosal's study showcased the program's success in reducing child marriage rates and boosting educational attainment among girls in West Bengal. Their research, using differences-in-differences methodology and household survey data, underscored the program's positive impact on enhancing the well-being and empowerment of girls in the region.

Most recently, Saha. M's (2023) study delved into the Kanyashree Prakalpa program's role in reducing child marriage and promoting girls' education through conditional cash transfers. Utilizing survey data, the analysis offered valuable insights into the program's outcomes, distribution patterns, and societal implications in West Bengal.

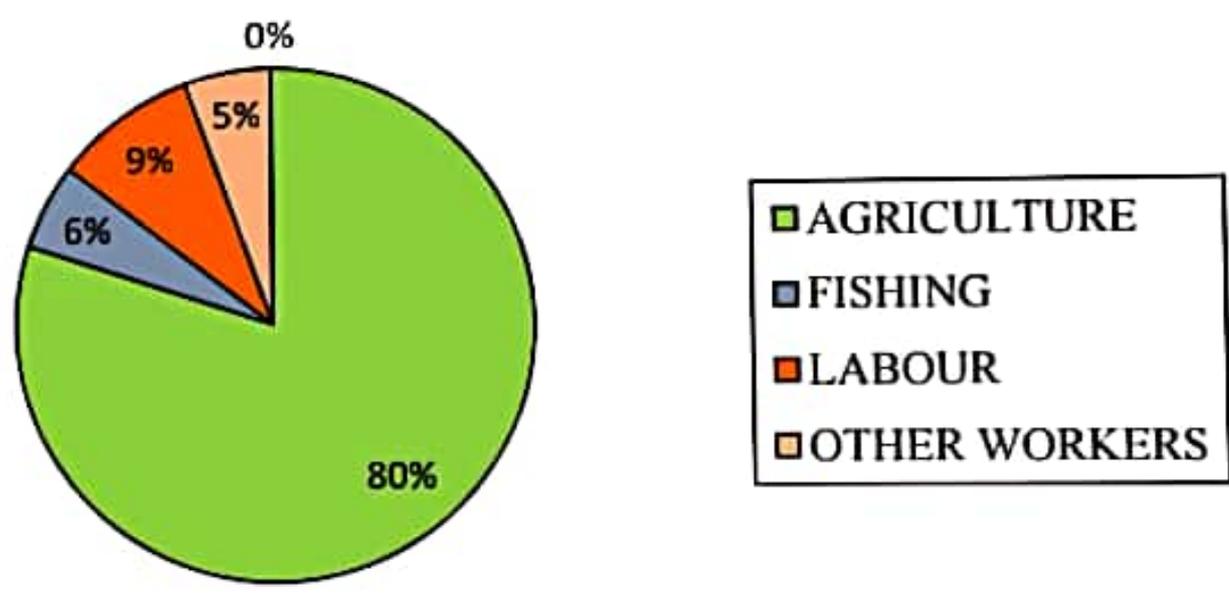
Overall, these studies collectively emphasize the significance of education, financial incentives, and broader socio-cultural factors in empowering girls and reducing child marriage in West Bengal. They underscore the necessity for comprehensive interventions addressing both educational and socio-economic aspects to effectively combat these challenges faced by adolescent girls in the region.



Gabindapur Abad, Kestomohanpur, Purba Shripati Nagar, Paschim S...
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Occupation of the resident of the respondents:

OCCUPATION STRUCTURE OF THE RESPONDENTS



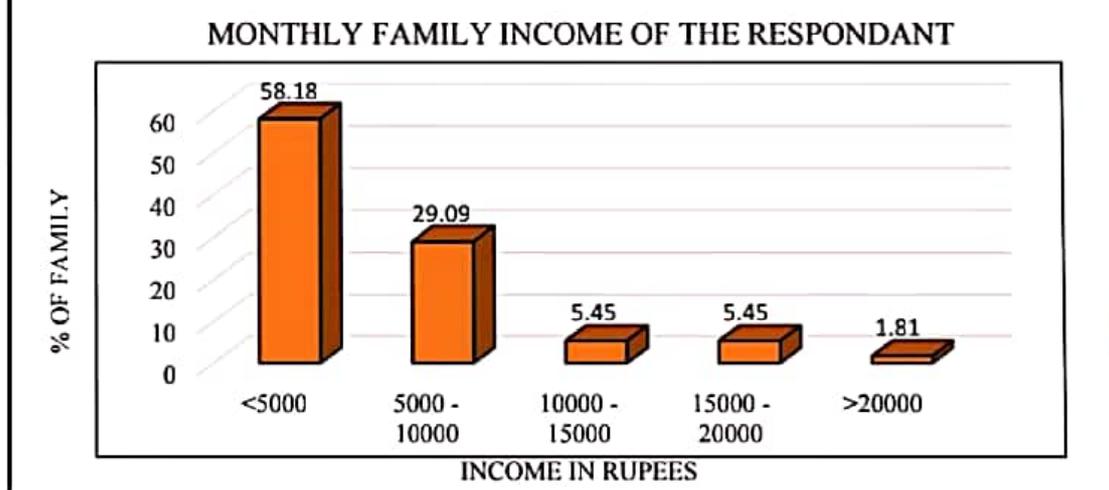


Fig. 3, Family income

The average income is low in this area, about 58% of people earn <5000 and 18% of surveyed students belong to BPL category. While 29% here the fa within the range of Rs 5000-10,000/-. Both the categories within the range of 15,000/- and 15,000-20,000/- family income the percentage were 5.45% each. primary data only <2% family earn above Rs 20,000/- per month.

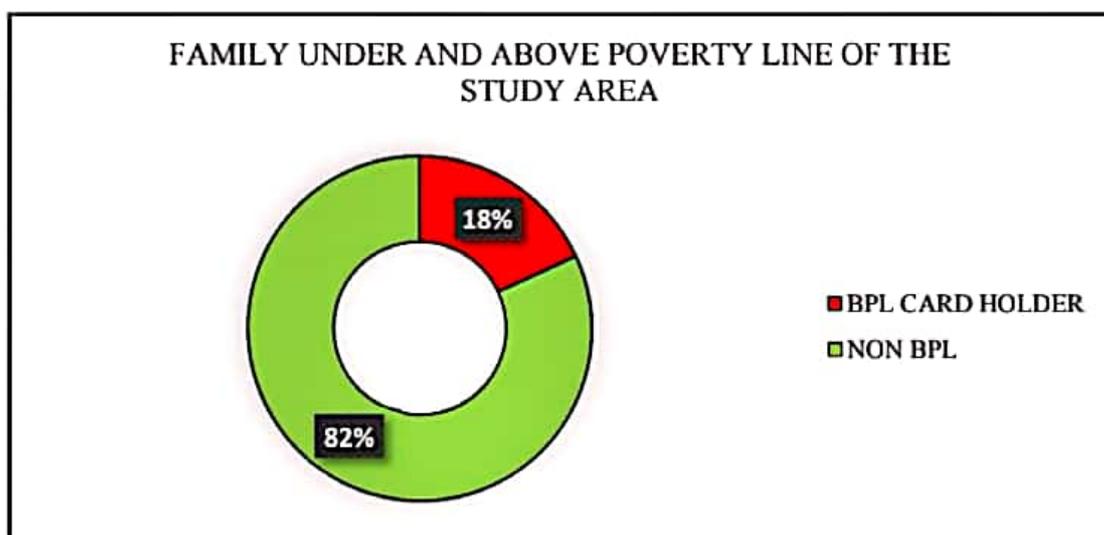


Fig. 4, Family under and above BPL

As 18% of the respondents belong to the BPL category, the scheme helps a lot i studies at the graduation level. The non-BPL families are also enjoyed the benef

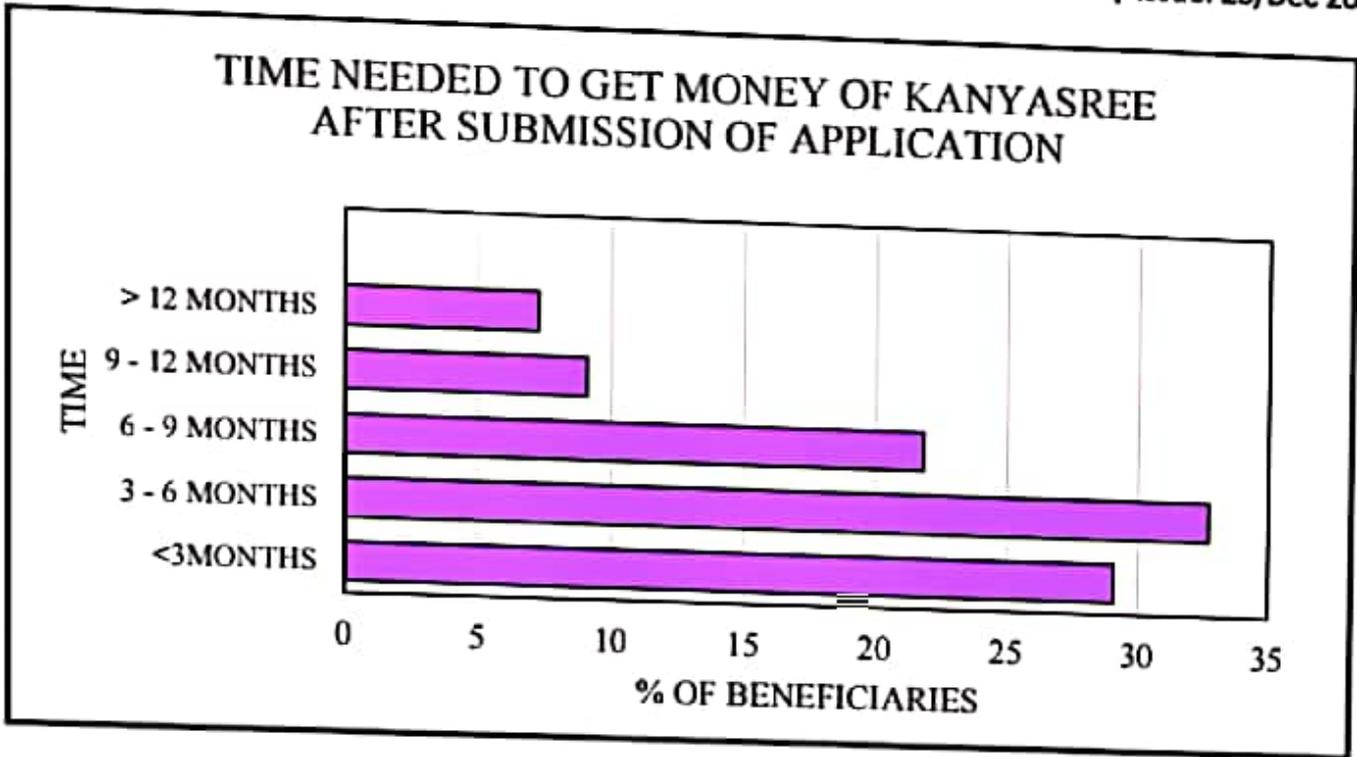
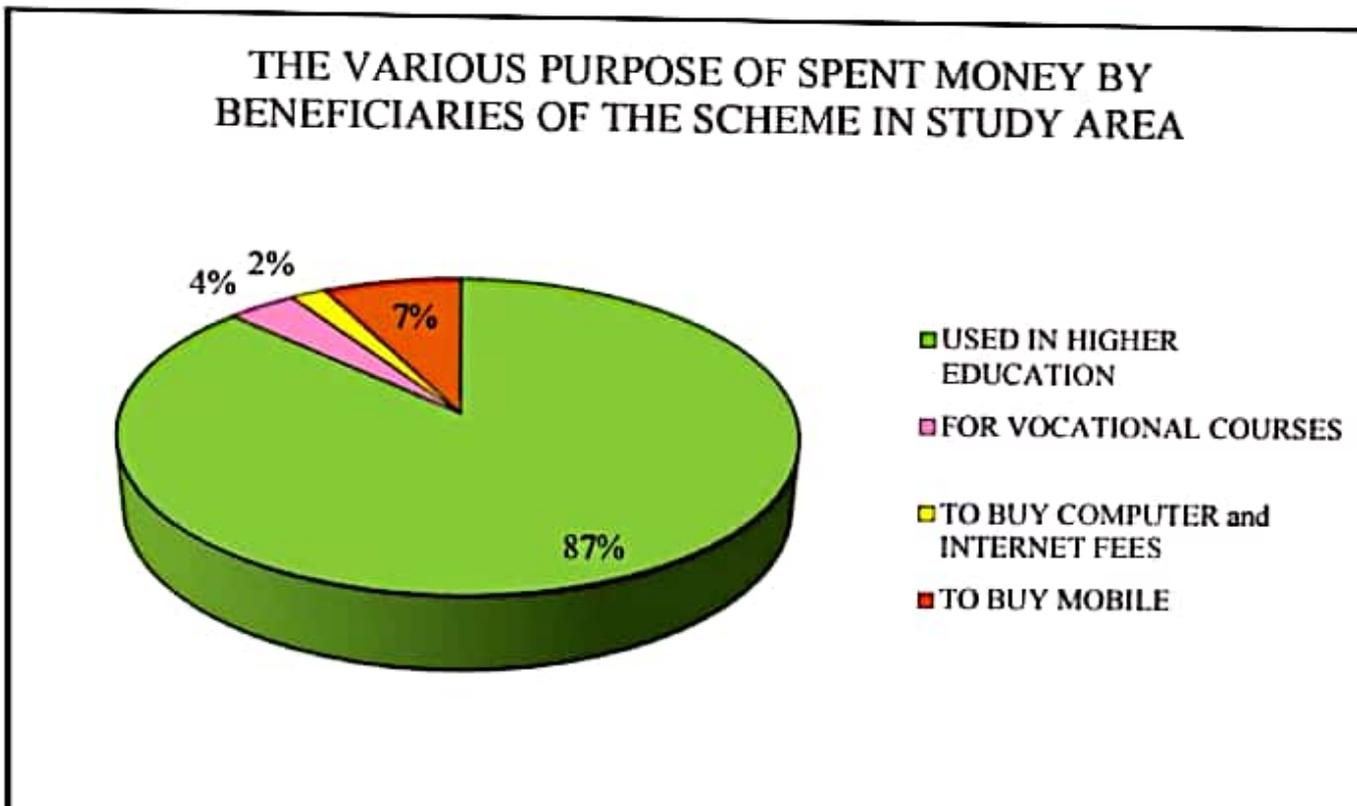


Fig. 5, Time needed to get money from the Kanyashree scheme

The diagram shows that the majority of beneficiaries receive their money within 3 months to 3-6 months after submission of their documents. However, a portion also wait up to 6 to 9 months and a small number wait more than 9 months. This variability in waiting times can create uncertainty and hardship for beneficiaries, especially those who are relying on the money for immediate needs. While the Kanyashree scheme is a commendable effort to support girls' education, the speed of its benefit distribution should be improved. A faster distribution process would ensure that girls can access their funds quickly and use them for their education without delay.



IMPACT OF KANYASHREE IN THE LIFE OF THE SCHEME HOLDER



may also help to raise awareness of the importance of education for girls, and to change social attitudes towards girls' education.

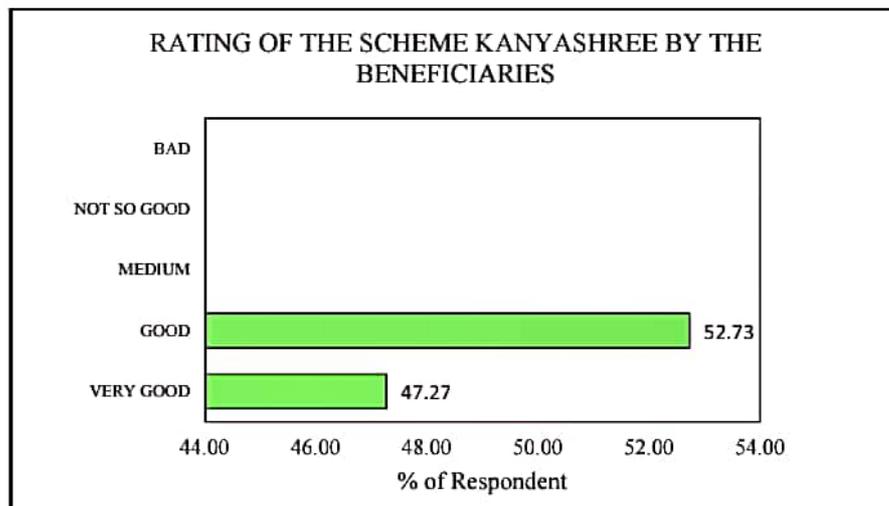


Fig. 8, rating of the scheme by the beneficiaries

The Kanyashree scheme has received overwhelmingly positive feedback from beneficiaries in the study area. 100% of respondents rated the scheme as either "Good" or "Very Good." These findings suggest that the Kanyashree scheme is successful in meeting the needs of its beneficiaries in the study area.

7. Conclusion:

In summary, this research highlights how the Kanyashree Scheme has made a big difference in encouraging girls in Pathar Pratima Block, South 24 Parganas, West Bengal, to pursue higher studies. The scheme's support in terms of money, along with its focus on education and skill-building, has really helped girls from less privileged backgrounds. It has led to more girls enrolling and staying in school, reduced instances of child marriages, and boosted the confidence and social standing of those benefitting from it.

Looking ahead, it's crucial to acknowledge how powerful the Kanyashree Scheme can be in continuing its positive impact. To make it even better, we need to tackle issues like money being used in the wrong way.

So, it's really important to keep the Kanyashree Scheme going strong. By learning from what's worked and making it even better, this scheme can keep empowering girls and contributing significantly to the socio-economic progress of the region.



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Abstract:

Empowering women to participate in economic activities like men in all sectors is absolutely essential to build stronger economies, overall development and sustainability. For societies to thrive, all people must have equal rights, exercise their own voice, and live free from any kind of harassment, discrimination and violence. When women are empowered economically, they invest in their families; improve the quality of life for men and women themselves creating more stable societies. In this background, the paper examines the status of women economic empowerment in the villages of Jagachha Block in Howra district of West Bengal during the past two decades. This paper used both primary data collected through socio-economic survey and secondary data taken information published in books, journals and other government reports. Howra is well known for its long association of industrialisation particularly heavy and medium scale industries but in recent times a large number of small scale industrial activities carried out in the rural areas of the district which provide part time and full time jobs to the rural folk. Being employed in local industries women increased their self-esteem, confidence and responsibility, and brought change in men's perceptions of women's economic contributions toward the household and made financial decisions more equitable between men and women. Finally it provides some suggestions to meet the challenges and path forward to move ahead.

Keywords : development, discrimination, industrialisation, economic contribution



In India nearly 70 per cent population lives in rural areas and rural labour force has growing rapidly. As the land available for agriculture is limited, there is need to expand the non-farm activities. Rural industrialisation is considered an important vehicle for the generation of productive employment using both skilled and non skilled labour force. The central and state Government through various formal institutions and budget allocation supports rural industrial activities. An important feature of these industries is that as these are located locally a large number of women are employed here. When women find employment, it helps them to sustain in a well organised and satisfactory manner.

Objectives:

The main objectives of this research paper are:-

1. To understand the position of India in Global Gender Gap Index
2. To assess the need of women economic empowerment
3. To examine the impact of rural industrial growth on women empowerment

Methodology:

This research paper is basically descriptive and empirical in nature. Primary data is collected from field survey conducted during the month of November 2021 to April 2022 in order to examine the impact of rural industries on female empowerment outcomes. By applying techniques of stratified random sampling, sample was collected to fulfilment the basic objectives of the research work. The sample size constitutes with 217 women. With the help of semi structured questionnaire, socio-economic survey has been done to understand better how people's outlook, the employment status and other indicators particularly the lives of women are affected by the setting up small scale industries in their villages.

A series of hypothesis testing using Chi-square test (x^2) relating to this issue is done. While comparing the calculated value (x^2_{cal}) with the tabulated value (x^2_{tab}) (k-1) degree of freedom at 0.01 significance level in most cases was chosen. If $x^2_{cal} > x^2_{tab}$, null hypothesis (H_0) reject in favour of alternate hypothesis and vice versa.

Study area:

Bally- Jagachha is a Community Development Block under Howra Sadar Sub division of Howra district, West Bengal. The total area of the block is 72.05 sq km with a population of 209504 (2011 Census). Nearly 5 per cent of the Block population lives in rural area. The population constitutes 15.41 per cent Scheduled caste population. Muslims shares 24 per cent to the total population. About 52 per cent population is male and their literacy rate is 89.2 per cent. Females are lesser in number having 79.08 per cent literacy rate. Therefore, gender gap exists in terms of population and literacy. Only 30 per cent of the population is engaged in agriculture.



Global Gender Gap in Economic Participation and Opportunity: Status of India

The Global Gender Gap Index was first introduced in 2006 by the World Economic Forum to study the magnitude towards gender parity and compare countries' gender gaps across the four thematic dimensions-economic participation and opportunities, educational attainment, health outcomes and political empowerment. Out of the 153 countries and economies covered in 2021, India ranked 140th, the third-worst performer in South Asia. According to this report, India has closed 62.5% of its gender gap in 2021 and has slipped 28 places from previous report. A closer look at the results for each sub-index provides a better understanding of complete assessment.

Table 1: India's rank in Global Gender Gap

Year	Global Index		Economic Participation and Opportunity		Educational Attainment		Health and Survival		Political Empowerment	
	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank
2021	0.625	140	0.326	151	0.961	114	0.937	155	0.276	51
2020	0.668	112	0.354	149	0.962	112	0.944	150	0.411	18
2018	0.665	108	0.385	142	0.953	114	0.940	147	0.382	19
2016	0.683	87	0.408	136	0.950	113	0.942	142	0.433	9
2014	0.645	114	0.409	134	0.850	126	0.937	141	0.386	15
2012	0.442	105	0.459	123	0.853	121	0.931	134	0.334	17
2010	0.616	112	0.403	128	0.837	120	0.932	132	0.291	23
2006	0.601	98	0.397	110	0.819	102	0.962	103	0.227	20

Source: *Global Gender Gap Report, World Economic Forum*

The gender gap in Economic Participation and Opportunity is the second-largest among the four key components measured by the index. According to 2021 Global Gender Gap report, index results 58% of this gap has been closed so far. The slow progress seen in closing the Economic Participation and Opportunity gap is the result of two opposing trends. On one hand, the proportion of women among skilled professionals continues to increase, as does progress towards wage equality, albeit at a slower pace. On the other hand, overall income disparities are still only part-way towards being bridged and there is a persistent lack of women in leadership positions, with women representing just 27% of all manager positions. (Global Gender Gap Report, 2021 pp 5)

India's gender gap on this dimension widened by 3% in 2020-21 leading to a 32.6% gap is a serious matter of concern. One of the most important causes of such inequality between men and women is women's underrepresentation in the labour market. Female participation rates in India declined from 34.1 per cent in 1999-2000 to 27.2 per cent in 2011-12 and 22.3 per cent in 2020-21, and wide gender differences in participation rate also persists. A considerable variation between urban and rural areas is also observed. The continuous drop in the employment levels of rural women has been a major factor contributing to the overall decline of India's female labour force participation rate. The participation rate of rural women decreased from 26.5 per cent in 2009-10 to 25.3 per cent in 2011-12 in contrast to the rate for urban women increased from 14.6 per cent to 15.5 per cent over the same period. Although a decline in labour force participation has been witnessed



across all social groups since 2004, the highest drop has been registered for ST women, followed by SC and Other Backwards Classes (OBCs) population in rural areas. It is alarming to note that female work participation has been declining despite rising Gross Domestic Product (GDP), increasing educational attainment, rising household incomes, and declining fertility.

Presently, the share of women in professional and technical roles is close to 29.2%. The women holding the senior and managerial positions are also remains low. About 14.6% of these positions are held by women and there are only 8.9% Indian firms headed by female managers. Further, the estimated earned income of women in India is only one-fifth of men's, which puts the country among the bottom 10 globally on this indicator. The report stated that India, home to 0.65 billion women, has widened its gender gap from almost 66.8% in 2020 to 62.5% in 2021. In Pakistan and Afghanistan, the income of an average woman is below 16% of that of an average man, while in India it is 20.7%. Among the 153 countries studied, India is the only country where the economic gender gap is larger than the political gender gap.

Need of Women Economic Empowerment:

Women's economic empowerment is a prerequisite for sustainable development. Women usually perform the bulk of household work, they are denied to access to economic assets such as land and also discriminated by offering low wages, lower rank of jobs and insecurity. Laws in many countries restrict women's economic opportunities, dictating the types of jobs that women can do, or giving husbands the right to prevent their wives from accepting jobs. Women's economic empowerment, therefore, means the process by which women increase their right to economic resources and power to make decisions that benefit themselves, their families and communities. With improved financial security, women are expected to afford personal healthcare, to purchase articles on their own choice, to take decision independently and are more likely to play a leadership role in the communities they belong to. There is evidence of strong positive links between women's economic empowerment and foundational health outcomes for women and their families, including beneficial effects on nutrition, family planning, maternal mortality, and child mortality. Increasing the share of household income controlled by women may produce other benefits as well, including greater investment in children's education, delayed marriage, and reductions in gender-based violence.

Balancing maternity and family responsibilities along with work is of course a challenging task. Women's unpaid care contributes to economic growth but it also drains the market of its (female) work force. It has been estimated that if care work were assigned a monetary value it would constitute between 10% and 39% of GDP (UNRISD.2010). There is common practice is that women have less personal autonomy, fewer resources at their disposal, and limited influence over the decision making processes that shape their societies and their own lives. Empowerment strategies can develop women's ability to advocate and expand their own visions for their societies - including interpretations and changes to age old cultural beliefs and gender stereotypes.



Discussion and Results:

Impact of Rural Development on Women Empowerment:

Rural regions will not grow in the same way as the urban regions do. The promotion of rural development in a sustainable way has the immense potential of increasing employment opportunities in rural areas, reducing income disparities, stemming pre-mature rural- urban migration, and ultimately reducing poverty at its very source (Anriquez and Stamoulis, 2007) Since the local labour force is generally inadequate, both quantitatively and qualitatively for large firms Rural areas are very much reliant on small and medium-sized enterprises (SMEs).

The villages under the study are inhabited by traditional rural communities whose main earning comes from farming. During the past two decades, a good number of non- farm export industries came into the villages with the result that urban areas are formed. Many poor households took this chance of transition and they found jobs in the factories. Women also joined in the factory labour force. Women's participation in non farming activities cast quite different effects on the community profile. The aggregate income added to the community (per new job) and the per capita income may go rise because adding females normally means adding some new labours.

Some of the major potential benefits from women perspectives are observed as listed below:

Increase in income and employment: The magnitude of increase of income and creation of new job depends largely on the size and kind of business activities take place. Most of the factory here uses a high proportion of labour to other inputs, therefore, labour demand is increased that draw more new people including women in the labour force. As females are getting jobs in the factories they earn money.

Employment opportunities for married women: Married women commonly faced discriminatory attitudes and policies limiting their employment opportunities. Factory at a commuting distance increase women's employability steadily, particularly among married women and married mothers.

Family and work- dual responsibility of Women: The rise in women's labour force participation brought revolution in women's lives and roles. The shift from unpaid care work inside the home into part time or full time paid employment alters their time allocation for home and work place. Both married mothers and married women work for pay and men involved in domestic work. Mothers often sacrifice leisure time so that they can spend more time to paid work and child care.

Financial security: Women are considered better at saving money and planning household finance than their counterparts. Increasing contribution of women to household



income bring opportunity to secure financial future of them and their loved ones family members by monthly saving in bank and buying insurance.

Age pattern of employment among women: In the initial stage of industrial development, women at the peak reproductive ages of 25–35 years was lower than the women in the younger and older ages thus resulting M-shaped age pattern of women's employment in the study area. The labour force participation rate was 65% among women aged 35 to 39, 61% among women aged 40–44 years and 43% among women aged between 45 and 49 years.

Table: Economic advancement indicators as revealed from field study

	Individual/ Household level	Community Level
Productivity	Access to jobs	
	Access to technologies	Access to new technologies
Income	Raised the income level	
	Has individual and family savings	Financial asset generation
	Liquid cash in hand	
Consumption	Does not experience seasonal hunger	Formal and informal social safety net exists
Work environment	Work site is safely accessible for women	
	Work hours, wage do not same	Wage inequality persists
Prosperity	Individual and family wealth	Economic status of women acknowledged
	Pakka house, land and housing property	
	Better personal, reproductive, maternal health care	Reduce maternal mortality, increased Institutional delivery
	Calorie intake increased, malnutrition less	Food security, poverty reduction

Female labour Participation in the Small and Medium Scale Factories in nearby areas and the extent of Women Economic Empowerment:

Age of the respondents and level of economic empowerment:

For the purpose of the study, age of the respondents has been classified into four strata viz. early youth (< 25 years), youth (25-35 years), middle aged (35-45 years) and senior (> 45 years). It is found that mean age is significant as older couples associated with higher levels of empowerment. It is commonly assumed that younger people are more likely to efficient in work and open to ideas of women's empowerment. An older couple has more seniority and, thus decision-making responsibility, some of which is exercised by the female. To test whether there is significant relationship between the age of the respondents and the level of economic empowerment of women; the following hypotheses have been set.

Null Hypothesis (H_0): There is no significant relationship between the age of the respondents and their level of Economic Empowerment

Age (years)	Level of Economic Empowerment				Chi Square with 6df
	High	Medium	Low	Total	
	Numbers	Numbers	Numbers	Numbers	
<25	9	16	5	30	3.55
25-35	29	23	10	62	
35-45	32	28	13	73	
>45	18	21	10	49	
Total	88	88	38	214	

As, $t_{cal} < t_{tab}$ at 5 % level with 6 degrees of freedom; so, the result is not significant and hence null hypothesis (H_0) is accepted. Therefore, age was not significantly related to empowerment.

Caste and economic empowerment:

The respondents are classified into four groups, viz, General, Scheduled Caste (SC), Scheduled Tribe (ST) and other Backward Class (OBC A and OBC B). The results confirm that caste is an important contributor to women's empowerment, but the relationship is not so straight forward. About one fifth women belong to OBC A (mainly Muslim communities) reported experiencing some form of disrespect, undignified care and neglect. They earn money for families but they do not enjoy financial autonomy and are excluded from household decision making process. They are the least empowered compared to women of other communities. Women's empowerment is significantly higher the families belong to upper caste.

Null Hypothesis (H_0): There is no significant relationship between the caste of the respondents and their level of Economic Empowerment

Alternative Hypothesis (H_1): There is significant relationship between the age of the respondents and their level of Economic Empowerment

Table: Caste and Level of Economic Empowerment

Total	50	71	93	214	
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As, $t_{cal} > t_{tab}$ at 5 % level with degrees of freedom. The result is significant and hence null hypothesis is rejected and alternate hypothesis (H_1) is accepted. The women from general categories or upper caste are more empowered compared to that of other communities.

Education level of the females and economic empowerment:

It is believed that education plays an instrumental role in removing economic poverty by opening various job avenues for woman herself so that she can work hand in hand with man and give support to the family. For the study, the respondents are classified into five categories- primary (up to class IV), elementary (up to class VIII), secondary (up to class X), Higher secondary (up to class XII), graduate and above. To understand whether there is significant association is found between education standard of the respondents and level of economic empowerment, the following hypotheses have been set.

Null Hypothesis (H_0): There is no significant relationship between the education of the respondents and the level of Economic Empowerment

Alternative Hypothesis (H_1): There is significant relationship between the education of the respondents and the level of Economic Empowerment

Table: Education standard and Level of Empowerment

Education standard	Level of Economic Empowerment				Chi Square with 6df
	High	Medium	Low	Total	
	Numbers	Numbers	Numbers	Numbers	
Up to class IV	10	9	23	42	65.43
Up to class VIII	11	13	25	49	
Un to class X	31	22	13	66	

Marital status	Level of Empowerment				Chi Square with 2 df
	High	Medium	Low	Total	
	Numbers	Numbers	Numbers	Numbers	
Married	78	76	13	167	0.93
Unmarried	15	22	2	39	
Widows and Divorcees	6	2	0	8	
Total	99	100	15	214	

As, $t_{cal} < t_{tab}$ at 5 % level with degrees of freedom; the result is not significant and hence null hypothesis (H_0) is accepted. Therefore, no close relationship is found between marital status of the respondents and the level of economic empowerment.

Annual family Income and Women Economic empowerment:

Reducing discrimination in access to labour market would make better use of women's skills and abilities results economic development. Income of the family of the respondents seems to have relationship with the empowerment of women. Given that most of the women who receives payments are empowered and able to maintain balance of power and decision making within the family than women came from low income group but it is not easy to conclude that economic better off always help empowerment. To test this association, the following hypotheses have set.

Null Hypothesis (H_0): There is no significant relationship between the income of the family of the respondents and Economic Empowerment

Alternative Hypothesis (H_1): There is significant relationship between the income of the family of the respondents and Economic Empowerment

Table: Monthly Income of family and Economic Empowerment

	Level of Economic Empowerment	Chi Square with 2 df
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6001-8000	49	60	4	113	2.25
8001-10000	11	15	3	29	
>10000	6	2	0	8	
Total	98	106	10	214	

As, $t_{cal} < t_{tab}$ at 5 % level with degrees of freedom; the result is not significant and hence null hypothesis (H_0) is accepted. Therefore, no relationship is found between monthly family income of the respondents and the level of economic empowerment.

Distance of workplace from home and economic empowerment:

Home and work place are intimately related in a number of ways, and these links have different consequences for women than for men. Women usually perform a dual role in the household, combining wage earning with their primary role as mothers and household workers. Therefore, they prefer to commute less distance. In the past three decades changes have taken place in the spatial organization of work too, employment centres have shifted from downtown core to peripheral sub urban areas and in this study as a good number of leather units, hosiery factory set up in the locality that pull local women.

Null Hypothesis (H_0): There is no significant relationship between the distance of working place and home of the female workers and Economic Empowerment

Alternative Hypothesis (H_1): There is significant relationship between relationship between the distance of working place and home of the female workers and Economic Empowerment

Table: Traveling time between work place and home and Economic Empowerment

Distance of work place from home	Level of Economic Empowerment				Chi Square with 4 df
	High	Medium	Low	Total	
	Numbers	Numbers	Numbers	Numbers	
<30 minutes	53	41	18	112	



women to work and advance remains a priority area for policymakers and businesses in all developing countries.

2. Economists believe that BRIC nations will become dominant suppliers of manufactured goods, services, and raw material by 2050 due to low labour and production costs. India is struggling to achieve gender parity among its counterparts which hold better position in all aspects. India ranks the lowest in comparison with other BRICS nations and needs to take effort to outshine its counterparts.

3. Women have every right to control their own lives, both within and outside the home. They have enough potential to influence the direction of social change to create a more just social and economic order, nationally and internationally. Empowering the women through economic participation directly leads towards gender equality, poverty eradication and inclusive economic growth. Higher female earnings and bargaining power translate into greater investment in children's education, health and nutrition, which leads to economic growth in the long-term. In India, GDP could rise by 8% if the female/male ratio of workers went up by 10%.

4. Micro-finance including micro-credits is an effective instrument that promotes empowerment. Providing supplementary services – such as training, working through groups rather than individuals, or alongside other investments in awareness raising – has been shown to increase women's direct control over resources (UNDP, 2008)

5. This study found that female empowerment varies significantly by caste and this seems to reflect cultural differences between ethnic groups. It is clear that any successful regional development depends not just on policy coherence at any one moment but on creating community and governance arrangements that make it easier to sustain over time. Until and unless, they gain opportunities to speak up for their rights, they are not able to advocate for themselves and communities.

6. Women used to do most of the domestic work and child care, whereas men worked for pay the whole day and were responsible for providing family income. This has changed substantially in recent decades. Many respondents in the survey reported that domestic work has been shared equally between husbands and wives. The employment of married women creates dual-career couples, while the employment of married mothers forms dual-career families.

7. Rural-based women's labor force participation rates have risen in recent times but these women continue to be rewarded at lower wage rates and to experience marginal, discontinuous work history. Study found that household responsibilities did pose a constraint on the participation pattern of women folklore. Along with job, women's household responsibilities required them to be closer to home to deal with emergencies and minimize commuting time and thus they always prefer shorter work trips than men. However, women's position in the labor force has significantly changed the spatial and family structure within which they live and work.



Recommendations:

1. Women's labour force participation and access to decent work are important and absolutely necessary to achieve the goal of inclusive and sustainable development. Indian policy makers should take a comprehensive approach to improving labour market outcomes for women through improving access to and relevance of education and training programs, skills development, access to child care, maternity protection, and provision of safe and accessible transport, along with the promotion of a pattern of growth that creates job opportunities
2. Achieving women's economic empowerment is not a "quick fix". No single program can address all of the factors that contribute to women's economic empowerment. It will take a holistic approach and long-term commitment from all development sectors. Comprehensive research is suggested to find out multidimensional problems existing in the rural community.
3. Successful regional development depends not just on policy coherence at any one moment but on creating institutions and governance arrangements that make it easier to sustain policy coherence over time. There is a need for more common people particularly women to be involved and more bottom-up approaches with less orchestration from higher levels. Further investment in establishing training institutes and small scale industries could be an effective driver for rural development and women empowerment.

Conclusion:

Empowerment is a complex and multifaceted concept. Women's empowerment ensures gender equality and inclusive growth but it is hard to achieve in the truest sense within a generation; it is not only driven by mere information about choices but also by social acceptability of those choices. No single programme can address all the issues related to women economic empowerment but setting up industries in rural areas would definitely widens the scope of employment of women, raises income and living standard at household level and moving towards social justice. There are so many government and non government organisations are working to support rural industries. Large gender gap still remains. To bring gender equality policy makers need to focus on increasing women's access to economic opportunity and giving women an equal voice in household and society.



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A STUDY ON THE CHANGING PATTERN OF INDIAN AGRICULTURAL COMMODITY TRADE IN-THE PRE & POST WTO REGIME

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Abstract:

India has witnessed a clear shift in the mode of production & consumption of the agricultural product in their post WTO period. A new trend in consuming high valued agricultural commodities rather than traditional commodities that struck the World in the Post WTO era didn't leave India Unaffected. Therefore trade in high valued products like fruits & fruit Juice, Eggs, Fishery Items, Marine Products, Meat & Meat Products, Milk & dairy Products, Vegetables replaced the Export of Wheat, Rice, Gram, Pulse, Sugar, Tea, Tobacco, Coffee etc. After 2001 this trend has sped up. By increasing quality and food safety measures India has huge potentiality for the agricultural trade in the domestic market with huge demand and at the same time strike a tough competition as a global player in the international arena. The export & import of some produces and products have increased where as some have decreased and some have shown stability. In Post WTO era, other than some commodities like Cashew nut, wheat etc principle commodities have shown improvement in the export growth rate. This paper like many papers compares Indian agricultural export in the pre & post WTO era but at the same time it also took into consideration the commodity wise trade and both convergence & divergence in Indian agricultural export. This paper reveals that India was specializing in agricultural commodity export in the pre WTO period but it started gaining its expertise in agricultural commodity export in the post WTO era. In the course of our study we have found that WTO has made mixed impact on Indian agricultural commodity trade.

Keywords: WTO, Agricultural Trade, Import & Export growth etc.

(Paper published on 1st December, 2023.)

Introduction:

India with its large population of about 1.4 billion depends mostly on agriculture still today. About 50% of India's total population directly depends upon agriculture for job. India was among the early signatory of the WTO. The WTO is an institutional body which was formed on 1st January, 1995 with the objective of promoting global trade in more liberalised way. The WTO came into existence after the GATT (General Agreement on Tariffs and Trade) which was formed on 1948 with 23 member countries and the objective of growth and development of all member countries. In place of ITO, GATT was established in 1947 by the western nations. Since it came into existence GATT emphasized for the expansion and promotion of global trade by reducing tariffs and other forms of protection imposed by member countries on trade. GATT was less effective in the settlement of conflicts and disputes between DCs and LDCs in tariff, nontariff barriers and market access. World trade became more and more complex and GATT failed to apply its principles into practice, and thereby led GATT members to have fresh round of trade negotiations, the eighth round of multilateral trade negotiations popularly known as Uruguay Round, it covered new areas like agriculture, textile, TRIMS, TRIPS, services etc. The eighth and the most popular round known as Uruguay Round commenced in 1986, which was to be concluded in 1990 but this could not be happened as the issues involved in it faced huge dissatisfaction among the



participating countries. At the Uruguay Round, developing countries took on unprecedented obligations not only to reduce trade barriers, but to implement significant reforms on trade procedures, custom valuation and on many areas of regulation that established the basic business environment in domestic economy (example, technical, sanitary standards and intellectual property law). On December 20, 1991, the Director General of GATT and the Chairman of the trade negotiations committee, Arthur Dunkel, finally drafted a proposal covering all negotiation areas including TRIPS, which was finally accepted by 117 countries after years of discussions on 15th April, 1994 in Marrakesh, Morocco. Uruguay Round enclosed mandate to have negotiations in 15 areas, in part 1, negotiations on trade in goods to be concluded in 14 areas and in part 2 negotiations on trade in services. Thus this new round of negotiations also known as WTO agreement not only covers traditional GATT subjects but also new areas like Trade Related Intellectual Property Rights (TRIPS), Trade Related Investment Measures (TRIMS) and Trade in Services etc. In this way the GATT was converted to WTO on first January 1995 as a conclusion of the Uruguay Round agreement to give encouragement and promotion global trade. Several agreements had taken place in WTO summits. Some of them like Agreement on Agriculture (AOA) is mostly important. With the implementation of the provisions of the Agreement on Agriculture (AOA) by the members of WTO, the international trade opportunities are expected to change as trade barriers are reduced and free trade takes place. These changes would also ensure that competition among the countries in producing individual product or commodity will play a major role in the international trade. With the Agreement on Agriculture (AOA) in the Uruguay Round of GATT /WTO, an attempt was made to formalize the removal or reduction of these interventions, which distort the agricultural markets. The rules and regulations governing agricultural trade covered in the clauses of AOA required the nontariff barriers to be converted to tariffs, reduction of tariffs over a period of time, and reduction of subsidies to production and exports of agricultural commodities. Agricultural policies now are therefore, governed by the rules under the WTO. Measuring the extent of changes in those policies and examining the impact of such changed policies on agriculture and the economy are crucial to the member countries of WTO. In India too, government interventions in agricultural markets are seen in many forms, like fixation of support prices, procurement of marketed surplus for the public distribution to the consumers, maintenance of buffer stocks, provision of input subsidies, imposition of restrictions on movement of products and control on external trade in inputs and outputs through the tariffs and Quantitative Restrictions (QRs). The provision for removal of restrictions on agricultural import was mandated like 6 years time period was for developed nations (by year 2000) and 10 years for developing nations (by year 2004). Total agricultural export is around 11% of India's total export and it is the third largest producer of agricultural commodities in the world. Though with declining agricultural growth rate along with export shows country's loss in agri-trade due to deteriorating terms of trade but today in financial year 2018 India has become the second largest producer of food grains in the world. India's gross value added by Agriculture, Fishing & Forestry combines about US \$ 274.23 billion, which is amazing. India's total food grain production in financial year 2017-18 was 279.51 million tonnes. As per govt. data India is the 2nd largest producer of fruits in the world, largest producer, consumer and exporter of Spices and Spice products in the world and sixth largest food and grocery market in the world. India's tea & Coffee production reached record 240.68 million k.gs and 395000 tonnes in 2017-18 financial years, where India's total agricultural export grows at CAGR of 16.5% from financial year 2010 to financial year 2018.

1.1: Objectives of the study:

Our objective the study in this Paper is to compare & discuss the Export Growth, Change in Composition , Direction or Changing Destinations of Indian Agricultural Export, & Diversification of trade of major Indian agricultural Trading Commodities in the Pre & Post WTO period.



1.2: Research Methodology:

Our study which is based on the secondary data, has been divided into two time period, i.e. Pre WTO period (From 1986-87 to 1995-96) and post WTO period (from 1996-97 to 2016-17). These data has been collected from various secondary data sources which includes www.rbi.gov.in, government data from Ministry of Agriculture & Cooperation, NSSO reports, Agricultural census data, Beauru of Economics & Statistics, CMIE and other public reports, state government department of agriculture, internet website www.wto.org, Economic survey of India, (GOI) data like Ministry of agriculture, A.P.E.D.A., FAO trade & production year books, Indian Journal of Agricultural marketing and Indian Journal of Agricultural Economics, Related data published on E.P.W.S., Ministry of commerce Government of India and various papers published on interested topics. Reference period of the study is taken from 1986-87(pre WTO period) to 2016-17 (post WTO period). We have taken 1994-95 as the cut off date for pointing the pre and post WTO periods was the beginning of the WTO era from 1st January 1995, with the support of 123 founding members including India. This research study would discuss the comparative performance of trade of major Indian agricultural commodities during pre (1986-87 to 1995–96) and post WTO (1995-96 to 2016 – 17) regime. It would analyze the export performance and competitiveness of major Indian agricultural commodities during pre and post –WTO regime.

Where, $NPC_i = P_i^d / P_i^w$

Where NPC_i = Nominal protection coefficient of commodity i.

P_i^d ≅ Domestic price of commodity i.

P_i^w = World reference price of commodity i, adjusted for transportation, handling and marketing expenses.

Here, $NPC < 1$ indicates the commodity is exportable and $NPC > 1$ indicates that the commodity is importable.

The compound growth rates were worked out as follows:

In our Study we have Used **CAGR (Compound Annual Growth Rate)** to show how different exporting commodity's export growth is taking place.

$$CAGR = [\text{Anti Ln of Ln (b)-1}] \times 100$$

The mean annual growth rate can be synonymously referred to as compound Annual Growth rate (CAGR) of growth of agricultural production or export of a specified number of years. To calculate this we first divide the last year's value of agricultural growth by initial years value of growth then raise the value to the power of 1 divided by total number of specified years and ultimately we subtract 1 from it Which can be shown as,

$$CAGR = (\text{Ending Value} / \text{Beginning Value})^{(1/\text{numbers of Years})} - 1$$

Secondly,

We have used Simpson Index to show year wise diversification of Major Indian Agricultural trading Commodities. It is used taking three yearly export data together in both Pre & Post WTO period.

$$\text{Simpson Index} = D = 1 - (\sum n(n-1) / N(N-1))$$

Where,



D= Diversity,

N= the values of export of all agricultural commodities in a particular year.

N=the Value of export of a particular agricultural commodity in a particular year.

The value of D or Simpson Index varies between 0 and 1, where 0 implies no diversity and 1 implies infinite diversity of that particular agricultural commodity. Other than these, Percentage & ratio method has been used to show direction & composition of trade on yearly basis.

1.3: Limitation of the study: There exists certain limitations of the Study. Our Study is entirely based on secondary data. The data is collected from www.rbi.gov.org.in and various online and offline publications, (both Govt. & Non Govt. sources). Because of non availability of various data the objective of the study was influenced by the limited data sources.

1.4: Review of Literature:

Empirical Studies: The 12 OECD countries controls about 65% of the world's total Agricultural trade which was reflected in the book 'Negotiating the Future of Agricultural Policies' by Bilal (2001). One major finding in recent studies it has been revealed that since 1950 to 2010 it is found that real prices for agricultural exports of developing countries exports declined comparing to the relative prices of Imports of their manufactured goods by almost 70 percent (FAO 2004). The DCs mostly rely on exporting synthetic products and protectionism in domestic import of agricultural goods from LDCs. that is why the third world countries united drawing attention of the world in the WTO conference of CANCUN in 2003 on the pricing problems associated with the commodities. Though the chance is very less that the final outcome of the **DOHA** round will end with proper solution to the LDCs long standing grievances. Some important studies done recently have shown that terms of trade in agricultural trade declines in many very poor countries (Least Developed Countries as mentioned by the UN) especially Sub-Saharan African countries. These heavily indebted marginalized countries fell in the group where few agricultural commodities comprise about 90% of their total export making them marginal player in global trade (Watkins and Fowler 2002; FAO 2004; UNCTAD 2004). One study recently done by FAO show the terms of trade has declined to about half of these developing nations. A different opinion regarding TOT is found in case of BRICS and ASEAN nations by policy makers. There has been substantial empirical literature on various aspects of this research paper. Where some of the researchers have expressed their opinion which is as follows,

Samar Datta (2000). According to S. Dutta, India is self sufficient in competing with the world in rice export. And India needs not to worry about the competitive environment under the WTO regime other than price manipulation of the rival exporters of rice. India should stay at its zero import duty position on rice.

Rani, Pooja (2015): in this paper "A Study of WTO and Agriculture Sector in India" they have explained the global trade that how it is well connected. What they have found regarding WTO and India is that after engaging with WTO India has increased its domestic production and export of agricultural product and it has been helpful in increasing employment level of the country in agricultural sector. According to them Indian agricultural growth will take



momentum in the coming future as investments are taking place in agricultural infrastructure in the country.

Deepika MG(2005): In her theses named “**CHANGING TRADE SCENARIO IN AGRICULTURE AND ITS IMPLICATIONS FOR THE INDIAN ECONOMY**” she wanted to express that tough trade liberalisation assumed a special significance in the context of economic reforms in the late eighties and early nineties in India, they were not directly made applicable to the agricultural sector due to its unique characteristics.

Hedayat Hosseinzadeh(2008): The main object of his research was to examine the economic effects of Globalization and the trade openness on Iran's agricultural sector. He reviewed the agricultural exports and imports policies in Iran during the period from 1980 to 2004. He surveyed the impact of economic liberalization and privatization policy on the performance of agricultural export and import during 1980-2004. He studied the future prospects of agricultural products, exports and imports.

K.B.Umesh, Akshara M., Shripad Bhat, Harish Kumar.K., Srinivasan, S.M.(Beijing 2009) :

In 2009 these people have worked together for presenting paper in Economists Conference, Beijing, China, August 16-22, 2009 on the topic “**Performance Analysis of Production and Trade of Indian Silk under WTO Regime**” where they have showed that India is the second largest producer of silk and also the largest consumer of silk in the world having a strong tradition bound domestic market. In this paper, they estimated growth functions for India's aggregate production and trade parameters using annual data from 1984/85 to 2006/07.

Andre M. Nassar, Diego Ures (2009): In their IFPRI Discussion paper named “**Brazil: Shadow WTO Agricultural Domestic Support Notifications**” where they has argued that Brazil is presenting itself as being in a comfortable position with respect to domestic support in the Doha Round negotiations, and our analysis confirms this position. New rules are necessary to guarantee that policies oriented to create demand for biofuels will not jeopardize world agricultural markets. WTO rules, however, must be improved in order to capture the specific situations of biofuels, which are not the same as other agricultural commodities.

Veeramani C (2007): Mr. Veeramani in his paper titled “Sources of India's export growth in pre and post reform period” have discussed about the export performance and growth during the pre(1950-90) & post WTO period(1991-2005) and found more volatility or fluctuations but speedy performance in the Post WTO period.

M.Ranga & D. Sharma (2014): in their paper “**WTO and Indian Agriculture**” showed that if aspects there exists no real insecurity, related to WTO norms (like market access, domestic support , export subsidy, removal of tariff, provisions related to IPR, non tariff barriers etc) be dealt with good vigilance there exists no real threats or insecurity on agricultural trade.

Renuka Mahadevan(2003): In her paper named “**PRODUCTIVITY GROWTH IN INDIAN AGRICULTURE:THE ROLE OF GLOBALIZATION AND ECONOMIC REFORM**” she has explained that although India missed the opportunity to open up two decades ago, its attempts to do so now must be regarded as better late than never. Having realized that globalization is a necessary but not a sufficient condition for high growth production, India has undertaken economic reforms, both internal and external.



Bhowmik, Debesh(2006): In his paper titled “WTO and Agreement on Agriculture” Mr. Bhowmick expressed concerns about the consequences and implications of WTO and particularly AOA on Indian Farmers. He said these contents like Plant variety act of TRIPS Under WTO may reduce the rights of the Indian farmers and there remains a gap between the rich and the poor countries in implementations of WTO norms and severe inequality in their impact on society.

Mithilesh Kumar (2006): In his work titled “TEMPORAL CHANGES IN DAIRY INDUSTRY IN INDIA” he has explained that the dairy sector occupies a dominant place in providing food, income, employment and foreign exchange to the Indian economy. The positive trend in export and negative trend in imports was observed due to the successful implementation of Operation Flood and set of Government policies regarding international trade.

Nitin Vinod Datta(2005): In his paper “Prospects of the Uruguay Round Agreement on Agriculture and the Reality of its Impact on Indian Agricultural Trade” he showed that inconsistencies within the developed countries agenda concerning agricultural liberalization have stalled the progress of the process at least until the next trade round. It seems that developed countries only concede when it is convenient and have protected themselves exclusively at times through the use of such measures as the ‘special safeguard’ provision and the ‘peace clause’.

Bauria and Chakaborty (2004) – In their paper of Impact of WTO regime on Indian Agriculture, Bauria & Chakaborty studied & analysed various aspects and contents of **WTO like SPS, TBT, GI, TRIPS etc** and concluded that India’s export has revamped and increased in Post WTO period

Alex F. McCalla and John Nash (2007): In their edited book titled “**Reforming Agricultural Trade for Developing Countries**” they have expressed their view in the process of trade reform in liberalised trade regime of international agricultural trade under the WTO of Developing countries and expressed their concern about the implications of WTO regime on these countries.

Peter M. Rosset(2004) : According to him the three basic pillars of AOA are I) Market access ii) Export subsidy iii) Domestic support. He showed a lot in the media about “trade wars” between the U.S. and Europe, about steel quotas and cotton subsidies, and about how dissatisfied poor countries are with global trade rules.

R S Deshpande, J Prachitha

(2005): These persons have put forward impacts of WTO policies on the Indian state of Karnataka, where according to their study the cell recommends that India’s concern on food security, rural employment and need to protect the environment should not be neglected in a purely market-oriented approach. They argued that it is necessary to adopt market-friendly approach without government support.

Ashok Gulati and A. Sharma (1994): Both of these two authors have explained the upcoming situation of Indian agriculture under the WTO regime. According to them Indian agriculture will not gain much in the open trade environment under the free trade regime of WTO.



1.5: Impact of the WTO Regime on Indian Agricultural Commodities

The formation of the WTO was an important achievement in the history of international trade. All the countries realized that institutional framework like WTO was much needed when they were liberalizing their trade.

Different wings of WTO In Part of Agricultural Trade

- **Agreement on Agriculture(AOA)**
- **Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS)**
- **Agreement on Trade Related Investment Measures(TRIMS)**
- **Agreement on Textiles and Clothing(ATC)**
- **Agreement on the application of sanitary and Phytosanitary measures(SPS)**
- **Agreement on Technical Barriers to Trade**
- **Agreement on Geographical Indication Act.**
- **Agreement on UN Convention on Bio-Diversity (CBD).**

Out of these agreements AOA perhaps the most important international agreement under WTO regime.

Agreement on Agriculture: The AOA is based on,

- **Market access**
- **Domestic Support Mechanism**
- **Export Subsidies**

The WTO Agreement on Agriculture (AOA) which has been affected since January 1995 was a multilateral trade negotiation arrangement and one of a major part of the Uruguay Round Agreement in 1994 (The Uruguay Round had been carrying since 1986 to 1994). As per the rules of AOA and WTO Developing countries like India has agreed to maintain maximum amount of domestic Subsidies under 10% on Total domestic Production and don't want to bring it to zero level, at the same time India has agreed to eliminate all kind of QRs, Import /export license system, removing various other barriers to trade like Tariff & quotas, Non-tariff barriers like anti-Dumping measures etc. The Uruguay Round agreement of GATT (1986-1994) ended with formation of WTO (1st January 1995) which was the only international institution to endorse, maintain & ensure free & fair multilateral global trade among all nations. The AOA which is the content of WTO emerged after the Uruguay round of agricultural trade negotiations based on three major pillars, these are,

Market Access:

Market Access can be broadly classified into three Parts. Like

- (a) **Conversion of all non-tariff import restrictions into tariffs: Tariffication**
- (b) **All agricultural tariffs are required to be bound.**
- (c) **After binding the tariff it is gradually reduced over a period of several years.**

Market access enables countries to liberalise and expand international trade. It means to what extent a country or a group of countries under economic union is ready to open its market for the foreign countries to access domestic market and consumers.



Domestic Support: The **Domestic support which** is differentiated by the WTO in three different categories (1) **green Box**, (2) **Blue Box**, (3) **Amber Box subsidies**, is different from domestic subsidy system of annual subsidy or financial help to the farmers, agricultural producers, trader, exporters etc by the government either in specific agricultural area or in agricultural marketing or infrastructural development etc

Export Subsidies: It has been found that **Export subsidies** by National's government are mostly **Trade distorting**, creating inequalities in competition of Export/import, reasons for farmers Distresses among developing countries and hindrance to sustainable development of free & fair multilateral trading system. So according to WTO it must be eliminated completely or should be reduced substantially to a very low amount. The amount also has been fixed by the WTO itself which is 36% for developed countries within 5 years and 24% for developing countries over 10 years based on the 1986-90 base period.

1.6: Various Trade Negotiations under WTO and India's role on them.

- (a) **The market Access:** Market Access is one of the most crucial and obligatory proposal emerged in Uruguay round negotiation between member countries. The WTO proposed in this content that at least 3% access of domestic market is under binding treaty which is called MCA (minimum compulsory access) which will no way disturb domestic agricultural production, will not influence on the Governments of the countries to cut down domestic subsidies or farmers to stop sharing or preserving Seeds, rather it will help countries to conduct R & D on national agricultural sectors overall development. India being a committed country to international free & fair trade agreed to the MCA clause of WTO.
- (b) **Domestic Subsidy Reduction:** The AOA norms suggest gradual reduction of domestic subsidies to the agricultural sector including farmers within 10 years of time bound for developing countries. But Indian agriculture not only suffers from domestic infrastructural & Institutional bottleneck but at the same time as its agricultural sector is not mainly commercialised in character rather mostly subsistence type that is why it is not very much encouraging for India to accept AOA norms which better fit with the agricultural structure which is commercialised in nature. That is why India has been negotiating on domestic farm support & subsidies to the farmers with the WTO.
- (c) **Boosting Domestic Agricultural Output:** From the previous experiences of international fluctuations & volatility of price and its implications on domestic economy & people India has decided to increase its domestic production to a high limit and make itself ready for highly competitive price regime and less dependency on foreign supply of agricultural produces. For this India proposed domestic support clause to the Doha Round summit & maintaining De minimis level which was later approved by WTO.
- (d) **Revamping Indian Agricultural Exports:** India wants to revamp its export in this liberalised trading environment and thereby boosting its economy. As after reduction of domestic subsidies the demand for agricultural produces like Rice, Spices, Pulses, Cotton etc from Developed countries like Japan, South Korea, USA, EU would rise from India as India has comparative advantage in producing these commoditisers at cheaper price domestically. That is why India has proposed for easy market access to these countries at the same time it has given assurance to maintain International safety and standard like SPS measures at home producing & delivering these commodities and more others.
- (e) **New Patent law under AOA and India:** One of the main content of AOA is new IPR (intellectual property regime) called TRIPS which enables new Patent policy of patenting new inventions in agricultural, Biotechnological, and seeds sector and for that the Govt. of India has to reform all its existing rules related to these things. The new patent regimes ensure whole & sole control on seeds by the patent owner. But the Nature of Indian agricultural system is traditional & Government of India is the owner of R & D related thing on Biotech research since Independence and committed to deliver & transfer of new invention to the communities without any conditions but this new patent act by the WTO



might endangered the above said provision that is why Govt. of India wanted negotiations with the WTO for farmers Rights on seed and food security related Issues.

- (f) **WTO has widened the right to Use Seeds:** The seeds acts provisions under the TRIPS were frightening for Indian poor farmers and many other parts of the world's developing countries farmers, as it said there will be no provision for saving, exchanging and improving by anyone other than the patent owner of the variety of seed, but later on WTO assured countries that the farmers have all traditional rights on exchanging seeds and varieties of it as this clause was taken back by WTO for renegotiation on this for the sake of poorer communities of the world.
- (g) **Public Distributive measures & AOA :** Many developing countries including India has opposed contents of AOA which suggests complete eliminations of subsidies but the WTO clarified its statements by saying that the social security issue of any individual country is completely its national priority and AOA & WTO will not intervene in these domestic arrangements and at the same time countries can give protections in social security's to its farmers, poorer communities and citizens through PDS (public distribution system for).
- (h) **The reduction of subsidies under WTO and India:** India since Independence is maintain low domestic farm support but the clauses of WTO & AOA to cut down domestic subsidies on every aspects of agricultural sector have spread fear & anxiety among Indian farmers for loosing fertiliser & electric subsidies as most of the cultivators are subsistence type and indebted by birth so if the Government removes its hand completely from agricultural support they will no longer able to compete and continue agricultural process in this new global order. That is why agriculturists of India resisted this bill and asked the Government to refuse to the WTO to implement it In India as this will enable MNCs to control inputs prices and only rich farmers will survive in this regime.

1.6: Changes occurred in Indian Agricultural trade after Signing in WTO and agricultural trade policy liberalization (Liberalisation of Indian Agricultural trade and Imports - Exports after reducing the QRs)

Though the policy of import liberalization of Agricultural commodities started in the early 90s but it took faster move in the mid 90s after some major initiatives were taken at that time and liberalization policies were much intensified in the early 2000 since the exim policy. The govt. of India took initiative in export liberalization in agriculture, for example the establishing of export promoting zones, making schemes like ASIDE (Assistance to States for Infrastructure Development and Exports) and SLEPC, establishing Export promotional councils, removing restrictions on export of all cultivated varieties of seeds & pulses shows governments initiative in liberalizing export. The govt. of India showed its obligations to WTO by cutting down quantitative restrictions on most major agricultural commodity imports other than to those commodity imports which are hazardous to human health or environment. Following data shows how Indian market gradually became open to foreign imports of agricultural commodities.

Table: 1. 1: Percentage Change In Licensing of Indian Agricultural commodities

Year	Restricted	Prohibited	Canalised	Free
95-96	65	5	10	20
97-98	60	3	10	27
98-99	54	3	12	31
2000-2001	37	3	2	58
2002-2003	22	1	2	75

Agricultural Commodities	Current Condition of Trading	Year of Delicensing or Decanalised
Pulses	Free	1980
Cotton	Free	1991
Rubber	Free	1991
Sugar	Free	1994
Palm Oil	Free	1994
Skimmed Milk & Butter	Free	1995
Edible Oil	Free	1995
Edible Oil Seeds & Castor bean Oil	Free	1999
Wheat	Tariff rates levied STE (Import through FCI)	2000
Rice	Tariff rates levied STE (Import through FCI)	2000
Milk	Free	2000
Tobacco	Free	2000
Tea	Free	2001
Coffee	Free	2001
Coconut	Free	2001
Cashew & Indian Silk	Free	2001
Soya bean & Ground Nut Oil	Free	2002

Source: Ministry of Commerce, Govt. of India.

Table 1.1 and 1.2 shows the status of Indian agricultural trade policy in the early 2000 and so on after removal of QRs and delicensing and decanalisation of many major agricultural commodities. The current status of Agricultural trade policy of India in Indian Agricultural Commodity trading of various agricultural commodities after removal of quantitative restrictions of tariff and non tariff barriers gradually independently. It also shows the current position of production of these commodities in the world level.

Figure: 1.1: Percentage of Tariff levied on Gradual Reduction on Indian Agricultural Commodities explained graphically.

As per the WTO and AOA norms India gradually tapered the tariff rates. Some time India has drastically reduced (77% in 1996, 70% in 2000, 74% in 2002) the tariff. Study by Gulati & others show that India has not only reduced the tariff barriers but non tariff barriers were also reduced by converting it into tariff barrier first.

Table 1.3: Changes in the Composition of Market Share in Indian agricultural Commodity trade with Liberalisation of Export in the Pre and post WTO regime:

Agricultural Commodities	Year	Market share of India in world Export (Average)
Rice	1986-1995	4.22
Sugar	1986-1995	1.16
Ground Nuts	1986-1995	3.50
Rice	1996-2016	17.25
Sugar	1996-2016	1.68
Ground Nuts	1996-2016	15.21

Source: FAO statistics

In the above table the data itself reflects that market share of India in the world export has increased by multiple times after liberalization and WTO.

Table 1.4: Percentage Change in the composition of Market Share in Indian Agricultural Commodity trade with Liberalization of Import in the Pre & Post WTO regime:

Agricultural Commodities	Year (Pre WTO)	Market share of India in world Imports (Average)	Year(Post WTO)	Market share of India in world Imports (Average)
Sugar	1986-1995	3.81	1996-2016	2.28

Coffee	2.03	2.83	00	0.02
Tea	19.47	13.98	00	0.18
Sugar	1.16	1.08	4.28	2.63
Cashew nuts	51.42	53.64	00	18.63
Ground Nuts	3.57	7.91	00	00
Cake of Ground Nuts	39.12	36.36	00	00
Oil of Linseed	00	00	0.42	0.38
Cake of Rapeseed	11.68	20.28	00	00
Oil of Rapeseed	00	00	0.25	8.53
Sesame Seed	5.46	12.29	00	00
Cake of Coconuts	0.15	0.02	00	00
Onion	10.73	10.36	00	00
Potato	0.07	0.23	00	00
Apple	0.13	0.17	00	00
Banana	00	00	00	00
Paper	6.56	6.99	0.44	1.02
Rubber	00	0.01	1.21	0.44
Cotton	1.86	2.27	0.14	0.92
Jute	3.59	1.94	5.74	16.82
Tobacco	5.22	4.65	0.01	0.03
Ginger	83.27	67.27	1.96	4.64

Onion	0.84	0.09	0.78	0.33
Potato	0.93	0.33	0.45	0.13
Apple	2.03	0.36	1.63	0.25
Banana	0.51	0.44	0.33	0.10
Pepper	1.04	0.08	1.03	0.11
Rubber	1.28	0.34	1.34	0.58
Cotton	0.77	0.18	0.77	0.18
Jute	1.81	1.67	1.14	0.31
Tobacco	0.30	0.06	0.40	0.04
Soya bean	0.92	0.15	1.27	0.36
Cake of Soya bean	0.97	0.06	1.19	0.34

Sugarcane	3.1	1.3	0.4	0.3	0.7	0.5
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Source: Ministry Of Agriculture, Govt. of India 2015-16.

From the above table we can see other than Wheat, rice and sugar growth rates of other major agricultural commodities has shown positive trends including jawar, Bajra, Maize, Coarse Cereals, Pulses, Oil Seeds, Cotton etc in the Post WTO period.

Table 1.8: Compound Annual Growth Rate of Selected Agricultural Commodities in Pre and Post WTO Period

Commodities	Pre-WTO Period 1986-95	Post-WTO Period 1996-2016
	Value	Value
Tea	-15.0	6.8
Coffee	24.2	5.5
Rice	10.5	8.7
Cotton	44.5	31.1
Tobacco	13.7	12.1
Cashew	12.3	5.9
Spices	10.5	16.5
Oil meal	13.9	8.1
Fruits &Vegetables	4.0	13.5
Processed Fruits, juices items.	0.7	9.5
Marine Products	20.4	8.0
Sugar	1.3	17.0
Meat	13.28	20.2

Source: RBI, Handbook of statistics on Indian Economy

From the above table 1.8 it is visible that Compound Growth Rates of Exports of major Indian Agricultural trading Commodities including Tea, Meat & meat products, Spices, Horticulture Crops including Fruits & vegetables and Sugar, has gone up, where of coffee, Oil meals, Marine products, Cotton & onion has gone down during this period.

Table 1.9: Compound annual Growth Rates of Exports of major agricultural trading Commodities in India.

Major agricultural Commodities	Pre WTO	Post WTO	Major Change
	1986-1995	1996-2016	
Coffee	12.9	6.1	Negative
Tea	9.1	6.4	Negative
Tobacco	7.4	13.1	positive
Cashew	12.3	6.3	Negative
Spices	11.8	16.3	Positive
Sugar	-0.6	22.4	Positive
Fish	18	8.3	Negative
Fruits & Vegetables	6.5	18.5	Positive
Rice	-7.1	8.5	Positive



Wheat	24.9	4.2	Negative
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Source: Ministry Of Agriculture, G.O.I.

In table 1.9 we can see the major Indian agricultural trading commodities like Tobacco, Spices, Sugar, Rice, Fruits & vegetables have shown much higher growth rates in Post WTO period and Tea, Coffee, Cashew nuts, Fish, Wheat have shown lower growth momentum in post WTO period as compared to Pre WTO period.

Table 1.10: Comparison of Pre & Post WTO period in Average Annual Growth Rates of Major Indian Agricultural Commodities in Yields per Hectare:

Agricultural Commodities	<u>Pre Liberalisation Period 1981-1991</u>	<u>Early Liberalisation Period 1991-1997</u>	<u>Post 1998-2004</u>	<u>Liberalisation 2005-2011</u>	<u>Period 2012-2017</u>
Wheat	3.6	2.8	0.7	-0.3	3.0
Rice	3.0	1.4	2.1	1.2	2.2
Jowar	3.2	1.3	0.2	2.1	3.1
Bajra	8.8	6.2	4.9	7.3	8.4
Maize	4.1	2.6	3.1	-0.2	6.5
Coarse Cereals	3.1	4.3	1.3	1.7	7.3
Pulses	2.3	1.9	-0.3	0.6	2.7
Oilseeds	4.8	3.3	0.4	3.5	5.4
Cotton	5.3	3.1	-6.2	19.4	3.9
Sugarcane	1.3	0.4	0.3	0.7	0.5
Crops & Livestocks	3.3	3.3	2.6	2.5	3.8

Source: Ministry Of Agriculture, G.O.I.

In table 1.10 growth rates in (gross value of output) yield per hector of major Indian agricultural commodities has been forecasted with Comparison has been made between Pre & Post WTO eras. The major finding is 1. Growth of output in Crops & livestock's has been found much higher in Post WTO period as compare to Pre WTO period (example- Particularly 11th five year plan the growth rate was 3.8 % average per annum). 2. Food grains, Oil seeds, Fibers grew much faster than expectation in the post WTO period from Pre WTO period. But Growth of Forestry was much slower.

Export Performance of Indian Major Agricultural Commodities in the Last Few Years

Table 1.11 Quantity: in Million Tones

Year	Wise	Total Quantity	Money Value ((Rupees in Crores)
2010-11	Export Performance Of Major Indian Agricultural Trading Commodities	1,15,67,563.11	42,437.45
2011-12		1,98,10,216.80	83,485.29
2012-13		3,01,72,968.00	1,18,254.78
2013-14		3,00,01,358.04	1,36,920.07

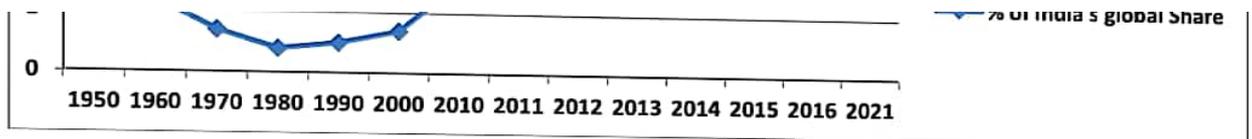
Source: Ministry of Commerce & Industry, G.O.I.

Table 1.11 shows that Export in agricultural commodities in India during the year 2010-11 to 2014-15. The agricultural commodities exports of India were increased to Rs 1,36,920.07 crore in 2013-14 from Rs 42,437.45 crore in the year 2010-11. Which shows Export Growth rates of agricultural commodities were high in India after 2012-13. India has become a good food grain exporter today as compare to pre WTO period.

Table 1.12: A Comparison of Indian agricultural Export Performance in all Agricultural Commodities (Money Value is expressed in US Dollar in millions).

Agricultural Commodities with High/Moderate Export Growth taken place during the last two decades	Agricultural Commodities with High/Moderate Import Growth taken place during the last two decades	Agricultural Commodities with reducing Export Growth taken place during the last two decades	Agricultural Commodities with declining Import Growth taken place during the last two decades
Rice, Groundnuts, Tobacco, Cake of Soyabean, Potato, Banana, Ginger, Cashew and Pepper	Wheat, Sugar, Edible oils, Jute, Ginger, Tobacco	Onions, Tea, Wheat, Cake of Groundnuts, Cake of rapeseed, Cake of sesame, Cotton	Rice, Rubber and Linseed oil

Year Wise Comparison Of Indian Agricultural Export.	Total Agricultural Export of all Agricultural trading Commodities	Unit value Based Index (1993-94)	Export Of Agricultural Commodities	Index of Export (Base 1994-95)
<i>Pre WTO</i>				
1980-81	7885	23	34283	31
1984-85	9645	36	26793	38
1987-88	9883	41	24104	95
1990-91	18145	62	29266	116
1992-93	18537	89	20828	82
1994-95	26331	104	25318	100

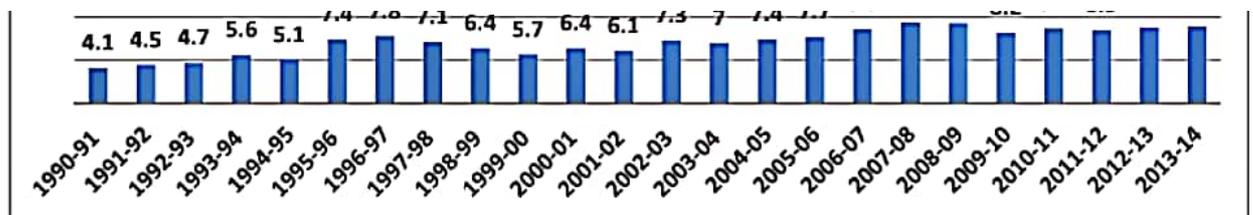


The above graph shows Percentage of India's Share in agricultural export globally

If we compare Pre & Post WTO era on percentage share of Indian Agricultural export on decadal basis we can see from the above table 17 that though initially after independence India's share was 2% in the global export but gradually it declined and became less than 0.5% in the pre WTO period but it rose sharply in the Post WTO regime to 1.5 % in the 11th five years plan.

Table: 1.14: Latest Agricultural Export & Import of India of 2017 (in US\$ million)

Agricultural Commodities	Value of Export 2017	Agricultural Commodities	Value of Import 2017
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Source: RBI, Handbook of Statistics on Indian Economy

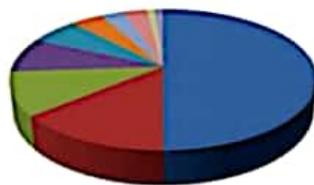
In the above table we can notice that the share of Indian agricultural export to total agricultural GDP in the Post WTO period was comparatively higher than that of the Pre WTO period. This is a clear signal that Indian agricultural production has been commercialised in a intense manner in the Post WTO period and its shift to the market orientation of character of it also noticeable in this period.

Figure: 1.5: Indian Agricultural Exports as percentage to Total Exports in the Pre & Post WTO periods

10,61,153.44
9,15,062.75
9,88,182.51
22,88,992.11
14,70,638.41
20,01,497.74
20,92,122.73
1545378.53

20,92,122.73
61,19,907.23
39,80,849.06
60,10,199.87
34,00,436.16
47,33,808.13
75,04,857.93
1,15,33,053.00
1,19,16,945.49
1,19,60,591.93
1,03,94,825.88
1,05,29,404.61
1,54,28,409.71
1,31,48,884.31
1,12,55,522.03
1,15,67,531.24
1,98,10,171.89
3,01,72,963.87
3,00,01,581.50
2,71,34,311.45
2,04,69,770.49
2,12,71,453.91

Share of Highest Imported Commodities in Total agri-Import in 2015-16



- Vegetables 50%
- Pulses 14%
- Wood & Wood Products 10%
- Fresh Fruits 8%
- Cashew 6%

Source: CSO Based data.

Table: 1.16: Year Wise Percentage share of India's Agricultural export and Value (expressed in US\$ million) of Indian Agricultural Exports in the Global level in the Pre & Post WTO era.

Year Wise	The percentage Share of Indian Agricultural exports in the World	Post-WTO	The percentage Share of Indian Agricultural exports in the World
Pre-WTO		1995	1.0
1990	0.80	1996	1.18
1991	0.80	1997	1.16
1992	0.82	1998	1.11

helped India to gain market share in the world level also.

Table: 1.17: The Average Values (In US \$ Million) of Major Indian Agricultural Commodity Exports (in the Pre & Post WTO period in every Triennium wise) to different countries

	1989-92	1993-95	1996-98	1999-2001	2002-04	2005- 07	2008-10	2015-2017
Total Export of Major Indian Agricultural Commodities	3,136.5	3,796.47	6915.93	5871.9	6714.76	10457.3	17900.3	
1. Tea	546.2	328.53	382.36	447.26	352.73	411.93	570.1	740.55
2. Coffee	161.26	213.03	435.86	333.73	223.76	343.93	461.26	574.11
3. Rice	273.3	377	1055.4	952.03	925.83	1488.8	2573.1	6186.30
4. Cotton	224.06	105.23	241.8	38.47	74.83	699.93	1611.76	3001.45
5. Tobacco	134.93	130.6	211.6	201.23	206.46	317.4	716	912.5

Major Indian Agricultural Comr

1993-95	1996-98	1999-2001
8.65	5.52	7.61
5.70	6.30	5.68
9.93	15.26	16.21
2.77	3.49	0.65
3.44	3.05	3.42
8.69	5.35	7.97
4.49	4.60	6.52
16.21	12.58	7.30
3.32	2.31	2.61
2.49	3.59	3.71
22.3	16.13	20.52
1.74	2.52	0.71
2.89	2.91	3.96

1 Economy

export share (in percent) of
O period as compare to the Pre
& Fruits products have shown p
iod.

Country wise Annual Compound C e and Post WTO Period

Pre WTO Era (1989-90-1995-96)
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Source: RBI, Handbook of statistics on Indian Economy

The above table shows other than some Agricultural export commodities like Meat, Fruits & Fruits Products, and Spices the CAGR of all other traditional Indian agricultural Commodity's have gone down during the Post WTO period.

1.7: The Overall Impact of WTO on Indian Agricultural Commodity Trade: The overall impact of WTO on Indian Agricultural Trade is somehow positive, in the sense that the share of Indian agricultural export has increased tremendously (about 2.06% in 2011 and it has become one of the biggest exporter among the few leading exporting countries) in the post WTO period for example Meat & meat products, Spices, Tobacco, Fruits & Fruits Products, and several horticulture products, where some commodities registered higher growth rate of export in the Post WTO period than the Pre WTO one, some other commodities are there which have registered comparatively less growth rate in export in the Post WTO period than the Pre WTO period for example .The year 1997- 2001 shows a clear fall in the growth rate of export of agricultural commodities, sometimes the growth rate registered very poor marking; sometimes even negative growth rate was registered. The reason of this was Restrictions on world agricultural export, tariff & Non- Tariff Barriers on some of the major agricultural export like Rice, Wheat etc. With some positive indication i.e. growth in export of some of the major agricultural commodities like sugar, cotton, Spices, Meat , Oil Seeds and fruits & Vegetables the Indian agricultural export registered 12.39% growth which is higher in a small amount than the previous year's growth which was 10%. This was because at this time share of growth of manufacturing in GDP was much higher than Agriculture. The character of Indian agricultural export has gone through considerable change in the post WTO period as compare to the Pre WTO period where some product has shown Growth in export rate, some has mixed trend where some showed sheer decline. The major export destinations of Indian agro-produces are Bangladesh, Thailand, Japan, Malaysia, Singapore, UAE, Indonesia, EU, Saudi Arabia & the US. In the Post WTO era the average value of the total export might have increased but the percentage share decline as compare to the Pre WTO period. During the four consecutive years Indian 2010, 11, 12, 13 Indian agricultural exports experienced much Diversification which was proven to be beneficial for the agri-export. In the Post WTO era the major agricultural commodities which have shown high comparative advantage and export growth was, Rice, Meat, Jute, Spices, Sugar, Cotton , Fruits & vegetables while those have not include Tea, Coffee, ,marine products, Tobacco etc. The products which have shown higher amount of Export Diversification in the Post WTO era particularly in 2010,11, 12, 13 was Cashew, Rice, Spices, Processed foods, Tobacco & fish & fish products. However the promise made by the WTO & AOA is seems to be non matching with the aftermath reality of the Post WTO period as the AOA regime apprehended that liberalisation of Agricultural trade would increase the demand of agricultural commodities of the developing countries and there by the price of those commodities would rise in the Post WTO era but the opposite thing has happened the price of most of the major agricultural trading commodities of India has fall down during the post WTO period which have given a blow to the domestic exporters. This was one among big reasons for falling of export during the Post WTO period. The reason behind this was huge domestic support and export subsidies provided by the developed countries to their agricultural sector. And as a result of this price fall the agricultural importing countries have profited a lot where exporters like India have faced sheer loss during this period. The major causes of the fall of export growth during the Post WTO era as compare to the Pre WTO era was (1) Breaking the promises by the Developed countries to reduce domestic subsidies (Blue box, Green Box, Amber Box) which led the International price of major agricultural commodities to fall. (2) The WTO has some where failed to protect developing nations from fall in their export due to price fall and influencing developed countries to reduce trade distorting subsidies, (3) Other than the AOA issues India also suffers from lack of agricultural development domestically. Apart from institutional and infrastructural backwardness and underdeveloped market mechanism lack of modern scientific management, mishandling, not accustomed in using of new technologies in agriculture, poor infrastructure which damages to the crops, low productivity and poor value addition of the raw & processed products, lack of diversity in agro produces, lack in quality standard to meet international level and lack of R & D & use of modern Biotechnology are among the major reason for fall in export in the post WTO regime when surge



in food products took place throughout the world but India fails to meet the newly emerged world order and advanced market expectations.

1.8: Stringent difficulties before India's Export Trade:

A number of reasons are responsible for India's declining performance in the trade of Agricultural export. This is discussed in the following Points

- AOA was suppose to back the Developing nations in the free trade competition with commitment to reduce tariff & Non Tariff barriers, Cut down domestic support in form of Subsidy , facilitated greater market access.
- India & Most of the developing nations lack of proper infrastructure to meet the norms like SPS & TBT measures.
- India & Most developing nations lack investment in Biotechnological R &D and implementation.
- India & Most developing nations lack Scientific & coherent management system for handling raw produce.
- India and most developing nations fail to strike balance between new free trade norms and domestic policy which denies sustainable growth.
- The high price of raw materials in case of fruits & vegetables affects the food processing industry. Lack of variety & kind and at larger quantity & constant supply i.e. industrial production of raw material do not at all places occur to India.
- India lags behind in producing quality raw material as compare to the developed countries, as result, the processing units also are not able to be utilized to the full capacity. The developed nations put tough challenge in front of India in respect of high quality production of raw materials.
- India lags behind in making management and marketing strategy which can ensure a stable export market for processed foods.
- Poor infrastructure in terms of lack of power and water supplies to the Industries, poor connectivity, dearth of large vehicles or goods carriers, insufficient post harvest management program, short of cold storage facilities, poor quality packaging procedure, not using Bio-degradable materials which don't go in accordance with the demand of the importing countries-is one of the major reason for the poor performance of India in export trading.
- Last but not the least countries of North America, Asia, & Europe have raised various trade barriers which act as a stumbling block in the way of India's export trade of agricultural products.

1.9: Summery & Conclusion:

A comparative study of India's export and import trade in agricultural products and produces in Post & Pre WTO era sheds light on some of the important findings. The export & import of some produces and products have increased where as some have decreased and some have shown stability. In Post WTO era, other than some commodities like Cashew nut, wheat etc principle commodities have shown improvement in export growth rate. And in case of Import other than some commodities like edible oil & Cashew nuts many other commodities indicate positive growth rate. Insofar as percentage share of contribution in export in the post WTO era is concerned, though the export of sugar, juices, Processed foods, Tobacco, Spices, Fruits & vegetables and Rice has increased, most other commodities have decreased where as Meat, raw cotton etc have remained same in the contribution to the percentage share as Pre WTO era.

Now in so far percentage share index in import is concerned other than the commodities like edible oil, Bulk Consumption of good have increased which contributed to the increase percentage share. In the export of Tea, in Post WTO period countries like US, UAE, Kazakhstan, Iran have increased, Poland , Russia, Germany have decreased and UK & Japan maintained the same as in the pre WTO era. In case of Coffee Italy and Belgium have increased and Germany, USA, Russia, Netherland have decreased where as UK, Switzerland Latvia maintained importing as before. As Indian marine products are concerned, In



countries like Thailand, Indonesia, Malaysia, Spain, Italy, China, Taiwan export has increased : UK remained same as before: USA, Japan and UAE has decreased in import. In the field of oil meals Vietnam, Japan, Bangladesh, Pakistan have increased import from India: Sri Lanka have shown stability where as South Korea, Russia, Thailand, Singapore and Indonesia have decreased. As export of India's rice is concerned, rice export in Belgium, Italy, Yemen, UAE, and Kuwait has increased: In Singapore Share percentage remained as before where as In France, South Africa, Bangladesh, Saudi Arabia, USA, UK has decreased. In Case of Spices Sri Lanka has increased importing Spice from India: USA, Spain, UK, Japan has imported Spice in comparatively of less value and Saudi Arab , Germany, UAE, Singapore , Bangladesh imported in the same amount before. In the Post WTO era India has increased export of Tobacco in Netherlands, UAE and Belgium: where as India's export has decreased in countries like UK, USA, Singapore, Germany and Saudi Arabia. The other countries have been the most reliable and stable as a Group in both the Pre & Post WTO period to import Indian Tobacco. India has witnessed a clear shift in the mode of production & consumption of the agricultural product in their post WTO period. A new trend in consuming high valued agricultural commodities rather than traditional commodities that struck the World in the Post WTO era didn't leave India Unaffected. Therefore trade in high valued products like fruits & fruit Juice, Eggs, Fishery Items, Marine Products , Meat & Meat Products , Milk & dairy Products , Vegetables replaced the Ex[ort of Wheat, Rice, Gram ,Pulse, Sugar, Tea, Tobacco, Coffee etc. After 2001c this trend has sped up. By increasing quality and food safety measures India has huge potentiality for the agricultural trade in the domestic market with huge demand and at the same time strike a tough competition as a global player in the international arena.

Recommendations:

During WTO period India has achieved increased world market share for some Agricultural commodity export but failed to achieve export market share and growth in export for many other commodities. In the following we have put forwarded some recommendations in this respect.

- (1) Promoting Public-private partnership to the effect of inviting more investment in the infrastructural development to achieve an integrated system covering the entire procedure involving processed food beginning with production to processing to packaging to marketing . More Integrated domestic market leads to more effective global competition.
- (2) Post WTO agriculture features Bio-technological trend which requires mass educations and training at the grassroots level so that crop growers are aware of the latest techniques and the benefits.
- (3) The Governments both at state and at the centre should develop harmonized policy to back the regional exporters to promote agricultural export surplus. There should be provision of funds to the small regional exporters to encourage more export.
- (4) Effective policy for better implementation of SPS and TBT measures, ensuring effective functioning of Codex standards to guarantee food safety for both domestic and global market: Compulsory education of SPS for the farmers and food processing factory owners is necessary.
- (5) Government should venture into forging policy to bring about new trend of contract and corporate farming and association of farmers should be motivated to Grow crops with the view to marketing both at regional and global level. Their procedure includes creation of and driving to SHGs for farming, nurturing crops, production of seeds etc.
- (6) Following the shifting trend in the Post WTO period in the consumption of Food Govt. should make policies toward production of more high value produces than traditional commodities.
- (7) Diversifying crop production and experimenting with Production of more cash crops regarded as high value crop through Horticulture, Floriculture etc and also livestock rearing, Fishery, herbal and medicinal plants can open up new opportunities.
- (8) Development of basic infrastructure fir agriculture has been shaped into agri-trade industry after WTO is imperative. Development of road way & connectivity, transportation heavy goods carrier, supply of water & electricity are must.



- (9) Effective market strategy should be prepared to boost up India's trade both import & export with age old trading partners like CIS countries, African Nations, USA, EU and south Asian countries.
- (10) Biotechnological R & D in the field of agriculture can bring about revolution in agri-trade because it propagates low cost and high yielding productivity. So effective policy should be taken to inspire Public-private partnership in establishing more research institute. India's rank is third in Asia Pacific so far as patent filing is concerned and India is one among the top most five countries that undertake R & D in agriculture. There should be maximum and strategic utilization of low cost physical force, Intellectual & Biological resources to the effect of cost effective production.
- (11) Government should take step toward crop insurance starting from the production to the last step of export. The banks of the country should come forward in this regard. The ministry of agriculture with APEDA and EXIM Bank should make provision for easy credit for Agriculture to promote export.
- (12) For technical help & guidelines Farm Export Promotion Cell should be opened to provide aid to the Farmers & Exporters in every Agricultural Export promoting Zones. This kind of service should be provided in every state.

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