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Production of Major Crops in Haryana

Dr. Parveen Kumar

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Government College Jatusana, Rewari, Haryana

Abstract

Agriculture sector plays an important role in the development of the economy. It uplift the socio-economic status of weaker sections of society. India is the second largest producer of wheat and rice. India is currently the second largest producer of agricultural produce. 54.6 per cent of the total workforce is engaged in agricultural and allied sector activities. The important sectors consider include agriculture, horticulture, animal husbandry, fishery, soil and water conservation, poultry, dairy farming, agriculture marketing, milk-fed and social forestry. Nearly above 60 per cent of families are engaged in agriculture and allied sectors in India. But the share of the agriculture sector in national income has been declining continuously since independence. At the time of independence, the share of the agriculture sector in national income was more than 50 per cent. But dependency on the agriculture sector is not decreasing. It means that the secondary and service sector is not absorbing the manpower who are working in the agriculture sector. Area and production and yield of rice crops has been increasing since 1966 and yield of every crop increased since 1966. But area and production of some crops has decreased since 1966.

Keywords- Agriculture, Economy, Weaker Sections, Horticulture, Dairy Farming

Introduction

Haryana is primarily an agricultural state. More than 70 percent of the population is engaged in agricultural activity. It uplift the socio-economic status of weaker sections of society. India is the second largest producer of wheat and rice. India is currently the second largest producer of agricultural produce. 54.6 per cent of the total workforce is engaged in agricultural and allied sector activities. The important sectors consider include agriculture, horticulture, animal husbandry, fishery, soil and water conservation, poultry, dairy farming, agriculture marketing, milk-fed and social forestry. Nearly above 60 per cent of families are engaged in agriculture and allied sectors in India. But the share of the agriculture sector in national income has been declining continuously since independence. At the time of independence, the share of the agriculture sector in national income was more than 50 per cent. But dependency on the agriculture sector is not decreasing. It means that the secondary and service sector is not absorbing the manpower who are working in the agriculture sector.

Review of Literature

Tripathi et al (2010) examined the progress of Indian agriculture since independence. It determines the source of agriculture growth and determines the agriculture production. It used the decomposition technique for the source of agriculture growth. This study showed that there is a scope for increase in net sown area and gross sown area.

Das et al (2009) analyzed the impact of agricultural credit on agricultural production. This study shows that there is a regional disparity in the distribution of agricultural credit in India. Share of agriculture in total income is continuously decreasing. This paper examined the impact of direct and indirect on agricultural production. Dynamic Panel Data Analysis with Instrumental Variables using Arellano-Bond Regression is used for data analysis. This study found that there is a positive relationship between agricultural credit and agricultural production with immediate effect. But in indirect agricultural credit there is a positive relationship between agricultural credit and agricultural production with one year time lag.

Vaidyanathan (2010) analyzed the agricultural development policy of India. This paper examined the liberalization pressure on agriculture. These are reduction and elimination of restrictions on internal and external trade of agriculture trade, reduction and elimination of input subsidy and reform in intellectual property rights for seed and plant varieties.

Data Analysis

Table-1
Area, Production and Yield of Rice in Haryana

Year	Area	Production	Yield
1966-67	192.0	223	1161
1970-71	269.2	460	1697
1980-81	483.9	1259	2606
1990-91	661.2	1834	2775
2000-01	1054.3	2695	2557
20010-11	1243.3	3465	2788
2018-19	1446.9	4516	3121
2019-20	1559.0	5198	3334
2020-21(P)	1525.8	5633	3692

Source-Statistical Abstract of Haryana, 2023

Diagram-1
Area, Production and Yield of Rice in Haryana

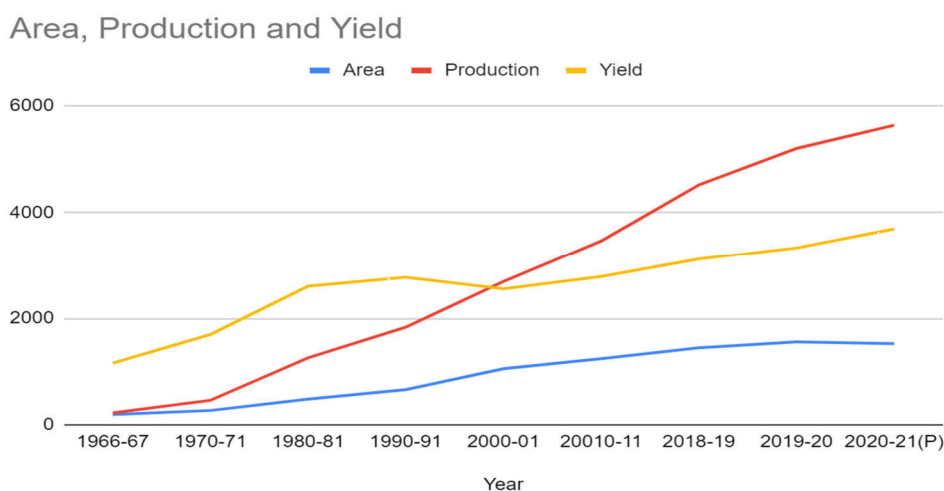


Table -1 and Diagram -1 show the trend of area, production and yield of rice crop in Haryana. It is time series data from 1966-67 to 2020-21. Area under rice crop is continuously increasing. Area under rice crop was just 192000 hectares. But in 2020-21, it was 1525,000 hectares. Similarly production and yield have also increased since 1966.

Table-2
Area, Production and Yield of Jowar in Haryana

Year	Area	Production	Yield
1966-67	270.0	49	181
1970-71	207.3	57	277
1980-81	136.9	48	354
1990-91	129.4	65	497
2000-01	109.4	23	208
20010-11	70.8	38	535
2018-19	40.0	21	528
2019-20	29.9	16	527
2020-21(P)	32.7	15	403

Source-Statistical Abstract of Haryana, 2023

Diagram-2
Area, Production and Yield of Jowar in Haryana

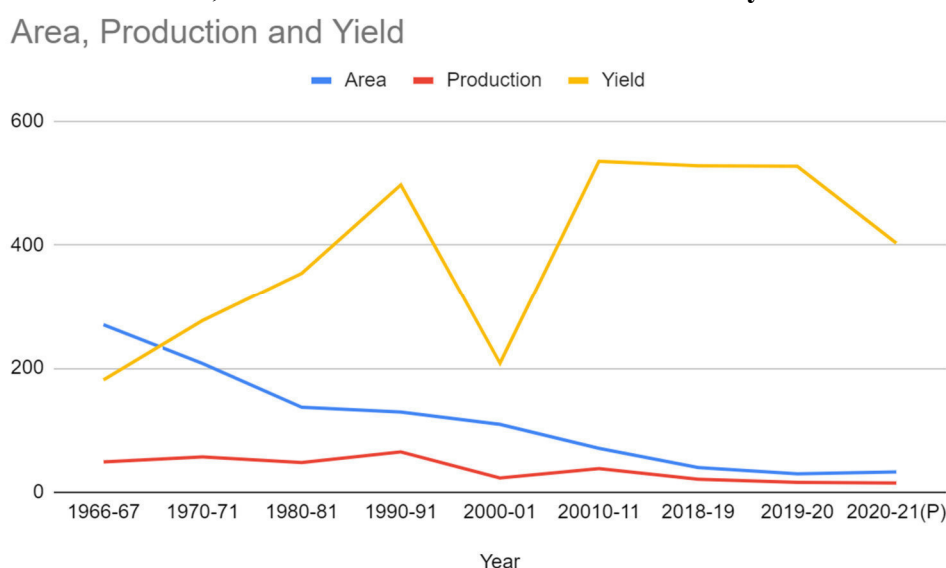


Table-2 and diagram-2 shows the trend of area, production and yield for Jowar crop in Haryana from 1966-67 to 2020-21. It can be shown from the above diagram that the area and

production under the jowar crop is continuously decreasing. But yield per hectare of jowar crop has fluctuated since 1966.

Table-3
Area, Production and Yield of Bajra in Haryana

Year	Area	Production	Yield
1966-67	893.0	373	418
1970-71	879.6	826	939
1980-81	870.3	474	544
1990-91	608.6	526	864
2000-01	608.6	656	1079
20010-11	659.6	1183	1792
2018-19	424.7	878	2068
2019-20	492.9	1101	2235
2020-21(P)	594.1	1411	2378

Source-Statistical Abstract of Haryana, 2023

Diagram-3
Area, Production and Yield of Bajra in Haryana

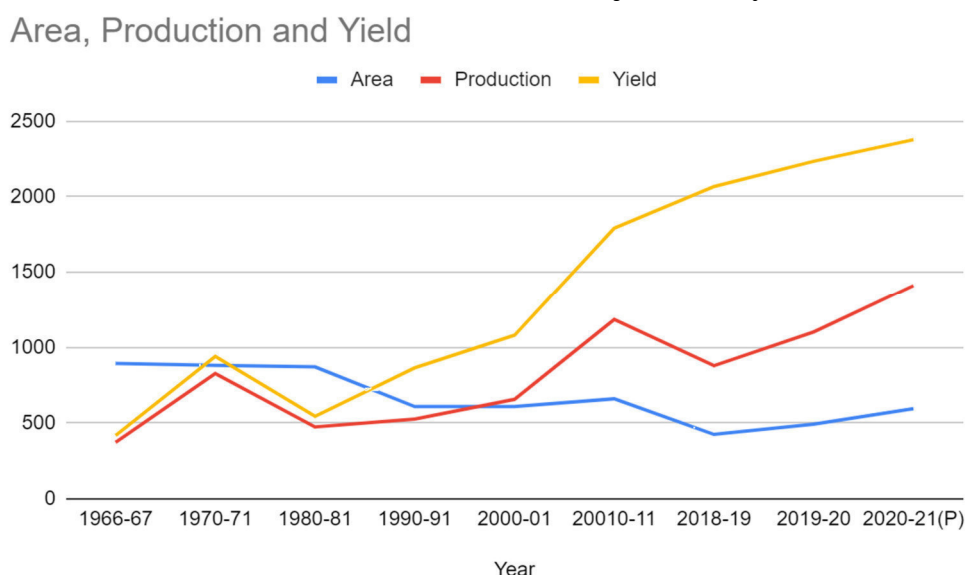


Table-3 and diagram-3 show the area, production and yield of bajra crop in Haryana from 1966-67 to 2020-21. It can be concluded from the above diagram and table that yield per hectare and production is showing an increasing trend since 1966. But the area under bajra crop is slightly decreasing.

Table-4
Area, Production and Yield of Maize in Haryana

Year	Area	Production	Yield
1966-67	87.0	86	988
1970-71	114.4	130	1142
1980-81	71.3	81	1134
1990-91	34.8	49	1414
2000-01	15.4	34	2267
20010-11	9.6	19	1900
2018-19	6.2	16	2644
2019-20	6.0	17	2799
2020-21(P)	9.3	28	2963

Source-Statistical Abstract of Haryana, 2023

Diagram-4
Area, Production and Yield of Maize in Haryana

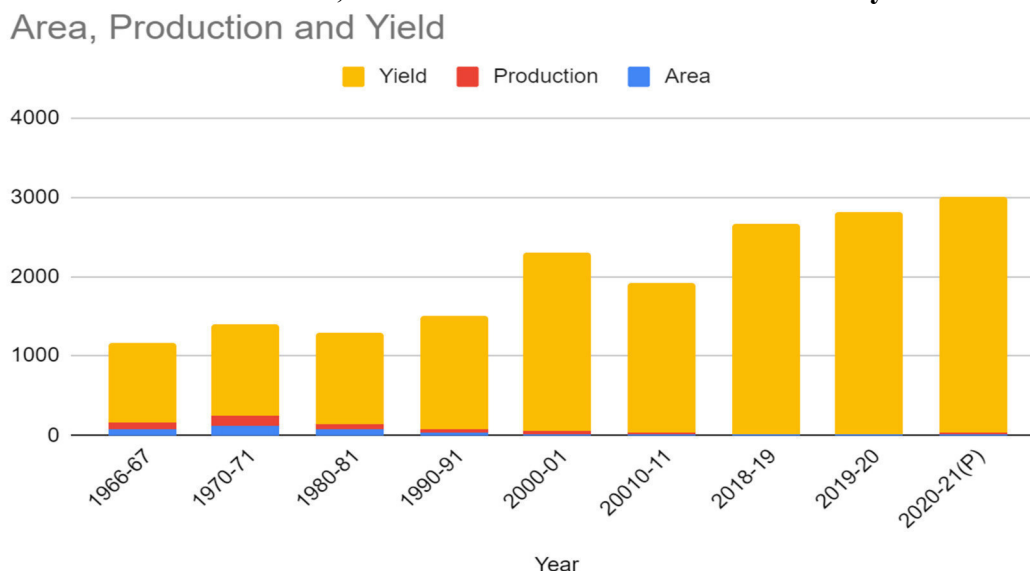


Table-4 and diagram-4 show the area, production and yield of maize crop in Haryana from 1966-67 to 2020-21. Area under maize crop is showing a decreasing trend. Similarly production is also decreasing. Yield of the maize crop has been increasing since 1966.

Conclusion and Discussion

Area under rice crop is continuously increasing. Area under rice crop was just 192000 hectares. But in 2020-21, it was 1525,000 hectares. Similarly production and yield have also increased

since 1966. It can be shown from the above diagram that the area and production under the jowar crop is continuously decreasing. But yield per hectare of jowar crop has fluctuated since 1966. It can be concluded from the above diagram and table that yield per hectare and production are showing an increasing trend since 1966. But the area under bajra crop is slightly decreasing. Area under maize crop is showing a decreasing trend. Similarly production is also decreasing. Yield of the maize crop has been increasing since 1966.

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Effectiveness of breathing exercises on respiratory parameters of individuals with respiratory problems

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Abstract

In India, air quality is poor that 1.2 million deaths in the country can be attributed to air pollution. A nationwide survey, published in Lancet Planetary Health on December 6, found that at least 12.5% of deaths in 2017, or one in eight, can be attributed to unusually high rates of lower respiratory infections, heart disease, strokes, lung cancer, and diabetes, which are a result of severe air pollution in a certain percentage of cases. Of the 1.2 million who died from air pollution-related causes, 51.4% were younger than 70 years old. In total, more than three quarters of India's population is exposed to air pollution that is higher than the recommended level set by India's government. That level, in turn, is four times the maximum recommended by the World Health Organization. No Indian state achieves pollution levels at or below the WHO's limits. The **purpose** of this study was to assess the effectiveness of selected breathing exercises on respiratory parameters of individuals identified with respiratory problems residing in selected community of Mumbai. **Methodology** included a quantitative approach and research design selected was pre experimental one group pre-test post-test design. **Findings:** major findings showed that prior to teaching, there was a poor recording of respiratory parameters but after the teaching and practice of the selected breathing exercises there was an improvement noted in the respiratory parameters in majority of the samples. **Implications:** Above study can serve as a literature search related to selected breathing exercises, practical implication includes use of the selected breathing exercises and will guide the students to take studies related with respiratory problems of individuals.

Key Words: selected breathing exercises, respiratory parameters, respiratory parameters

Introduction:

In India, air quality is poor that 1.2 million deaths in the country can be attributed to air pollution. A nationwide survey, published in Lancet Planetary Health on December 6, found that at least 12.5% of deaths in 2017, or one in eight, can be attributed to unusually high rates of lower respiratory infections, heart disease, strokes, lung cancer, and diabetes, which are a result of severe air pollution in a certain percentage of cases. Of the 1.2 million who died from air pollution-related causes, 51.4% were younger than 70 years old. In total, more than three quarters of India's population is exposed to air pollution that is higher than the recommended level set by India's government. That level, in turn, is four times the maximum recommended by the World Health Organization. No Indian state achieves pollution levels at or below the WHO's limits.

Industrial production has grown in India by more than 50-fold over the past century. The Central Pollution Board (CPCB) has identified 17 categories of most polluting industries which contribute to the environment in terms of suspended particulate matter, gases and effluents. About 77 per cent of the industries contribute to water pollution while 15 per cent to air pollution and the remaining eight per cent to both air and water pollution. The industries which are dependent on natural resources are the most polluting ones and are growing rapidly. Heavy metal pollution from industries is affecting human health in a significant way. The chemical industries discharge various toxic chemicals in the field causing destruction of vegetation, soil and water. Life on this planet is getting deteriorated. The chemical industry even release cyanides in the field due to which at one time about 50000 fish died in Meerut Kali River in 1984. From burning of fossil fuels (coal and oils) sulphur dioxide is produced mostly by Industries, nitrogen oxide is emitted from cars, trucks, buses, power plants and off-road equipment. The pollutants can have adverse effects on the respiratory system. The long-term effects include bronchitis, asthma, chronic obstructive pulmonary disorder, especially among the elderly and the children said by D Saha, former Additional Director, and Central Pollution Control Board. "The Maharashtra Pollution Control Board (MPCB) needs to monitor the industries mentioned in the report for air pollution norm compliance. A 500-m buffer zone needs to be created in residential areas too". He said the concentration of air pollutants in Mumbai started to rise during the 2007-2012 period. Air pollution is becoming a major health problem that affects millions of people worldwide. In support of this observation, the World Health Organization estimates that every year, 2.4 million people die because of the effects of air pollution on health. Mitigation strategies such as changes in diesel engine technology could result in fewer premature mortalities, as suggested by the US Environmental Protection Agency. There was a survey conducted by Han DH (2018) awareness about hazardous chemicals of residents living near chemical plants in South Korea. In this survey the researcher noted that, with economic growth, the use of chemicals has continually increased, resulting in an increase of chemical accidents. Chemical accidents pose a life threat and can lead to many health problems among the residents living in close proximity to chemical plants. The aim of the researcher in this study was to investigate the awareness of the residents living near chemical plants about hazardous chemicals, as well as to survey the awareness of workers who do not directly handle chemicals at chemical plants. The results shown that the government needs to complement the notification system of chemical risk for residents who live close to chemical plants. The highest priority of personal protective equipment which residents want to prepare for chemical accidents was respiratory protective equipment (PPE). The residents responded that, if necessary to purchase PPE, they could bear a portion of the expenses (up to US \$30). This study provides basic data for the development of programs and policies on chemical safety relevant for the residents living in close proximity to chemical plants in South Korea.

Need for the study:

Recent studies of the global burden of disease over the last two decades indicate that occupational lung diseases such as COPD, Asthma, Pneumoconiosis is caused by exposure to airborne particulates are major contributors to mortality and disability. Managing asthma attacks requires paying attention to environmental exposure both indoors and outdoors. In fact, asthma

has been linked to respiratory infections and exposure to environmental factors such as allergens, tobacco smoke, and indoor and outdoor air pollution. According to a study by Philips India, a healthcare-focussed technology major, indoor air can be two-to-five times more polluted than outside air. In low and middle income countries, the exposure of women and children to biomass fuels is of great concern. Improving the health of women in developing countries is one of the key Millennium Development Goals. Several features related to gender constitute specific risk factors for chronic respiratory diseases. For example, in many low income countries women are more exposed to the smoke of biomass fuels used for cooking, whereas in some other regions men are more often smokers. These explain some of the differences in the prevalence of asthma, allergic diseases and chronic obstructive pulmonary disease. Workplace fatalities, injuries and illnesses remain at unacceptably high levels. They involve an enormous and unnecessary health burden, they cause great suffering, and they represent economic losses. WHO estimates that only 10%–15% of workers have access to a basic standard of occupational health services? In 2000, WHO estimated that risk factors at the workplace were responsible worldwide for 37% of back pain, 16% of hearing loss, 13% of chronic obstructive pulmonary disease, 11% of asthma, 8% of injuries, 9% of lung cancer, and 2% of leukaemia. These risks at work caused 850 000 deaths worldwide and resulted in the loss of about 24 million years of healthy life. Work-related asthma is the United Kingdom's fastest growing occupational disease and all health-care professionals should be aware of this possible diagnosis in patients with symptoms of asthma Patients with occupational asthma have higher rates of hospitalization and mortality than healthy workers. In all countries, occupational chronic respiratory diseases represent a public health problem with economic implications. Technologies which are obsolete or banned in industrialized countries are still largely used in the world's poorest countries. In low and middle income countries, occupational illnesses are generally less visible and are not adequately recognized as a problem. Moreover, in those countries, most patients are not compensated and usually continue to work until the disease is severe and debilitating. India has the highest rate of death from respiratory disease in the world, according to the WHO, the rate was 159 per 1,00,000 in 2012, about 10 times that of Italy, five times that of the UK and twice that of China. When you are physically active, your heart and lungs work harder to supply the additional oxygen your muscles demand. Just like regular exercise makes your muscles stronger, it also makes your lungs and heart stronger. As your physical fitness improves, your body becomes more efficient at getting oxygen into the bloodstream and transporting it to the working muscles. That's one of the reasons that you are less likely to become short of breath during exercise over time. People living with lung disease can and should get regular exercise for all the same reasons as everyone else. Your lungs and heart stay stronger, you are better able to perform the tasks of daily living and you feel better in mind and body. A study was conducted regarding the prevalence of Chronic obstructive pulmonary disease in patients attending chest clinic in a tertiary hospital .To assess the true prevalence of Chronic obstructive pulmonary disease in south India and to estimate the burden of diseases .Three years of retrospective analyses all subject who underwent PFT between January 2005 to December 2007.The cohort included individuals who underwent spirometer as part of routine health check-up and patients with respiratory medical problem. The data reported

that 13680 patients who underwent Pulmonary Function Test (PFT) during the 3 year period there were 9702 males and 4164 females 946 patients (6.8%) were diagnosed to have Chronic obstructive pulmonary disease according to Chronic Obstructive Pulmonary Disease guide lines of which 811 were males (86%) and 135 more females (14%). smoking was seen in 830 patients (87.7%) and 116 patients were non-smokers (12.3%). Mean age was 44.65 and 4.15 years. out of 946 patients 284 had mild Chronic Obstructive Pulmonary Disease. 286 had moderate diseases and the remaining 387 patients had severe Chronic Obstructive Pulmonary Disease. The overall prevalence of Chronic Obstructive Pulmonary Disease in present study was 6.85% with prevalence of disease in males being 7.4% and females 4.64%, there is a significant burden of Chronic Obstructive Pulmonary Disease in the community with overall prevalence of 6.85 in south India. Respiratory problems like asthma, COPD are strongly associated with dyspnoea and exercise limitation in activities of daily life. So far no cure for many respiratory disease has come up with an effect, only the effort to alleviate the symptoms are mainly focused. It is therefore of great importance to define effective Pursed Lip Breathing and diaphragmatic breathing exercise to relieve symptoms and to motivate patient to exercise. Pursed Lip Breathing Exercise is good for relaxation and easily understandable and practicable, it helps lungs exchange oxygen and carbon dioxide better to help maintain the vital balance of blood gases and also to relieve shortness of breath. Investigator personally witnessed many of the populations who are affected by respiratory problems and found that they have decreased quality of life and activities of daily living. Looking in to the above mentioned reason the researcher decided to conduct the study in order to assess the effectiveness of selected breathing exercises on respiratory parameters of individuals identified with respiratory problems.

Research Methodology:

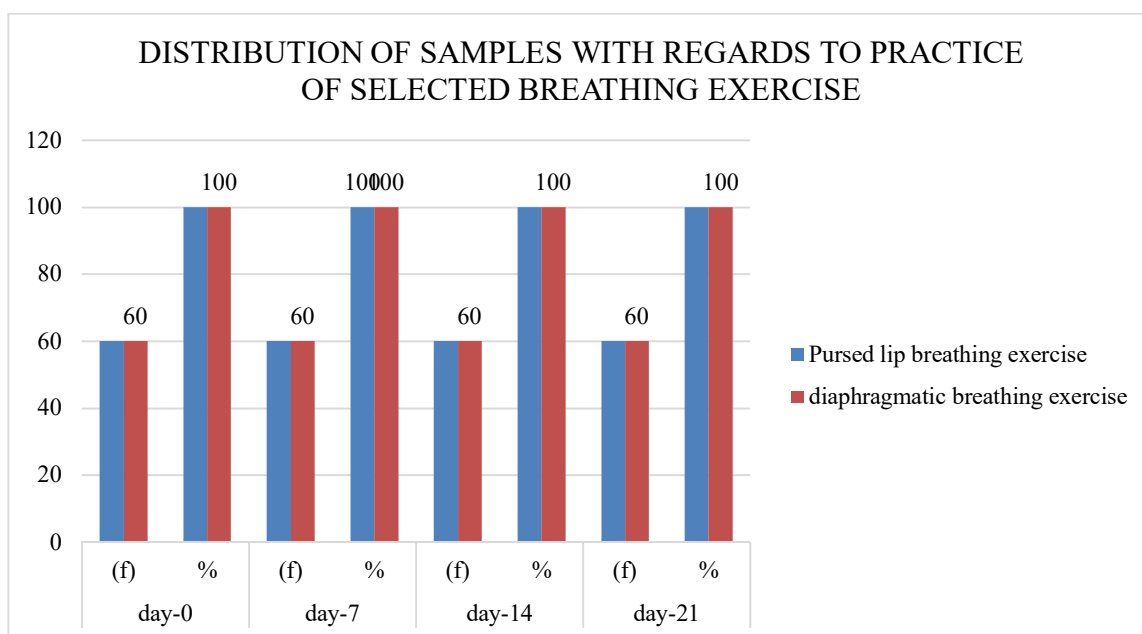
Objective of the study were to identify individuals with respiratory problems. To assess the respiratory parameters before and after selected breathing exercises. To find out the association between demographic variables with selected respiratory parameters. Research approach used was Quantitative approach. The research design selected was pre experimental one group pre test post test design. Setting of the study was selected MIDC area in Andheri, Mumbai. The rationales for selecting this setting were familiarity with the setting, ease of approach, administrative approval, co-operation and availability of the samples. Population included individuals identified with respiratory problems. Sample consisted of sixty individuals from the selected area of MIDC, Andheri, Mumbai. Sampling Technique used was Non-Probability sampling technique. The data gathering technique used was interviewing and observation technique. The tool used was a semi structured interview schedule and observation checklist on selected breathing exercises. The technique with demonstration included interactions between the researcher and the individuals, in the form of lecture cum discussions and demonstration. This study was carried out to understand and evaluate the respiratory health problems of individuals residing near industrial areas. Data collection was done with home visits, one to one conversations and teachings. Consents were taken with the participant also with other family members. The study was done in a manner that protected the confidentiality of the participants.

Reliability of the tool was calculated by Scott Pie Formula and inter-rater method. The reliability of semi-structured interview schedule was 0.99, which included that the tool was reliable.

Results:

As per the study it was observed that all the 60 samples followed the practice of both the breathing exercises daily and this was also recorded in their daily diary which was further observed on day-0,7,14 and 21 through observation checklist. It was specifically instructed to the samples on two major guidelines on breathing exercises which were:

- a) Following a strict schedule of breathing exercise which was twice in a day at 8 am and 6pm
- b) Making sure that sample is in relaxed state before and after exercise
- c) In case of any complications consult the Physician on priority.



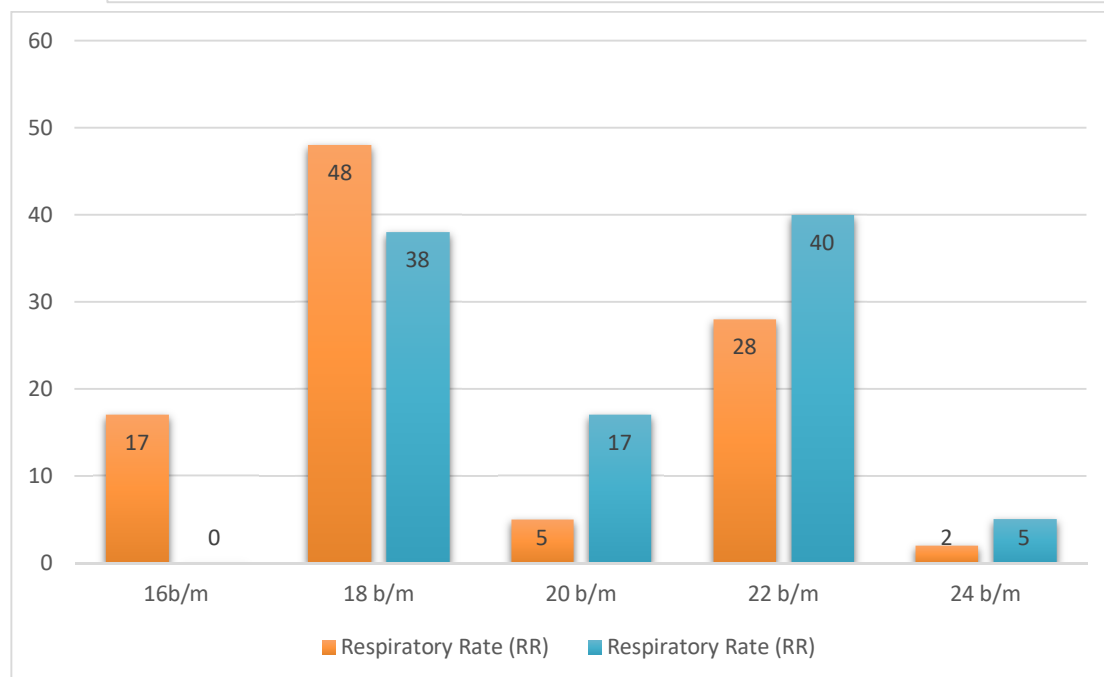
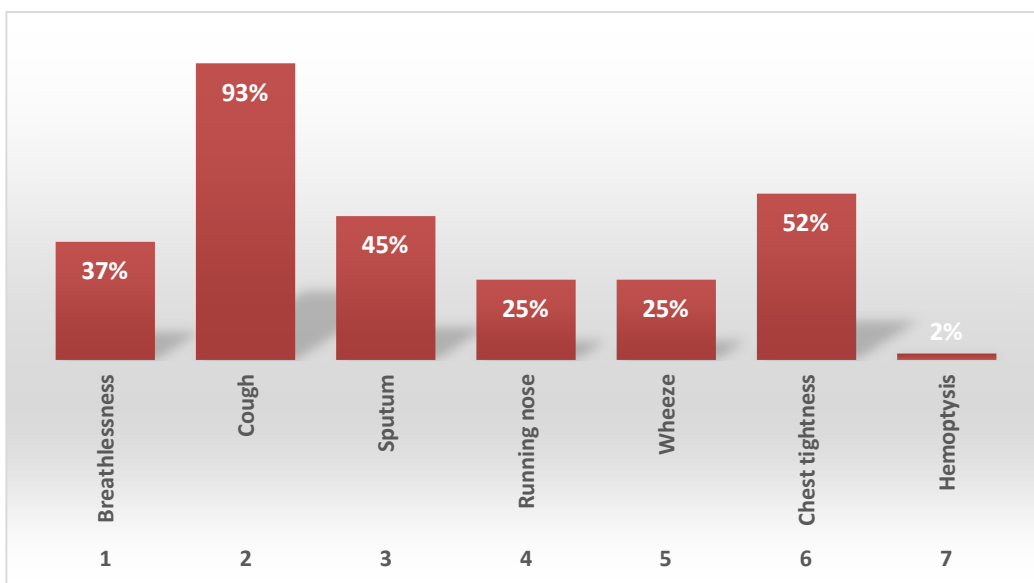
From the above chart it was noted that,

Samples suffering from respiratory illness: As per study it was found that out of the total samples 17 samples (28%) belonged to that group which suffers from respiratory illness while 43 samples (72%) belonged to non-suffering group thus indicating that the group of 17 samples (28%) should start taking precautionary measures as they are prone to poor living and breathing conditions.

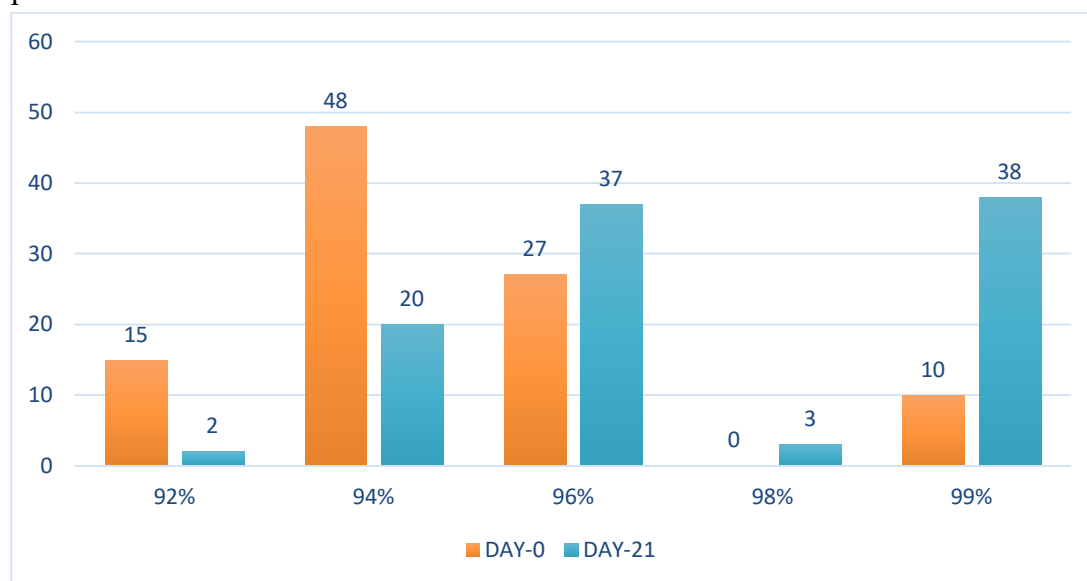
Respiratory disease in the Individual’s family before residing near the Industrial area: 43 samples (73%) belonged to the category which had no respiratory issues before residing near the industrial area and thus it clearly indicates that this group is now prone to respiratory issues in future because of the toxic air quality near the industrial area.

Individuals suffering from illness and types of medications: Out of the total sample it was recorded that 13 samples (22%) belonged to the group who was taking Inhalers, home Nebulization and oral medication as treatment for respiratory illness as per the prescription given by the Physician also one most interesting observation was that most of the samples had Asthma.

Individuals suffering from below mentioned complaints: : It was observed that out of the total samples 22 sample (37%) belongs to that group who have registered complaint of Breathlessness, 56 sample (93%) belongs to that group who have registered complaint of Cough, 27 sample (45%) belongs to that group who have registered complaint of Sputum, 15 sample (25%) belongs to that group who have registered complaint of Running nose, 15 sample (25%) belongs to that group who have registered complaint of Wheeze, 31 sample (52%) belongs to that group who have registered complaint of Chest tightness, zero sample (0%) belongs to that group who have registered complaint of Bronchitis, one sample (2%) belongs to that group who have registered complaint of Hemoptysis.



From the above table, out of the total sample, it was noted that (17%) had a RR of 16b/m while on day 21 no sample was having the RR of 16b/m. On Day 0, 48% was noted to have a RR of 18b/m and on Day 21 the percentage dropped to 38% which is alarming and strongly recommends to practise breathing exercises. The RR of 22b/m and 24b/m would definitely have an ill effect on the respiratory condition of the individual and it was noted that on Day 0, 28% and 2% respectively of the sample were in this red flag bucket and the situation was worsened on Day 21 when it was noted that this percentage has increased to 40% and 5% respectively and this clearly gives a conclusion to follow regular and religious respiratory exercises along with other precautions.



As per the study the above values were recorded and it was noted that on Day-0, 29 samples (48%) were noticed with 94% of SpO₂ while with the practice selected breathing exercises it brought a drastic positive change in the number of samples falling in the category of 96%-99% of SpO₂ level which was 22 samples (37%) and 23 samples (38%) respectively.

n=60

SR. NO.	Peak Flow Rate	Day 0	
		Frequency (f)	Percentage %
1	200-370	59	98
2	400-410	1	2

SR. NO.	Peak Flow Rate (PFR)	Day 21	
		Frequency (f)	Percentage (%)

1	250-400	51	85
2	420-480	7	12
3	540-550	2	3

*PFR indicates Peak Flow Rate

From the above values of PFR, it was observed that on Day-0 the 59 samples (98%) were recorded with 200-370 PFR, no sample were recorded with Green zone observations of PFR. On Day-21 the improved PFR were observed, 51 individuals (85%) with 250-400 PFR rates, seven individuals (12%) with 420-480PFR rates, and a significant improvement was recorded in the observations of Green zone with contribution of two samples (3%).

DISCUSSION:

SIGNIFICANT FINDINGS OF THE STUDY

1. Findings related to the demographic characteristics of the Individuals:

With regards to age of the individuals, it was found that (50%) majority were from 41 years and above. With regards gender it was noted that majority were Males, (62%). With regards to religion it was noted that most of them were Hindu (63%), with regards to marital status the majority were recorded as married (87%), with regards to dietary pattern the highest recorded were both vegetarians and non-vegetarians (68%), With regards to Educational status it was found that (50%) were illiterate. With regards to occupation the highest were unemployed (37%), with regards to type of family most of them were noted to have joint family (70%) with regards to members in the family (45%) majority were from the category of more than 6 members. With regards to family income per month, it was noted that majority (73%) were earning more than Rs. 15001/-.With regards to years of residence near industrial area majority (38%) were from the category 0-5 years of residence. With regards to addiction of smoking (72%) were non-smokers, addiction of alcohol (82%) were not consuming alcohol, tobacco consumption also majority (88%) were those who were not having any habit of tobacco consumption. A prospective epidemiological study was conducted at Tamil Nadu to detect the prevalence of COPD. 9946 inhabitants who were aged 30 year or more were selected. Chest radiography and peak expiratory flow rate (PEFR) were used for data collection. The study result detected COPD among 328 patients. This study concludes that there was increased prevalence among males, heavy smokers, lower income group and women cooking for long hours using firewood.

2. Findings related to practice of selected breathing exercises:

With regards to pursed lip breathing exercise, it was noted that all 60 samples (100%) followed the practice daily as advised, no complication took place before and after the practice of pursed lip breathing exercise. With regards to Diaphragmatic breathing exercise, it was noted that all 60 samples (100%) followed the practice as advised, there were no complication before and after the exercise. A study was done by Seher Unver (2018) in which the aim was to explore deep breathing exercise education receiving and performing status of patients undergoing abdominal surgery. It was a descriptive and cross-sectional study conducted at surgical ward of a university

hospital with 130 patients, 56.2% of the patients received education about deep breathing exercises and 51.5% of them performed it. All the patients who were asked to practice did the exercises as per instruction given. Hence, a strong correlation was found between the status of receiving education and performing statuses of patients. As a good finding, patient practising the deep breathing exercise were positively affected. A true experimental study was conducted at Korea on effect of deep breathing and coughing exercises in prevention of postoperative pulmonary complications. Post-test only design was used in the study. The study comprised of 90 patients divided into 3 groups, 30 patients in each group. Incentive spirometry techniques was given to patients in group 1, deep breathing and coughing exercise was given to patients in group 2 and patient in group 3 had received no respiratory treatment. The findings of the study showed that the patients in group 1 and 2 who performed deep breathing and coughing exercises under the supervision of the investigator for 15 minutes 4 times a daily following abdominal surgery were prevented the pulmonary complications from 30% to 16.7% A study was conducted at Llusi Alcanyis Spain on prevention of postoperative pulmonary complications through respiratory rehabilitation. A randomized clinical trial was conducted with 81 subjects who underwent upper abdominal surgery. The experimental group consists of 40 subject who received breathing exercises and control group consist of 41 subjects did not receive any breathing exercises. The main outcome measures were preoperative and postoperative clinical evaluation, spirometry, arterial geometry and simple chest x-rays. The results of the study showed that the postoperative pulmonary complications were 7.5% in the experimental group and 19.5% in the control group. The study highlighted that breathing exercises protects against postoperative pulmonary complications and was more effective in moderate and high risk patients.

3. Findings related to respiratory Parameters pre and post selected breathing exercises.

With regards to respiratory rate of the sample pre and post selected breathing exercises, it was noted on day-0 that three samples (5%) were having respiratory rate 20b/m which was improved on post selected breathing exercise and 10 sample (17%) were recorded with 20b/m. With regards to chest circumference (inhalation), on day-0 it was noted that 13 samples (22%) were having measurement of 56-65cm. and on day-21 it was improved and 16 samples (27%) noted with 56-65cm measurement. With regards to chest circumference (exhalation), on day-0 it was noted that 15 samples (25%) were having 76-85cms, while on day-21 it was increased to 19 samples (32%) with the same measurement. With regards to Peak flow rate, it was noted that 59 samples (98%) recorded with 200-370 PFR, while on day-21 it was reduced to 51 samples (85%) and two samples (3%) were noted under green zone (540-550 PFR) which was a great outcome after the practise of selected breathing exercise. With regards to SpO₂, it was noted that on day-0, six samples (10%) were recorded with 99% SpO₂, while on day-21, 23 samples (38%) were recorded with 99% SpO₂, which was an positive outcome.

A study was conducted at Brazil to evaluate the influence of pursed lip breathing exercise on heart rate variation and cardiorespiratory parameters in patients with COPD, 16 subjects were assessed at rest, in seating position, under three conditions, 10 minutes of normal breathing without pursed lip breathing(R1), 8 minutes with pursed lip breathing (R2), and 10 minutes of

normal breathing once more (R3). Heart rate, respiratory rate and SpO₂ were assessed during trials. The study results concluded that pursed lip breathing produced significant changes in HR, RR and SpO₂ and did not alter BP in subjects with COPD. Breslin EH, et al (1994) conducted the study to indicate a change in the pattern of chest wall muscle recruitment and improved ventilation with pursed-lip breathing (PLB) in COPD. Pursed lip breathing led to increased rib cage and accessory muscle recruitment during inspiration and expiration, increased abdominal muscle recruitment during expiration, decreased duty cycle of the inspiratory muscles and respiratory rate, and improved SaO₂. In addition, PLB resulted in no change in pressure across the diaphragm and a less fatiguing breathing pattern of the diaphragm. Changes in chest wall muscle recruitment and respiratory temporal parameters concomitant with the increased SaO₂ indicate a mechanism of improving ventilation with PLB while protecting the diaphragm from fatigue in COPD. Alterations in the pattern of respiratory muscle recruitment with PLB may be associated also with the amelioration of dyspnoea. The study suggested further investigation is necessary to explore the relationship between the pattern of respiratory muscle recruitment during PLB and dyspnoea.

CONCLUSION:

The various findings of the study showed that, prior to the teaching, there was poor recording of respiratory parameters but after the teaching and practise of the selected breathing exercises there was an improvement noted in the respiratory parameters in majority of the samples. Hence, the study could help in bringing about awareness among every individual residing near industrial areas that precautionary measures and the selected breathing exercises can be helpful to maintain proper respiratory health. However, reinforcement and continuous education on similar related topics could enhance the individual's awareness level and aid in an effective care at home.

Conflict of Interest: The author certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

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भारत में महिला राजनीतिक सहभागिता : एक विवेचनात्मक अध्ययन

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शोध सार

किसी समाज या देश की नारी की स्थिति उस समाज या देश की सभ्यता का दर्पण है। किसी भी देश का समग्र विकास महिलाओं की भागीदारी के बिना नहीं हो सकता है, क्योंकि देश की जनसंख्या का लगभग आधा हिस्सा महिलाएँ होती हैं। महिलाओं का उत्थान किसी भी राष्ट्र के मानव संसाधन विकास का सर्वाधिक महत्वपूर्ण भाग है क्योंकि महिलाओं की स्थिति और राष्ट्रीय विकास के बीच एक सीधा और सुस्पष्ट सम्बन्ध है।

प्रजातंत्र की भावना एवं राष्ट्रीय विकास के उद्देश्य के अनुरूप सम्पूर्ण विश्व में महिलाओं के विकास तथा कल्याण के लिये आवश्यक समानता, स्वतंत्रता एवं निर्णयकारी संस्थाओं में भागीदारी हेतु अनेक राजनीतिक अधिकार प्रदान किये गये हैं। वर्तमान में सामान्यतः सभी लोकतांत्रिक देशों में महिलाओं की आर्थिक, सामाजिक एवं राजनीतिक स्थिति में सुधार तथा उनकी स्थिति को सुदृढ़ करने के प्रयास किये जा रहे हैं। परिणामस्वरूप आज सभी क्षेत्रों में महिलाओं के समुचित विकास के लिये अनुकूल वातावरण विकसित हो रहा है।

यह कहा जा सकता है कि सैद्धांतिक रूप से भारतीय संविधान के अंतर्गत एवं कानूनी, सामाजिक और राजनीतिक स्तर पर महिलाओं को समुचित अधिकार, प्रतिनिधित्व एवं सहभागिता हेतु समुचित प्रावधान किए गए हैं और उन्हें इस बाबत संरक्षण भी प्रदान किया गया है लेकिन व्यावहारिक स्तर पर परिस्थितियाँ और इस बाबत अधिकारों की प्रकृति भिन्न है। जनसंख्या का आधा भाग होने के बावजूद राजनीतिक निर्णय निर्माण प्रक्रिया में महिलाओं की भागीदारी सीमित है।

समता के अधिकार की प्रत्याभूति के बावजूद भी महिलाओं का प्रतिनिधित्व संसद एवं विधानमण्डलों में नगण्य रहा है किन्तु कम प्रतिनिधित्व के बावजूद भी उनका गुणात्मक योगदान उल्लेखनीय रहा है।

मूल शब्द - प्रक्रिया, सहभागिता सार्वजनिक, राजनीतिक, सामाजिक, प्रतिनिधि ।

परिचय - त्रिक शासन का अवधारणात्मक आधार है। लोकतंत्र का शासन की शक्ति का जनता में अधिवास लोकतां-
आशय ऐसी शासन प्रणाली से है, जिसके अंतर्गत जनता प्रत्यक्ष अथवा अप्रत्यक्ष रूप से शासन कार्यों में भाग लेती है।
अब्राहम लिंकन के अनुसार, “जनता का, जनता के लिए, जनता का शासन ही लोकतंत्र है।” आज प्रजातंत्र शासन का
सबसे अधिक लोकप्रिय रूप है तथा विश्व के

अधिकांश देशों में प्रजातान्त्रिक शासन प्रणाली विद्यमान है।

लोकतांत्रिक व्यवस्था में जनता द्वारा प्रतिनिधियों का चुनाव राजनीतिक सहभागिता का आधारभूत चरण है
क्योंकि राजनीतिक सहभागिता का सम्बन्ध उन स्वैच्छिक गतिविधियों से है जिनके द्वारा किसी समाज के सदस्य अपने

शासकों के चयन, प्रत्यक्ष एवं अप्रत्यक्ष रूप से सार्वजनिक नीतियों के निर्णय में भाग लेने तथा राजनीतिक व्यवस्था के विभिन्न स्तरों पर भागीदारी करते हैं।

प्रजातंत्रिय शासन प्रणाली महिला एवं पुरुष दोनों को सामाजिक और राजनीतिक स्तर पर प्रतिनिधित्व एवं भागीदारी एवं इनमें उन्नति तथा उत्थान के समान अवसर प्रदान करती है क्योंकि किसी भी लोकतांत्रिक, विकसित एवं स्वस्थ समाज के निर्माण एवं विकास में स्त्री और पुरुष दोनों की परस्पर सहभागिता एवं साझेदारी अत्यन्त आवश्यक है। वैश्विक स्तर पर राजनीतिक क्षेत्र में महिलाओं की सहभागिता - महिलाओं को प्रशासन एवं राजनीति में समानाधिकार प्रदान करने में अग्रणी प्रयास करने वाले देश संयुक्त राज्य अमेरिका, फ्रांस, ब्रिटेन, डेनमार्क, नार्वे, फिनलैंड जैसे देशों में साथसाथ आज रूस जैसे साम्यवादी दे, ईरान जैसे कट्टरपंथी राष्ट्र तथा अनेक अल्पविकसित एवं विकासशील राष्ट्रों में महिलाओं को राजनीतिक दृष्टि से शक्ति सम्पन्न बनाया जा रहा है तथा महिलायें अपनी प्रभावशाली भूमिका में वैश्विक राजनीति में अपनी अहम उपस्थिति दर्ज कराने में सफल हो रही है।

उदाहरण के रूप में अन्तर्राष्ट्रीय क्षेत्र में श्रीलंका की श्रीमती चंद्रिका कुमारतुंगा, खालिदा जिया, पाकिस्तान की बेनजीर भुट्टो, बांग्लादेश की शेख हसीना, ग्रेट ब्रिटेन की मारग्रेट थ्रेचर, जर्मनी की चार्ल्स मिशेल एवं भारत की श्रीमती इंदिरा गांधी एवं श्रीमती प्रतिभा पाटिल देश के सर्वोच्च पदों पर पहुंचकर अपनी बहुमुखी प्रतिभा का परिचय दे चुकी हैं।

विश्व के अधिकांश देशों में आज महिलाएं प्रत्येक क्षेत्र में पुरुषों के साथ कदम से कदम मिलाकर अपनी अन्तर्निहित क्षमता के बल पर आत्मविश्वास और साहस के साथ नीति निर्माणक संस्थाओं में नेतृत्वकारी भूमिका का निर्वहन कर रही हैं। लेकिन इस स्तर तक पहुंचने में महिलाओं को अपने अधिकारों के लिये दीर्घकाल तक संघर्षरत रहना पड़ा है।

वैश्विक स्तर पर राजनीतिक क्षेत्र में महिलाओं को उचित प्रतिनिधित्व एवं सहभागिता के लिए मुख्य प्रयास आधुनिक युग में लोकतांत्रिक व्यवस्था के आविर्भाव होने के बाद प्रारंभ हुए। इन लक्ष्यों की प्राप्ति में 1688 की इंग्लैंड की गौरवपूर्ण क्रांति, 1776 की अमेरिकी क्रांति और 1789 की स्वतंत्रता, समानता और बंधुत्व के नारे से युक्त फ्रांसीसी क्रांति का महत्वपूर्ण योगदान रहा।

1945 में संयुक्त राष्ट्र संघ की स्थापना के पश्चात इस क्षेत्र में और तेजी से प्रयास प्रारंभ हुए और समय पर संयुक्त राष्ट्र संघ के द्वारा महिलाओं के राजनीतिक अधिकारों हेतु क्रियान्वित किए गए विभिन्न अभिसमय एवं घोषणाओं के द्वारा वैश्विक स्तर पर महिलाओं को राजनीतिक और सामाजिक स्तर पर समुचित प्रतिनिधित्व एवं अधिकारों की प्राप्ति हुई। महिलाओं के राजनीतिक अधिकारों से संबंधित अंतरराष्ट्रीय कानूनों एवं संधियों द्वारा संयुक्त राष्ट्र संघ ने समाज में पुरुष व महिलाओं के बीच में समानता के विकास में सहायता की है।

संयुक्त राष्ट्र संघ के तत्वाधान में 1946 में महिला हैसियत आयोग की स्थापना, 1948 की मानवाधिकारों की सार्वभौमिक घोषणा, 1952 में महिलाओं को राजनीतिक अधिकार देने की घोषणा, 1967 में महिलाओं के विरुद्ध सभी प्रकार के भेदभावों की समाप्ति की घोषणा, 1979 में महिलाओं के प्रति सभी प्रकार के भेदभाव समाप्त करने संबंधी अभिसमय, दिसम्बर 1993 को महासभा में महिलाओं के प्रति हिंसा निष्कासन की घोषणा, 1975 में मैक्सिको,

1980 में कोपेनहेगन, 1985 में नैरोबी एवं 1995 बीजिंग में महिला मानवाधिकारों के संदर्भ में किए गए विश्व सम्मेलन, 2001 में डर्बन विश्व सम्मेलन का आयोजन, 2006 में मानवाधिकार परिषद एवं वर्ष 2010 में 'यूवीमेन .एन.' का गठन एवं 1990 से 2000 तक का दशक महिला दशक के रूप में मनाया गया।

संयुक्त राष्ट्र संघ द्वारा अन्तर्राष्ट्रीय महिला वर्ष की घोषणा के साथ विश्व पटल पर महिला अधिकारों की सार्वभौमिक स्वीकृति के कारण राजनीतिक क्षेत्र में महिला सहभागिता एवं प्रतिनिधित्व अपने वास्तविक स्वरूप को प्राप्त कर सका। अन्तर्राष्ट्रीय महिला दशक की घोषणा के पश्चात, राष्ट्रीय अन्तर्राष्ट्रीय स्तर पर महिला प्रस्थिति के - का सूत्रपात हुआ परिणामस्वरूप महिला विकास के लिए सम्पूर्ण विश्व में विविध उन्नयन की दिशा में संस्थागत प्रयासों नीतियों, योजनाओं और कार्यक्रमों का निर्माण एवं क्रियान्वयन किया गया।

विश्व के सभी देशों में महिलाओं को सैद्धान्तिक रूप से वैधानिक एवं राजनीतिक अधिकार प्राप्त है, लेकिन व्यवहारिक रूप से सम्प्रति सामाजिक राजनीतिक स्तर पर लैंगिक असमानता व्याप्त है। प्रजातंत्र के इस आधारभूत - विचार कि "सभी मनुष्य चाहे वह पुरुष हो अथवा महिला, सभी बराबर है" के विपरीत सामान्यतया यह देखा जाता है कि महिलाएं जीवन के विभिन्न क्षेत्रों में समुचित प्रतिनिधित्व एवं सहभागिता से वंचित कर दी जाती है अथवा उसे उन क्षेत्रों से अलग रखा जाता है, विशेष रूप से राजनीति में ऐसा स्पष्ट दिखाई देता है।

विश्व के अधिकांश देशों के राजनीतिक परिदृश्य में महिलाओं की सहभागिता कम ही है। उदाहरणार्थ विश्व के विभिन्न देशों की संसद में महिला प्रतिनिधित्व मात्र 20.87 प्रतिशत ही है, जबकि महिलाएं विश्व की आबादी का लगभग आधा भाग है। अभी भी वे पुरुषों के हाथों की कठपुतली बनी हुई है। वे अपना निर्णय स्वयं नहीं ले पाती हैं। संयुक्त राष्ट्रसंघ ने अपनी रिपोर्ट के माध्यम से यह सिद्ध किया है कि "महिलाएं संसार की सबसे तिरस्कृत श्रेणी में आती है" यहाँ तक कि राजनीति विज्ञान के जनक अरस्तु ने भी महिलाओं को दासों की भाँति नागरिक की श्रेणी में नहीं माना।

भारतीय संदर्भ में महिला राजनीतिक सहभागिता - भारतीय संदर्भ में महिला राजनीतिक सहभागिता पर विचार करे तो पाते है कि भारतीय सभ्यता के इतिहास में सर्वाधिक विकसित समाज ऋग्वैदिक काल ही था। इस समय महिलाओं को पुरुषों के समान अधिकार प्रदान किये गये थे। इस काल में महिलाओं ने वैदिक ऋचाओं के सृजन से लेकर सर्वोच्च राजनीतिक पदों पर सशक्त भूमिका दर्ज करवाई। रोमशा, उर्वशी, घोषा, विश्ववारा, लोपामुद्रा आदि परम् विदुषी स्त्रियां हुई, जिन्होंने वैदिक ऋचाओं की रचना की। उत्तर वैदिक काल में महिलाओं की राजनीति के क्षेत्र में सक्रियता कम होती चली गई। धीरे आते सब अधिकार छिन लिए गए। उन्हें पुरुषों का भोग्य बना दिया।-धीरे मध्यकाल के आते-

आधुनिक काल में पाश्चात्य शिक्षा के विकास के बाद महिलाओं के लिए एक बार फिर विकास का मार्ग खुला। स्त्री पुरुष भेदभाव को समाप्त करने एवं राजनीतिक क्षेत्र में महिलाओं की-समुचित भागीदारी हेतु अनेक समाज सुधारकों यथा राजा राममोहन राय, रानाडे, दयानंद सरस्वती, ईश्वरचंद्र विद्यासागर, स्वामी विवेकानंद, महात्मा गांधी, जवाहरलाल नेहरू, डॉ भीमराव अंबेडकर, एनी बेसेंट इत्यादि ने अपने स्तर पर प्रयास किये।

उक्त प्रयासों के अलावा श्रीमती सरोजिनी नायडू, कमला देवी चट्टोपाध्याय, अरुणा आसफ अली, सरला देवी चैधरानी, विजय लक्ष्मी पंडित, राजकुमारी अमृतकौर जैसी महिलाओं ने स्वाधीनता आंदोलन में सक्रिय भागीदारी द्वारा

असाधारण योगदान दिया। महिला वर्ग की प्रभावी भूमिका के कारण राजनीतिक, सामाजिक तथा आर्थिक विषमताओं और भेदों के बावजूद भारतीय जनमानस-‘ को ब्रिटिश साम्राज्य के विरुद्ध सूत्रबद्ध कर राष्ट्रीय एकीकरण की प्रक्रिया को पूरा करते हुए भारत ने एक राष्ट्र के रूप में आजादी हासिल की।

राजनीतिक अधिकारों के लिये संघर्षरत महिलाओं के प्रयासों तथा महिलाओं के समान अधिकारों के पक्षधर गांधीजी की भावना के अनुरूप स्वतंत्रता के पश्चात भारतीय संविधान में महिलाओं को पुरुषों के समान सामाजिक-आर्थिक एवं राजनीतिक न्याय प्राप्त करने के अवसर प्रदान किए गए। भारतीय संविधान की प्रस्तावना में ही सामाजिक न्याय, प्रतिष्ठा एवं अवसर की समानता के आदर्श को स्वीकार किया गया। संविधान के अनुच्छेद 14, 15, 16, 19, 21, 23, 24, 37, 39 (ब), 44 तथा अनुच्छेद 325 स्त्री को पुरुष के समकक्ष समान अधिकारों की पुष्टि करते हैं, वहीं राज्य के नीति निर्देशक तत्वों से संबंधित अनुच्छेद 39 (क), 39 (ख), 40, 41, 42, 43, मूल कर्तव्यों से संबंधित अनुच्छेद 51 क तथा अनुच्छेद (ड)330 एवं 332 में नारी के विशेष संरक्षण के प्रावधान किये गये हैं।

इसके अतिरिक्त भारतीय दण्ड संहिता (1860) की अनेक धाराओं (304, 312-316, 319-323, 340, 344, 354, 361, 363, 364, 366, 372-373, 377, 494, 496, 498 (ए), 499 एवं 509 आदितथा अनेक (है। केन्द्रीय तथा राज्य सरकारों द्वारा महिलाओं के लिये चलाई जा रही कानूनों द्वारा महिलाओं को सबल बनाया गया अनेकों योजनाओं से महिला को राजनीतिक रूप से अधिकार सम्पन्न बनाये जाने के प्रयास किये गये है।

इसके अलावा भारत में संविधान द्वारा स्थापित लोकतंत्र एवं लोककल्याणकारी राज्य के अन्तर्गत लिंग विभेद रहित समानता को बल दिया गया है जिसे व्यावहारिक एवं धरातलीय आधार देने एवं महिलाओं को राजनीतिक रूप से सबल बनाने हेतु 1993 में 73वें एवं 74वें संविधान संशोधन द्वारा क्रमशः त्रिस्तरीय पंचायती राज संस्थाओं एवं स्थानीय निकायों में प्रत्येक स्तर पर महिला सदस्यों के लिए एकतिहाई सीटें आरक्षित कर दी गईं-

इस निर्णय के माध्यम से भारतीय लोकतंत्र की प्रस्तावना के मूल दर्शन स्त्रीपुरुष समानता के आधार को - विस्तृत एवं वास्तविक स्वरूप प्रदान किया गया। इस व्यवस्था के क्रियान्वयन से देश के सभी प्रान्तों में ग्रामीण और शहरी पंचायतों के सभी स्तरों पर जनप्रतिनिधियों के रूप में महिलाएँ अपनी प्रभावी भूमिका निर्वाह कर रही है।

राजनीति क्षेत्र में महिला सहभागिता में और अभिवृद्धि करने के उद्देश्य से एक महत्वपूर्ण पहल करते हुए राजस्थान सरकार ने वर्ष 2009-2010 में सम्पन्न पंचायती राज संस्थाओं और स्थानीय नगर निकायों में महिलाओं के आरक्षण को एक तिहाई से बढ़ाकर-50 प्रतिशत कर दिया है। यद्यपि इस निर्णय को न्यायालय में चुनौती दी गई है और यह मामला अभी न्यायालय में विचाराधीन है।

यह कहा जा सकता है कि सैद्धांतिक रूप से भारतीय संविधान के अंतर्गत एवं कानूनी, सामाजिक और राजनीतिक स्तर पर महिलाओं को समुचित अधिकार, प्रतिनिधित्व एवं सहभागिता हेतु समुचित प्रावधान किए गए हैं और उन्हें इस बाबत संरक्षण भी प्रदान किया गया है लेकिन व्यावहारिक स्तर पर परिस्थितियां और इस बाबत अधिकारों की प्रकृति भिन्न है। जनसंख्या का आधा भाग होने के बावजूद राजनीतिक निर्णय निर्माण प्रक्रिया में महिलाओं की भागीदारी सीमित है।

समता के अधिकार की प्रत्याभूति के बावजूद भी महिलाओं का प्रतिनिधित्व संसद एवं विधानमण्डलों में नगण्य रहा है किन्तु कम प्रतिनिधित्व के बावजूद भी उनका गुणात्मक योगदान उल्लेखनीय रहा है।

भारतीय इतिहास में राजस्थान एवं उसकी वीरांगनाओं का स्थान सदैव अद्वितीय रहा है। राजस्थान की वीरांगनाओं ने जौहर की धधकती हुई ज्वाला में सहर्ष अपने प्राणों की आहुति देकर जो महान आदर्श प्रस्तुत किया है, उसकी समता का उदाहरण अन्य देशों के इतिहास में मिलना दुर्लभ है। राजस्थान ने ही रानी कर्मवती, पद्मिनी, रानी हाडा जैसी वीरांगनाएं, मीरा, बांकावती, ब्रजकुंवरी, सुन्दकंवरी, चारण कवयित्री साधू जैसी विदुषी और चैहान रानी, झालन देवी व रानी सोमल देवी जैसी प्रशासनिक महिलाएं दी हैं।

इसके अलावा स्वतंत्रता संघर्ष में भी राजस्थान की महिलाओं की भूमिका महत्वपूर्ण रही है। राजस्थान में राजनीतिक चेतना और नागरिक अधिकारों के लिए अनवरत चले आन्दोलनों में महिलाओं की भूमिका भी शलाघनीय रही। जब राजस्थान में राजनीतिक चेतना और नागरिक अधिकारों के लिये संघर्ष प्रारंभ हुआ तो महिलायें भी सत्याग्रहों में खुलकर भाग लेने लगीं।

राजस्थान के स्वतंत्रता संग्राम में 1930 से 1947 तक अनेक महिलाएँ जेल गईं। इनका नेतृत्व करने वाली साधारण गृहणियाँ ही थीं, जिनकी गिनती अपने कार्यों तथा उपलब्धियों से असाधारण श्रेणी में की जाती है। इनमें अंजना देवी, नारायण देवी एवं नगेन्द्रबाला, जिन्होंने 15 वर्ष की अल्पायु में ही 1941 में स्वाधीनता आन्दोलन में भाग लिया एवं जो स्वतंत्र भारत की पहली महिला जिला प्रमुख एवं दो बार विधायक रही, का नाम प्रमुख है।

इनके अलावा जानकी देवी, रतन शास्त्री, शांता त्रिवेदी, रामलोरी देवी, सत्यभामा, काली बाई, रमा देवी पाण्डे, सुशीला देवी, सुमित्रा देवी खेतानी, इन्दिरा देवी शास्त्री, विद्या देवी, गौतमी देवी भार्गव, मनोरमा पण्डित, मनोरमा टण्डन, प्रियंवदा चतुर्वेदी और विजया बाई, रत्नी भील, उदी मलिक, काली भील, स्नेहलता वर्मा, भगवती देवी का नाम भी उल्लेखनीय है। इस प्रकार इन महिलाओं ने राजस्थान के स्वतंत्रता संग्राम में भाग लेकर न केवल राजनीतिक सहभागिता को बढ़ाने का कार्य किया अपितु महिलाओं में राष्ट्रवादी भावना का संचार कर उन्हें राष्ट्रीय आंदोलन में भाग लेने हेतु प्रेरित किया।

राजस्थान के इतिहास में सामंतवादी जड़ों के गहरे जमे होने के बावजूद यहां स्वतंत्रता के पश्चात् संसदीय लोकतंत्र का वृक्ष फलताफूलता जा रहा है। इस संसदीय लोकतंत्र के विकास में योग्य एवं अनुभवी महिला प्रतिनिधियों का बहुमूल्य योगदान रहा है।

राजस्थान निर्माण के समय राजनीति में महिला वर्ग की भागीदारी बहुत अधिक नहीं थी, धीरेधीरे इसकी गति - बढ़ने लगी। महिला वर्ग को राजनीति में सक्रिय भूमिका निभाने हेतु प्रोत्साहित किया गया और इसी का परिणाम रहा कि धीरेधीरे मुख्यधारा में अपनी धीरे राजस्थान की राजनीति में महिला वर्ग का वर्चस्व बढ़ने लगा और वह राजनीति-प्रभावी भूमिका निभाने लगी।

स्वतंत्रता प्राप्ति के पश्चात् इस प्रदेश में लोकतंत्र के विकास एवं पल्लवन में महिलाओं की महत्वपूर्ण भूमिका रही है। वास्तव में प्रदेश में जिन महिलाओं ने राजनीति सहित विभिन्न दायित्वों को स्वीकार किया है उन्होंने यह सिद्ध कर दिया है कि वे राज्य के राजनीतिक जीवन में प्रभावकारी भूमिका निभा सकती हैं।

1952 में हुए पहले विधानसभा चुनाव में 160 सीटों पर चार महिलाएं ही मैदान में उतरीं, लेकिन वे चुनाव नहीं जीत सकी, लेकिन कुछ समय पश्चात ही बांसवाड़ा सीट के उपचुनाव में यशोदा देवी नवंबर 1953 में चुनाव जीतकर राजस्थान विधानसभा की पहली महिला विधायक बनीं, तब उनकी उम्र मात्र 26 वर्ष थी। इसी वर्ष मोहनलाल सुखाड़िया मुख्यमंत्री बने और कमला जी को उपमंत्री बनाया गया। वे 27 वर्ष की आयु में मंत्री बनने वाली प्रदेश की पहली महिला थीं। इसके बाद वे दूसरे और छठे चुनाव को छोड़कर निरंतर विधायक बनीं।

लोकसभा के लिए निर्वाचित होने वाली पहली महिला सांसद जयपुर के पूर्व राजघराने की महारानी गायत्री देवी थीं। इनके अलावा राजस्थान की राजनीति में जिन महिलाओं का अहम स्थान है, उनमें वसुंधरा राजे, सुमित्रा सिंह, कमला बेनीवाल, लक्ष्मीकुमारी चूंडावत, डॉंगिरिजा व्यास ., विद्या पाठक, बीना काक, ममता शर्मा, 14वीं विधान सभा में सबसे कम उम्र की पहली बार 25 वर्ष की उम्र में विधायक बनी जर्मींदारा पार्टी की कामिनी जिंदल आदि नाम शामिल है। सबसे ज्यादा नौ बार विधायक बनने का कीर्तिमान सुमित्रा सिंह के नाम है, जबकि लक्ष्मीकुमारी चूंडावत प्रख्यात साहित्यकार थीं।

राज्यसभा में प्रदेश का सर्वप्रथम प्रतिनिधित्व करने वाली श्रीमती शारदा भार्गव लगातार तीन कार्यकाल तक राज्य सभा सदस्य रहीं है। नवंबर 2004 से जून 2007 के बीच राजस्थान में एक ही समय तीनों सर्वोच्च संवैधानिक पदों राज्यपाल, मुख्यमंत्री और विधान सभा अध्यक्ष पर महिलाएं विराजमान रही। उस समय प्रतिभा पाटिलराज्यपाल-, वसुंधरा राजे मुख्यमंत्री तथा सुमित्रा सिंह विधान सभा की अध्यक्ष थीं।-

इनके अतिरिक्त डॉउजला अरोड़ा ., श्रीमती विद्या पाठक, सुश्री पुष्पा जैन, श्रीमती गौरी पूनिया, श्रीमती मदन कौर, श्रीमती बीना काक, श्रीमती नगेंद्र बाला, श्रीमती इंदिरा मायाराम, श्रीमती तारा भंडारी एवं श्रीमती जकिया, साफिया जुबेर, जाहिदा खान आदि महिला विधायकों ने अपनी उपस्थिति का प्रभावशाली बोध कराया है। युवा महिला जनप्रतिनिधियों में ममता भूपेश, सिद्धि कुमारी, दीया कुमारी, दिव्या सिंह का नाम भी उल्लेखनीय है।

राजस्थान में 1952 से आज तक चौदह विधान सभाएँ गठित हो चुकी हैं। विधान सभा चुनावों में महिलाओं की जीत का ट्रैक रिकॉर्ड पुरुषों की तुलना में बेहतर होने के बावजूद सामान्यतः सभी राजनीतिक दल महिला प्रत्याशी बनाने में कंजूसी दिखाती रही हैं। वर्तमान प्रदेश सरकार में सिर्फ दो महिला मंत्री ही है।

यद्यपि प्रदेश की जनसंख्या में लगभग आधी महिला जनसंख्या को देखते हुए विधान सभा में महिला प्रतिनिधित्व काफी कम रहा है तथा 33 प्रतिशत आरक्षण की कल्पना से बहुत दूर है। लेकिन विश्व के अन्य देशों के विधानमण्डलों एवं भारतीय संसद में जनसंख्या एवं विधायिका के कुल स्थानों के आनुपातिक महिला प्रतिनिधित्व के तुलनात्मक अध्ययन से यह स्पष्ट निष्कर्ष निकलता है कि न केवल भारतीय संसद में अपितु विश्व के अनेक विकसित माने जाने वाले राष्ट्रों की विधि निर्मात्री संस्थाओं में भी महिला प्रतिनिधियों की संख्या काफी कम रही है। इस आधार पर एक विकासशील देश के एक विषम भौगोलिक परिस्थितियों वाले राजस्थान प्रदेश में महिला प्रतिनिधियों की संख्या को अपेक्षाकृत संतोषजनक कहा जा सकता है।

संख्यात्मक दृष्टि से कम प्रतिनिधित्व होने के बावजूद यदि क्रियाशीलता के स्तर पर देखा जाये तो विषम परिस्थितियों में भी यहां की महिलाओं ने जहां एक ओर स्वाधीनता आंदोलन में पुरुषों के साथ बराबर कदम मिलाकर

सहयोग दिया है, वहीं दूसरी तरफ विधान सभा में अपनी महत्वपूर्ण भूमिका से महिला प्रतिनिधियों ने स्मरणीय हस्ताक्षर छोड़े हैं। राजस्थान की राजनीति में सक्रिय महिलाओं ने अपनी राजनीतिक कुशलता, कार्यक्षमता एवं प्रशासनिक विवेक से सिद्ध कर दिया है कि वे राजनीति के क्षेत्र में पुरुषों से किसी भी दृष्टि से कम नहीं हैं।

निष्कर्ष - कम प्रतिनिधित्व होने के बावजूद प्रदेश की सभी महिला प्रतिनिधियों में पर्याप्त रूचि व सक्रियता के साथ विधानमण्डलीय कार्यवाहियों में भाग लिया है तथा सदन के भीतर तथा बाहर अपने विधायी दायित्वों को पूर्ण उत्तरदायित्व एवं सफलता के साथ पूरा करते हुए नारी जगत के विषय में प्रचलित मिथ्या धारणाओं को खण्डित किया है। इससे इस बात के संकेत मिलते हैं कि जैसेजैसे महिला शक्ति को उचित नेतृत्व वातावरण, आर्थिक स्वतंत्रता, शैक्षिक जागरूकता का परिवेश तथा पर्याप्त संगठन मिलता जायेगा, वैसेविधान सभाओं में अधिक प्रतिनिधित्व वैसे वे प्राप्त करती हुई जनहित कार्यों में सफलतापूर्वक अपनी भूमिका का निर्वहन करने में सफल होंगी।

फिर भी पिछले कुछ समय से भारतीय राजनीति में हो रहे बदलावों तथा इसमें बढ़ती महिला प्रतिनिधित्व एवं सहभागिता से हम यह कह सकते हैं कि महिलाओं में अपने राजनीतिक अधिकारों के प्रति बढ़ती जागरूकता के कारण भारतीय राजनीतिक परिदृश्य

में महिलाओं का योगदान दिनोंदिनों बढ़ रहा है जो कि समावेशी लो-कतांत्रिक व्यवस्था के लिए एक सफल प्रयास है। संविधान ही नहीं, संविधानवाद की भी यह माँग है कि भारतीय समाज, राजनीति तथा मानव के हर क्षेत्र में महिलाओं को व्यावहारिक स्तर पर समान भागीदारी उपलब्ध कराई जाये। राजनीति के नारीवाद विचारकों ने भी महिलाओं की राजनीतिक भागीदारी को वास्तविक लोकतंत्र की स्थापना हेतु अनिवार्य बताया है। इसलिए भी भारतीय राजनीति में महिलाओं की भूमिका एवं योगदान महत्वपूर्ण हो जाता है।

बहरहाल यह कहा जा सकता है कि महिलाओं को अपने संघर्ष की लड़ाई खुद को लड़नी होगी। पुरुष प्रधान समाज में विकास की नई लकीर खींचने से ही वे समाज में अपना स्थान बना सकेगी। भारत की राजनीतिक सहभागिता में महिलाओं की भूमिका को बढ़ावा देने की आवश्यकता है तथा ऐसा करना भारतीय लोकतंत्र की प्रभावशीलता हेतु भी अनिवार्य प्रतीत होता है।

महात्मा गांधी का कहना है कि, “आधी आबादी यानि महिलाओं की सक्रिय सहभागिता के अभाव में हमारे सभी कार्य बीच में ही रुक जाते हैं (लक्ष्य), वे पूरे नहीं हो पाते हैं। अतः देश के आर्थिक, सामाजिक, शैक्षणिक आदि विकास हेतु महिलाओं की राजनीति, नीति निर्माण एवं उसके क्रियान्वयन में भागीदारी बिना समतामूलक समाज के निर्माण की परिकल्पना अधुरी है।” इस संदर्भ में यह ज्ञातव्य है कि राजनीतिक सहभागिता मात्र एक राजनीतिक अधिकार नहीं वरन् एक महत्वपूर्ण आधारभूत अधिकार है, जिसके माध्यम से महिला विकास को संकल्पना को साकार किया जा सकता है।

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पशुधन का अर्थशास्त्र : एक विश्लेषण

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भारत दुग्ध उत्पादन में विश्व में पहले, मत्स्य उत्पादन में दूसरे, अंडा उत्पादन में तीसरे और मांस उत्पादन में सातवें स्थान पर है। कृषि क्षेत्र से जहां हम मात्र 1-2 प्रतिशत वृद्धि दर प्राप्त कर रहे हैं वहीं पशुधन से 4-5 प्रतिशत। देश की कुल राष्ट्रीय आय का 10 प्रतिशत हिस्सा पशुधन से आता है। आंकड़ों से जाहिर है कि किसानों का आर्थिक सहारा होने के साथ-साथ पशुपालन का कारोबारी महत्व भी काफी अधिक है। दुग्ध उत्पादों से लेकर मांस के निर्यात में अपार संभावनाएं हैं। यही नहीं बल्कि लघु उद्योग के तौर पर भी पशुपालन को बढ़ावा दिए जाने की पहल की जा सकती है। तमाम संभावनाओं के बीच पशुधन का अर्थशास्त्र गड़बड़ा रहा है चूंकि इस दिशा में सबसे बड़ी खामी या कभी नीतिगत स्तर पर पशुधन के विकास के प्रयासों की हैं।

सरकार ने जब वित्तवर्ष 2016-17 की दूसरी तिमाही में सकल घरेलू उत्पाद के अनुमान जारी किए थे। सरकार के इन आंकड़ों से जो सबसे ज्यादा चौंकाने वाली बात सामने आई वह यह कि कृषि क्षेत्र कुल जीडीपी में पशुधन की हिस्सेदारी खेतीबाड़ी से अधिक हो गई है। खेतीबाड़ी से होने वाली आमदनी की हिस्सेदारी पचास फीसदी से भी नीचे चली गई है जबकि पशुधन से होने वाली कमाई का हिस्सा कृषि क्षेत्र की कुल आमदनी में 51 फीसदी हो गया है। यह बताता है कि किसानों की निर्भरता खेती की बजाय पशुपालन पर तेजी से बढ़ रही है। यानी किसानों को लगने लगा है कि पशुपालन के जरिए उनकी आमदनी ज्यादा तेज रफ्तार से बढ़ सकती है।

ऐसा होने की एक मूल वजह यह है कि बीते कुछ वर्षोंमें खेती करने की लागत ज्यादा तेजी से बढ़ी है। साथ ही खेतीबाड़ी में बारिश की स्थिति, कृषि उत्पादों की कीमत में उतार-चढ़ाव जैसे जोखिम भी इधर तेजी से बढ़े हैं जबकि पशुपालन में ऐसा जोखिम काफी कम है। संभवतः यही वजह है कि पशुधन की महत्ता बढ़ी है और सहायक व्यवसाय के तौर पर किया जाने वाला पशुपालन अब पूरे तौर पर अलग व्यवसाय का रूप लेता जा रहा है यानी देश की अर्थव्यवस्था में अब पशुपालन का महत्व बढ़ रहा है। भले ही कृषि अर्थव्यवस्था में पशुपालन की हिस्सेदारी ने बढ़त बना ली है। लेकिन अभी भी इसका अर्थशास्त्र उतना सरल नहीं है। हम अक्सर खाद्य उत्पादों की कीमतों को लेकर चिंता व्यक्त करते हैं। कृषि की लागत बढ़ने के लिए खाद से लेकर बीज की कीमतों में वृद्धि पर चर्चा होती है। अर्थव्यवस्था के विकास को लेकर होने वाली किसी भी बहस में आमतौर पर इन मुद्दों पर प्रमुखता से चर्चा होती है। लेकिन पशुपालन के क्षेत्र में आ रही दिक्कतों, उनके शोध की धीमी रफ्तार, चारे की बढ़ती कीमत, पशुओं के इलाज की सुविधाओं और अन्य देशों के मुकाबले पशुओं की उत्पादकता सार्वजनिक बहस का हिस्सा नहीं बनते। जबकि आंकड़े स्पष्ट कर रहे हैं कि कृषि क्षेत्र की आमदनी में पशुपालन से होने वाली आमदनी अब खेतीबाड़ी पर हावी हो रही है।

भारतीय अर्थव्यवस्था में कृषि एवं पशुपालन का हमेशा से विशेष महत्व रहा है। आंकड़ों के हिसाब से देखें तो पूरी दुनिया में कुल गायों की आबादी की 15 प्रतिशत भारत में हैं जबकि भैंसे 55 प्रतिशत हैं। देश के कुल दुग्ध उत्पादन का 53 प्रतिशत भैंसों व 43 प्रतिशत गायों से प्राप्त होता है। गायों और भैंसों की इस संख्या की बदौलत भारत लगभग 1465 लाख टन दुग्ध उत्पादन करके विश्व में पहले स्थान पर है।

गाय और भैंस ही नहीं छोटे, भूमिहीन तथा सीमांत किसान की तो पूरी अर्थव्यवस्था छोटे पशुओं जैसे भेड़-बकरियां, सूअर एवं मुर्गीपालन पर टिकी है। शायद यही वजह है कि दुनिया में बकरियों की कुल संख्या के मामले में भारत का स्थान दूसरा है। साथ ही भेड़ों की संख्या में भारत तीसरे और कुक्कुट संख्या में सातवें स्थान पर है। कम खर्च में, कम स्थान एवं कम मेहनत से ज्यादा मुनाफा अर्जित करने की दिशा में

छोटे पशुओं का योगदान अहम है। यदि सरकार की तरफ से इन पशुओं के पालन से संबंधित नवीनतम तकनीकियों का व्यापक प्रचार-प्रसार किया जाए तो निःसंदेह ये छोटे पशु गरीबों के आर्थिक विकास में महत्वपूर्ण भूमिका निभा सकते हैं।

देश की लगभग 70 प्रतिशत आबादी कृषि एवं पशुपालन पर निर्भर है। छोटे व सीमांत किसानों के पास कुल कृषि भूमि की 30 प्रतिशत जोत है। इसमें 70 प्रतिशत कृषक पशुपालन व्यवसाय से जुड़े हैं जिनके पास कुल पशुधन का 80 प्रतिशत भाग मौजूद है। स्पष्ट है कि देश का अधिकांश पशुधन आर्थिक रूप से निर्बल वर्ग के पास है। भारत में लगभग 19.91 करोड़ गाय, 10.53 करोड़ भैंस, 14.55 करोड़ बकरी, 7.61 करोड़ भेड़, 1.11 करोड़ सूअर तथा 68.88 करोड़ मुर्गी का पालन किया जा रहा है। दूध के बाद अंडा उत्पादन में 53200 करोड़ के साथ भारत विश्व में तृतीय तथा मांस उत्पादन में सातवें स्थान पर है। यही कारण है कि कृषि क्षेत्र में जहां हम मात्र 1-2 प्रतिशत की वार्षिक वृद्धि दर प्राप्त कर रहे हैं वहीं पशुपालन से 4-5 प्रतिशत।

दुधारू और अंडा, मांस देने वाले पशुओं के साथ-साथ कृषि क्षेत्र की अर्थव्यवस्था में बैलों की उपयोगिता भी काफी अधिक है। पशुओं की पिछली गणना के आंकड़ों से स्पष्ट है कि पशुधन में अबल बैलों से जुताई के साथ सामान की ढुलाई, सिंचाई और खेती के अन्य कार्यों में इसकी उपयोगिता बढ़ रही है। पिछले दशकों में खेती में मशीनों के बढ़ते उपयोग के चलते बैलों एवं भैंसों की उपयोगिता घटकर न्यूनतम हो गई थी। लेकिन पशुगणना के ताजा आंकड़ों ने खेती की बदलती सूरत दिखाकर नीति नियामकों को हैरत में डाल दिया है।

भारत की कुल राष्ट्रीय आय का दस फीसदी हिस्सा पशुधन से आता है। इसलिए पहली पंचवर्षीय योजना से ही पशुधन विकास के लिए बजटीय प्रावधान रखा गया था। पशुधन के राष्ट्रीय महत्व को ध्यान में रखते हुए पशुधन के विकास के लिए प्रथम पंचवर्षीय योजना के अंतर्गत आठ करोड़ रुपये की राशि रखी गई थी। समय के साथ इस राशि में उत्तरोत्तर वृद्धि होती गई। वर्तमान संदर्भ में अगर देखें तो वर्ष 2010-11 में पशुधन एवं दुग्ध विकास के लिए केन्द्र की तरफ से 1104 करोड़ रुपये और वर्ष 2011-12 में 1243 करोड़ रुपये खर्च किए गए हैं। हालांकि ग्यारहवीं पंचवर्षीय योजना में पशुधन विकास दर का लक्ष्य छह से आठ फीसदी रखा गया था लेकिन तय लक्ष्य तक नहीं पहुंचा जा सका और पशुधन विकास दर 4.8 फीसदी ही हासिल हो सकी। लिहाजा बारहवीं पंचवर्षीय योजना में ऐसे प्रयास किए जा रहे हैं कि पशुधन विकास दर के पूर्व लक्ष्यों को प्राप्त किया जा सके। इस दिशा में सरकारों द्वारा पशुधन विकास के लिए उपयोगी साबित होने वाली कई नीतियों पर काम किए जाने का प्रावधान है।

किसानों का आर्थिक सहारा बनने के साथ-साथ पशुधन का कारोबारी महत्व भी काफी अधिक है। दुग्ध उत्पादों से लेकर मांस के निर्यात की संभावनाएं दुनिया भर के बाजारों में विद्यमान हैं। देश से 2010-11 में 25408 करोड़ रुपये का निर्यात किया गया। देश में अगर पशुधन के व्यापारिक महत्व को समुचित तरीके से प्रचारित और प्रोत्साहित किया जाए तो निर्यात का यह आंकड़ा कई गुना बढ़ सकता है। इतना ही नहीं बल्कि लघु उद्योग के तौर पर भी एक नई पहल साबित हो सकती है।

पशुधन का महत्व केवल दूध, मांस, अंडा जैसे उत्पादों तक ही सीमित नहीं है। इसके विपरीत ग्रामीण अर्थव्यवस्था में पशुधन की भूमिका कई अन्य वजहों से भी महत्वपूर्ण है। पशुओं से जहां खाद प्राप्त होती है वहीं दूसरी तरफ उनके सींग, खुर व रेशे और चमड़े आदि का इस्तेमाल कई तरह से किया जाता रहा है। यहां तक कि ग्रामीण क्षेत्रों में चल रही लगभग डेढ़ करोड़ बैलगाड़ियां भी ग्रामीण यातायात में अहम योगदान कर रही हैं दुधारू पशुओं के साथ-साथ कृषि क्षेत्र में मत्स्य पालन का भी काफी महत्व है और बड़ी संख्या में किसान इससे लाभान्वित हो रहे हैं। अब तो यह पूरी तरह से एक व्यवसाय में तब्दील होता जा रहा। इसी तरह रोजमर्रा की जिंदगी में शहद के बढ़ते प्रचलन ने किसानों को मधुमक्खी पालन के लिए

भी प्रोत्साहित किया है जो किसानों की आमदनी बढ़ाने में अहम भूमिका निभा रहा है। यह तो जगजाहिर है कि देश के कुल पशुधन में दुधारू नस्लों के पशुओं की हिस्सेदारी सर्वाधिक है। इस नजरिए से दुग्ध उत्पादन के हर मामले में भारत को आगे होना चाहिए। लेकिन इस संबंध में आंकड़े बिल्कुल उलट हैं। विश्व के अब्बल दर्जे का पशुधन संपन्न देश होने के बावजूद हमारे पास या तो अच्छी नस्ल के दुधारू पशु नहीं हैं या होने के बावजूद हम दुग्ध उत्पादन में अपेक्षित रफ्तार से वृद्धि नहीं कर पा रहे हैं। सरकारी आंकड़ों के मुताबिक सालाना प्रति गाय से औसतन करीब 1108 किलो और प्रति भैंस से 1531 किलो दूध का उत्पादन होता है। जबकि अमेरिका जैसे विकसित देशों में तो अच्छी नस्ल की गाय प्रति वर्ष करीब 6000 लीटर दूध देती है।

इस दिशा में सबसे बड़ी खामी नीतिगत स्तर पर पशुधन के विकास के प्रयासों की है। उन्नत किस्म की नस्लों के विकास के साथ-साथ गाय भैंस जैसे दुधारू पशुओं की उत्पादकता बढ़ाने के काम सरकार की प्राथमिकता में नहीं हैं। इसी तरह सबसे बड़ी कमी पशुओं के स्वास्थ्य का एक व्यापक और उन्नत पद्धति तैयार करने की है। किसानों में तो जागरूकता का अभाव है ही, लेकिन पशुओं की चिकित्सा के लिए केंद्रों की उपलब्धता भी बड़ी समस्या है। छोटे और सीमांत किसानों के लिए यह समस्या और विकट हो जाती है क्योंकि उनके पास पशुओं के लिए इलाज का एकमात्र सहारा सरकारी चिकित्सा केंद्र ही है।

इन सबके बावजूद पशुधन आज की तारीख में किसानों की अर्थव्यवस्था का मुख्य आधार बनता जा रहा है। लेकिन इसके विकास में मददगार साबित हो सकने वाले क्षेत्रों में काम नहीं होने के चलते पशुधन का अर्थशास्त्र बिगड़ रहा है। पशुओं के लिए चारा उपलब्ध कराना आज भी किसानों के लिए बड़ी चुनौती साबित हो रहा है। पौष्टिक चारे की देश में कमी के चलते इसकी कीमतें लगातार बढ़ रही है। ऐसे पशुपालक के लिए जानवरों को पौष्टिक चारा उपलब्ध कराना मुश्किल हो रहा है। इसका असर पशुओं की उत्पादकता पर पड़ रहा है। योजना आयोग के आंकड़ों पर भरोसा करें तो देश में केवल पांच प्रतिशत कृषि भूमि ही चारे के उत्पादन के लिए इस्तेमाल होती है। फलस्वरूप भारत सूखे चारे के मामले में 11, हरे और ताजा चारे के मामले में 35 और पौष्टिक व मिश्रित चारे के मामले में 28 फीसदी कमी का सामना कर रहा है।

पशुपालन से जुड़ी पूरी अर्थव्यवस्था इन परेशानियों से निजात मिलने का इंतजार कर रही है। साथ ही पशुधन का अधिकाधिक लाभ लेने के लिए जरूरी है कि देश में इससे जुड़े उद्योगों का विकास भी तेजी से हो। दुग्ध उत्पादन का लाभ लेने के लिए डेयरी उद्योग का विकास मददगार साबित हो रहा है। लेकिन यह जरूरी है कि इस उद्योग को किसान की पशुओं से जुड़ी समस्याओं के समाधान के लिए भी आगे आना होगा। वह चाहे फिर पशुओं के स्वास्थ्य से संबंधित हो या फिर उनकी नस्ल को उन्नत बनाने के लिए। इसके बिना देश में उन्नत पशुधन की रफ्तार बढ़ाना बेहद मुश्किल होगा।

साहित्य में स्त्री विमर्श का भविष्य और प्रगति की असीम संभावनाएं

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शोध सार

नारी मानव की सृजनशक्ति-, पालनपोषण की उत्तरदायिनी तथा उसके उन्नयन की एक मात्र आधार रही है। वह समस्त - विधाओं व कलाओं के साथ देवी स्वरूपा कही गयी है। 'यस्य नार्यस्तु पूज्यन्ते रमन्ते तत्र देवता' द्वारा जहाँ उसकी महत्ता प्रतिपादित की गयी है वहीं 'ताड़न का अधिकारी', 'नारी कुंड नरक का' कह कर उसकी निन्दा भी की गयी है, जिसका हिंदी साहित्य में कई महिला साहित्यकारों ने विरोध किया है।

लेकिन स्त्री विमर्श का मूल स्वर प्रतिशोधात्मक नहीं है। यह वस्तुतः-स्त्री की मुक्ति कामना, बराबरी, सामाजिक न्याय, स्वत्वबोध एवं अस्मिता का ही स्वर है। स्त्रीविमर्श यह मानकर चलता है कि स्त्री अधिकार एवं स्वत्वबोध के विपक्ष में खड़े होने के - लिए जिम्मेदार पुरुष नहीं है, अपितु पितृसत्तात्मक सिद्धान्तों पर आधारित वह व्यवस्था है जिसके लिए मशहूर महिला रचनाकार अनामिका जी कहती हैं- "स्त्री आन्दोलन पितृसत्तात्मक समाज में पल रहे स्त्री सम्बन्धी पूर्वाग्रहों से पुरुष की कमिक मुक्ति को असम्भव नहीं मानता, दोषी पुरुष नहीं, यह पितृसत्तात्मक व्यवस्था है जो जन्म से लेकर मृत्यु तक पुरुषों को लगातार एक ही पाठ पढ़ाती है कि स्त्रियाँ उनसे हीनतर हैंसाधन मात्र आन्दोलन की सार्थकता इसमें है कि उनके भोग का . वहाँजहाँ मानदण्ड दोहरे -वहाँ अंगुली रखें जहाँ- हैं, विरूपण, प्रक्षेपण, विलोपना"

मूल शब्द - पितृसत्तात्मक, विमर्श, पातिव्रत्य, अज्ञानता।

परिचय - प्राचीन काल से वर्तमान तक उसकी स्थिति में अनेक परिवर्तन हुए। नारी का सम्मान पुरुषों के सदृश ही था। वह स्वतन्त्र, मुक्त, उच्चतम शिक्षा ग्रहण करती थी। साथ ही धार्मिक कार्यों से लेकर राजनीति तक प्रत्येक क्षेत्र में कुशल स्वतन्त्रचेता तथा आत्मनिर्भर थी। नारी को इस युग में एक 'रत्न' की संज्ञा से सुशोभित किया गया है, परन्तु उत्तर वैदिक काल में उसकी स्थिति दुर्बल होती चली गयी। पुरुषों को परिवार का रक्षक मानने का दृष्टिकोण प्रारम्भ हो गया। रामायण काल में कन्याओं को अमांगलिक तो नहीं वरन् चिन्ता का कारण माना गया। महाभारत काल में उसे पातिव्रत्य धर्म की शिक्षा के अन्तर्गत पति को देवता, प्रभु गुरु तथा सर्वस्व बताया गया। उसका अधिकार क्षेत्र सीमित होने लगा। बौद्ध, जैन युग में उसे सम्मान व अधिकार तो प्राप्त था परन्तु यह सब उस पर कृपा मात्र ही था। मुसलमानों के आगमन पर नारी की दशा बहुविवाह-, बालविवाह-, सतीप्रथा आदि कारण कारुणिक वृशोचनीय होती गयी। सही अर्थों में इस काल को 'निकृष्टतम काल' भी कहा जा सकता है।

आधुनिक काल तक आतेआते नारी की स्थिति वैदिक काल के बिल्कुल विपरीत हो गयी। अन्धविश्वास-, निरक्षरता तथा अज्ञानता ने उसे इस स्थिति तक पहुँचाया जिसे देखकर दयानन्द सरस्वती, गोविन्द रानाडे, ईश्वरचन्द विद्यासागर, राजा राममोहनराय तथा महात्मा गाँधी जैसे समाजसुधारकों ने नारी की दशा सुधारने के लिए प्रयत्न किये गये जिसके फलस्वरूप उसकी स्थिति सुधरी तथा वह - आज की नारी के रूप में उपस्थित हुई।

वास्तव में क्या है स्त्री विमर्श-? समाज का वह कौन सा सत्य है जो नारी को सदैव सुखियों में रखता है? कल भी और आज भी। आज स्त्री को लेकर बहस छिड़ी हुई है, उसकी स्थिति को अनेक कोणों से परखा जाता है। समकालीन रचनाकारोंमन्नु भण्डारी -, कृष्णा सोबती, शिवानी, प्रियम्बदा, मेहरून्सिसा परवेज, मोहन राकेश, श्री कान्त वर्मा, लक्ष्मी कान्त वर्मा और रमेश उपाध्याय आदि ने स्त्री के अनेक रूपों को अपनी रचना का विषय बनाया है। इन रचनाकारों ने जहाँ एक ओर परम्परागत जीवनमूल्यों-, नारी व पुरुष के अधिकारों व नैतिक मूल्यों के विघटन के सन्दर्भ में नारी की पीड़ा को व्यक्त किया है, वहीं दूसरी ओर आवश्यकतानुसार परिवर्तन करके

उसके प्रति सहानुभूति भी व्यक्त करने का सजग प्रयास किया है। ये सभी रचनाकार आधुनिकता बोध से जुड़े तथा समसामयिक समस्याओं से संघर्ष करते हुए स्त्री पात्रों का सजीव चित्रण करने में पूरी तरह सक्षम हैं।

नारी प्रारम्भ से ही साहित्यकारों की प्रेरणदायिनी शक्ति रही है। अतः उन्होंने अनेक सामाजिक परिवर्तनों तथा परिस्थितियों के वैभिन्न्य के कारण उसके विविध रूपों को प्रस्तुत किया है। वास्तव में किसी भी साहित्य में विषय बोध अपने-सामाजिक परिवेश से अलग नहीं हो सकता। परम्परा, संस्कृति, मूल्य, आदर्श, नियमबोध में विद्यमान रहते। समकालीन -सभी निश्चित रूप से विषय निषेध-हिन्दी साहित्य आधुनिकता बोध का साहित्य है। आधुनिकता बोध से आशय अपने समसामयिक परिवेश, युगीन -सन्दर्भों एवं जीवन -मूल्यके प्रति सजगता दिखाने से है। अतः आधुनिकता बोध से प्रभावित होकर ही समकालीन साहित्यकार स्त्री की बदलती हुई सामाजिक, आर्थिक स्थिति पर साहित्य सृजन करने के लिए प्रेरित हुए हैं।

आज साहित्य में स्त्री धीरे विकासोन्मुख है। स्त्री सम्बन्धी जो-विमर्श की स्थिति धीरे-धारणायें, जो मुद्दे अब तक नैपथ्य में पड़े हुये थे और पर्दा खिंचा हुआ था, वे एकधर्मिता में-करके बाहर आ रहे हैं और अपनी उपस्थिति दर्ज करा रहे हैं। आज की रचना एक-स्त्री जाति से अपने समुदाय के भीतर सहभागिता एवं सहानुभूतिपूर्ण व्यवहार की अपेक्षा तथा पुरुष-वर्चस्व को चुनौती देने का भाव परिलक्षित होता है। सृजन और सहनशीलता स्त्री जाति के वे गुण हैं जो समाज को प्रगति के पथ पर अग्रसर करने में सहयोग करते हैं। मानवजीवन में जो कुछ भी सुन्दर एवं महत्वपूर्ण है सिर्फ नारी ही उसकी संरक्षिका है। नारी अब अबला नहीं-, सबला और सर्वसक्षम है। वे अपने अधिकारों की प्राप्ति के लिए सजग, सतर्क और समर्थ है। पुरुष प्रधान

समाज ने उसके कार्य क्षेत्र को सीमित कर जो लक्ष्मण रेखा खींच दी थी, अब वे उससे बाहर निकलकर पुरुषों के कन्धे से कन्धा मिलाकर समाज के प्रत्येक क्षेत्र में अपनी अग्रणी भूमिका निभा रही है। नारी अब अबला शब्द बर्दाश्त नहीं करना चाहती। 'महाशक्ति का अंश' में वह कहती है-

'अबला, बेचारी शब्द मिटा दो-

दुर्गाचण्डी सा बनना है-'

सच तो यह है कि आज की नारी इतनी जागरूक हो गयी है कि उसे दया, करुणा, हमदर्दी से बहलाया नहीं जा सकता। आज के लेखन में भी अब स्त्री की ऐसी जीवन्त कथायें वर्णित की जाती हैं, जिनसे प्रेरणा पाकर कोई भी नारी अपना अस्तित्व पहचानने तथा अपनी अस्मिता की रक्षा के लिये तत्पर हो सकती है। आज के बदलते हुये परिवेश में, बने दबाव से यह सम्भव हुआ है कि स्त्रियों की परतन्त्रता को दूर करने का निरन्तर प्रयास किया जा रहा है। उपन्यास सम्राट 'प्रेमचन्द' ने नारी को पुरुष से श्रेष्ठ मानते हुये लिखा है-

"मैं प्राणियों के विकास में नारी को पुरुषों के पद से श्रेष्ठ समझता हूँ।"

छायावादी कवियित्री महादेवी जी ने नारी को इस परतन्त्रता से मुक्ति दिलाने का पूरा प्रयास किया है। उन्होंने अधिकार -विहीन, भविष्यहीन और दयनीय नारी को पुरुष की क्रूरता, अन्याय और अत्याचारों का शिकार बनते देखा था, नारी की यह सोचनीय स्थिति ही उनकी प्रतिक्रिया का कारण बनी और वे नारी मुक्ति की समर्थक तथा उसके अधिकारों की पक्षपाती हो गयीं। महादेवी जी की नारी स्वाभिमान से भरी प्रेयसी भी है और पथवी जी स्वयं कवियित्री और नारी हैप्रदर्शिका भी। महादे-, नारी वेदना की अनुभूति उन्हें भी -मिली है, इसके फलस्वरूप उस अनुभूति की अभिव्यक्ति में अधिक स्वभाविकता, वास्तविकता एवं वैयक्तिकता है। वैयक्तिक अनुभूति के कारण भारतीय नारी के करुणापूर्ण परतन्त्रता के चित्रों के अंकन में उन्हें पूर्ण सफलता मिली है-

"उड़ गया जब गन्ध उन्मन बन गया तब सर अपरचित, हो गयी कलिका विरानी निठुर वह मेरी कहानी।"

वे नारी की मुरझायी पलकों से झरते हुये आंसू कण देखने की तीव्र-लालसा व्यक्त करती हैं तथा सुगन्धित पवन को नहीं, दुख के घूंट पीती हुई एक दारुणविमर्श है-को देखने की अभिलाशा प्रकट करती हैं। वास्तव में यही उनकी कविता में स्त्री स्त्री-, जो इन शब्दों में व्यक्त होता है-

"कह दे माँ अब क्या देखूँ!

देखूँ खिलती कलियाँ या प्याले सूखे अधरों के,
तेरी चिर! यौवन सुषमा या जर्जर जीवन देखूँ।"

अतः यह निश्चित है कि महादेवी जी की कविता में नारी को अत्यधिक महत्व प्रदान किया गया है, उसे मानव की असीम एवं अमोघशक्ति स्वीकारा गया है और उसे सर्वमंगलमयी, सर्वशक्तिमयी सृष्टि की अनुपम कृति समझा गया है। महादेवी जी की दृष्टि में नारी त्याग, बलिदान, साधना आदि की साकार मूर्ति है और अमोघशक्ति का भण्डार भी है।

वस्तुतः वात्स्यायन के कामसूत्र, बौद्धकालीन थेरीगाथा, मध्यकालीन सूरदास, मीरा इत्यादि से होकर महादेवी तक स्त्रीविमर्श - का एक लम्बा इतिहास भारत वर्ष में है। नवोत्थान काल में राजा राम मोहनराय, विद्यासागर, दयानन्द सरस्वती इत्यादि के प्रोत्साहन तथा प्रेरणा से नारी मुक्ति एवं उसके अधिकारों के प्रति सजगता लाने के उपक्रम हुये। इस दृष्टि से विभिन्न संगठनों की स्थापना तथा पत्र-पत्रिकाओं के प्रकाशन समानान्तर चले। भारतेन्दु ने स्त्री शिक्षा के लिए बालबोधिनी शीर्षक पत्रिका का सम्पादन किया था। हिन्दी साहित्य में नारी अधिकारों को वाणी देने वाली सर्वप्रथम महिला होने का श्रेय बंग महिला को जाता है। इस शृंखला में बंग महिला तथा मीरा की अगली कड़ी के रूप में महादेवी वर्मा जी ही आती हैं। उन्होंने तीस के दशक में 'शृंखला की कड़ियाँ' में नारी अधिकार एवं नारी मुक्ति की जो आवाज उठायी थी, वह स्त्रीविमर्श को पश्चिमी नकल मात्र मानने वाले तर्क को निराधार सिद्ध करती हैं। आज नारी मुक्ति के - चेतना में बदलाव की स्थि-सन्दर्भ में स्त्रीको महसूस किया जा सकता है। 'राजविनय शर्मा' "मेरो दरद न जाणै कोय" शीर्षक के अन्तर्गत लेख में लिखते हैं-

"कोई तुम्हें एक्सेप्ट नहीं करता, मत करने दो,
तुम खुद को एक्सेप्ट करो।"

यह पक्तियाँ निश्चित तौर पर नारी शक्ति को उजागर करती हैं। ऐसे लेख अतीत को भूल कर वर्तमान के साथ सामन्जस्य बैठाने की प्रेरणा देते हैं और भविष्य के प्रति उम्मीद का भाव जाग्रत करते हैं। इन भावों में स्त्री से अपनी अस्मिता की पहचान बनाने का आग्रह भी निहित है। 'एक जमीन अपनी', 'आवाँ' जैसे उपन्यासों में नारी मुक्ति, नारी की दशादिशा और छवि -बहुत सारे मुद्दों पर विचारविमर्श - करते हुये विभिन्न लेखिकाओं ने बहुत से प्रश्न उठाए हैं।

निष्कर्ष - स्त्रीविमर्श का मूल स्वर प्रतिशोधात्मक नहीं है। यह वस्तुतः स्त्री की मुक्ति कामना-, बराबरी, सामाजिक न्याय, स्वत्वबोध एवं अस्मिता का ही स्वर है। स्त्री विमर्श यह मानकर चलता है कि स्त्री अधिकार एवं स्वत्वबोध के विपक्ष में खड़े होने के लिए जिम्मेदार-पुरुष नहीं है, अपितु पितृसत्तात्मक सिद्धान्तों पर आधारित वह व्यवस्था है जिसके लिए मशहूर महिला रचनाकार अनामिका जी कहती हैं- "स्त्री आन्दोलन पितृसत्तात्मक समाज में पल रहे स्त्री सम्बन्धी पूर्वाग्रहों से पुरुष की कमिक मुक्ति को असम्भव नहीं मानता, दोषी पुरुष नहीं, यह पितृसत्तात्मक व्यवस्था है जो जन्म से लेकर मृत्यु तक पुरुषों को लगातार एक ही पाठ पढ़ाती है कि स्त्रियाँ उनसे हीनतर हैं। उनके भोग का साधन मात्र आन्दोलन की सार्थकता इसमें है कि वहाँजहाँ मानदण्ड दोहरे हैं-वहाँ अंगुली रखें जहाँ-, विरूपण, प्रक्षेपण, विलोपन।"

अतः आवश्यकता आज यह है कि प्रकृति से जुड़कर साहित्य में नारी की स्थिति में परिवर्तन लाया जाये। नारी संस्कार से जुड़े, अपनी स्वाभाविकता से जुड़े और जुड़कर विश्व में, समाज में शक्ति का एक पर्याय बन जाये। नारी का सृष्टि के प्रारम्भ से ही महत्वपूर्ण स्थान रहा है। उसके योगदान के अभाव में संस्कृति की कल्पना ही अधूरी है। नारी सदैव पुरुष की प्रेरणादायिनी शक्ति रही है।

निष्कर्षतः नारी सम्बन्धी समग्र विमर्श के परिप्रेक्ष्य में यह कहा जा सकता है कि वह स्वयं आज परम्परागत व प्राचीन मान्यताओं को अस्वीकार कर नवीन जीवनमूल्यों की स्थापना करते हुये सीमित धरातल को त्यागकर विश्व के विस्तृत प्रांगण में - पथ पर अग्रसर है। नारी में-विचरण की स्वाभाविक लालसा मन में संजोये जीवन युगानुरूप नवचेतना की प्रवृत्ति के साथ सामाजिक अधिकार, आत्म सम्मान की भावना, आत्मस की प्रवृत्ति समाविष्ट हुई है। निर्भरता एवं आत्मविश्वा -, जिससे उसने राष्ट्र समाज और जीवन के विकास में पुरुष के साथ अपना महत्व सिद्ध कर दिया है।

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भारताच्या आंतरराष्ट्रीय व्यापारशर्तीतील प्रवृत्ती

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व्यापारशर्ती ही संकल्पना आंतरराष्ट्रीय व्यापारामध्ये महत्वपूर्ण संकल्पना आहे. व्यापारशर्तीच्या आधारे आंतरराष्ट्रीय व्यापार एखाद्या देशाला अनुकूल आहे की प्रतिकूल आहे हे निश्चित करता येते. आंतरराष्ट्रीय व्यापार सिध्दांतामध्ये अनेक अर्थशास्त्रज्ञांनी व्यापारशर्तीच्या आधारे व्यापार अनुकूलता स्पष्ट केली आहे. जे. एस. मिल यांनी अन्वोन्य मागणीच्या सिध्दांतामध्ये आंतरराष्ट्रीय व्यापारशर्ती या एका देशातील उपभोक्त्यांच्या दुसऱ्या देशातील वस्तूसाठी असलेल्या मागणीच्या लवचिकतेवर अवलंबून असतात असे सांगितले आहे. तर अल्फ्रेड मार्शल यांनी व्यापारशर्ती मागणी बरोबरच वस्तूच्या पुरवठ्याच्या लवचिकतेवर देखील अवलंबून असतात असे सांगितले. व्यापारशर्ती हे व्यापारापासून मिळणाऱ्या लाभाचे मोजमाप करण्याचे एक तंत्र आहे.

व्यापारशर्तीचा अर्थ:

व्यापारशर्ती म्हणजे एखाद्या देशातील निर्यात वस्तूच्या किंमतीचे आयात वस्तूच्या किंमतीशी असलेले प्रमाण होय. व्यापारशर्तीचे मापन करण्यासाठी आयात वस्तूचा निर्देशांक आणि निर्यात वस्तूचा निर्देशांक माहित असणे आवश्यक असते. त्यावरून व्यापारशर्तीचे मोजमाप करून त्या अनुकूल आहेत की प्रतिकूल आहेत हे निश्चित करता येते.

एखाद्या देशाच्या व्यापारशर्ती अनुकूल असतील तर आंतरराष्ट्रीय व्यापार त्या देशाला फायदेशीर असतो. याउलट व्यापारशर्ती प्रतिकूल असतील तर आंतरराष्ट्रीय व्यापार त्या देशाला तोट्याचा असतो.

व्यापारापासूनचे लाभ मोजण्यासाठी विविध प्रकारच्या व्यापारशर्तीचे मापन केले जाते. त्यामध्ये प्रामुख्याने सकल वस्तूविनिमय व्यापारशर्ती, निव्वळ वस्तूविनिमय व्यापारशर्ती आणि उत्पन्न व्यापारशर्ती ज्या वस्तूविनिमयाशी संबंधित व्यापारशर्ती आहेत यांचा समावेश होतो.

अ) निव्वळ वस्तूविनिमय व्यापारशर्ती: एखाद्या देशाच्या निर्यात किंमत निर्देशांकाचे त्या देशाच्या आयात किंमत निर्देशांकाशी असलेले प्रमाण म्हणजे त्या देशाच्या निव्वळ वस्तूविनिमय व्यापारशर्ती होत. निर्यात किंमत निर्देशांकाचे मापन चालू वर्षातील निर्यातीचे सरासरी मूल्य आणि आधार वर्षातील निर्यातीचे सरासरी मूल्य यांच्याद्वारे निर्धारित केले जाते. तर आयात किंमत निर्देशांकाचे मापन चालू वर्षातील आयातीचे सरासरी मूल्य आणि आधार वर्षातील आयातीचे सरासरी मूल्य यांच्याद्वारे केले जाते. एखाद्या देशास निव्वळ वस्तू विनिमयाच्या व्यापारशर्ती तेंव्हाच अनुकूल असतील जेव्हा त्या देशाद्वारे आयात होत असलेल्या वस्तूच्या किंमतीमध्ये घट होते आणि निर्यात वस्तूच्या किंमतीमध्ये वाढ होते किंवा स्थिर राहतात. याउलट स्थितीमध्ये निव्वळ वस्तूविनिमय व्यापारशर्ती त्या देशाला प्रतिकूल असतील.

ब) सकल वस्तूविनिमय व्यापारशर्ती: व्यापारशर्तीची ही संकल्पना टॉसिंग यांनी सांगितली आहे. सकल वस्तूविनिमय व्यापारशर्ती म्हणजे आयातीच्या भौतिक संख्येशी निर्यातीच्या भौतिक संख्येचे असलेले प्रमाण होय. सकल वस्तूविनिमय व्यापारशर्तीची गणना आयात वस्तू संख्या निर्देशांक व निर्यात वस्तू संख्या निर्देशांक यांच्याद्वारे केली जाते. आयात संख्या निर्देशांकाचे मापन चालू वर्षातील सरासरी आयात वस्तूची संख्या व आधार वर्षातील सरासरी आयात वस्तूची संख्या यांच्या सहाय्याने केले जाते. त्याचप्रमाणे निर्यात संख्या निर्देशांकाचे मापन चालू वर्षातील सरासरी निर्यात वस्तूची संख्या व आधार वर्षातील सरासरी निर्यात वस्तूची

संख्या याद्वारे केले जाते. सकल वस्तूविनिमय व्यापारशर्ती एखाद्या देशाला अनुकूल तेव्हाच असतील जेव्हा निर्यात वस्तूंची संख्या स्थिर असताना आयात वस्तूंच्या संख्येत वाढ झाली असेल.

क) उत्पन्न व्यापारशर्ती : व्यापारशर्तीची ही संकल्पना डोरान्स यांनी मांडली आहे. उत्पन्न व्यापारशर्तीमध्ये निर्यात संख्या निर्देशांक आणि आयात-निर्यात किंमत निर्देशांक समाविष्ट आहेत. या व्यापारशर्तीच्या माध्यमातून एखाद्या देशाची निर्यातीच्या मोबदल्यात आयात करण्याची क्षमता लक्षात येते. या संकल्पनेचे मापन निव्वळ वस्तूविनिमय व्यापारशर्ती व निर्यात किंमत निर्देशांक यांच्याद्वारे केले जाते.

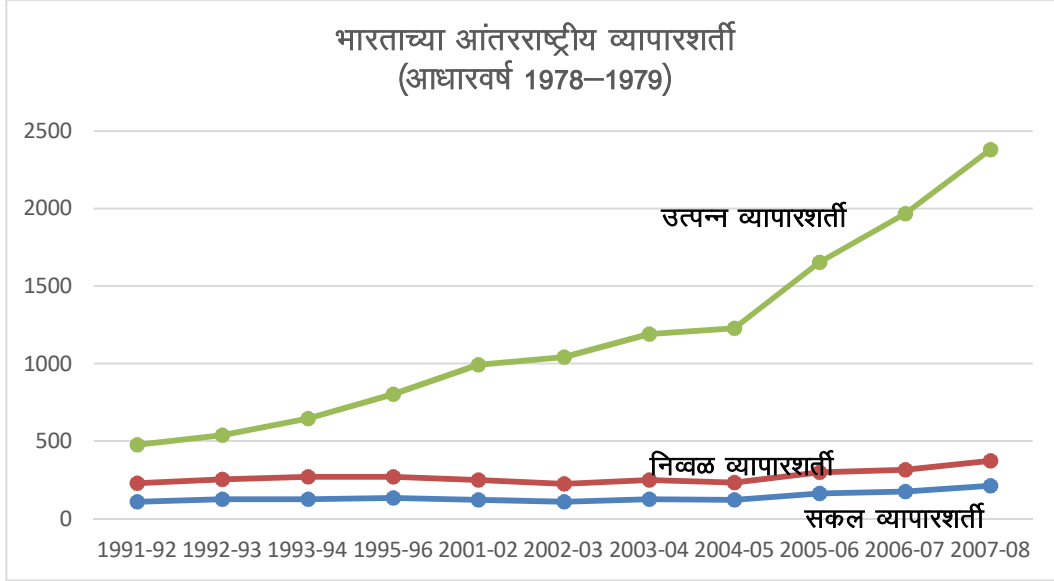
भारताच्या व्यापारशर्ती:

पुढील तक्त्यामध्ये भारताच्या आंतरराष्ट्रीय व्यापारशर्ती दर्शविल्या आहेत. त्यामध्ये सकल वस्तूविनिमय व्यापारशर्ती, निव्वळ वस्तूविनिमय व्यापारशर्ती आणि उत्पन्न व्यापारशर्ती आहेत. व्यापारशर्तीचे मापन करण्यासाठी आधार वर्षाची निवड करावी लागते, ज्याचा किंमत निर्देशांक 100 गृहित धरला जातो. आधार वर्षाच्या किंमत निर्देशांकाचा आधार घेऊन पुढील कालावधीमधील व्यापारशर्तीतील बदलाची प्रवृत्तीचे मापन केले जाते.

अ) भारताच्या सकल, निव्वळ आणि उत्पन्न व्यापारशर्ती (आधार वर्ष 1978-1979) :

वर्ष	सकल व्यापारशर्ती	निव्वळ व्यापारशर्ती	उत्पन्न व्यापारशर्ती
1991-92	109.3	119.5	249.4
1992-93	126.5	127.3	283.8
1993-94	127.8	144.9	373.1
1995-96	134.0	137.9	530.1
2001-02	123.6	125.4	743.4
2002-03	111.0	114.0	819.9
2003-04	126.8	123.3	943.3
2004-05	123.8	110.4	992.6
2005-06	164.1	134.8	1354.7
2006-07	175.9	141.9	1652.2
2007-08	212.1	163.3	2003.7

Source: Handbook of Statistics on the Indian Economy, 2021-22

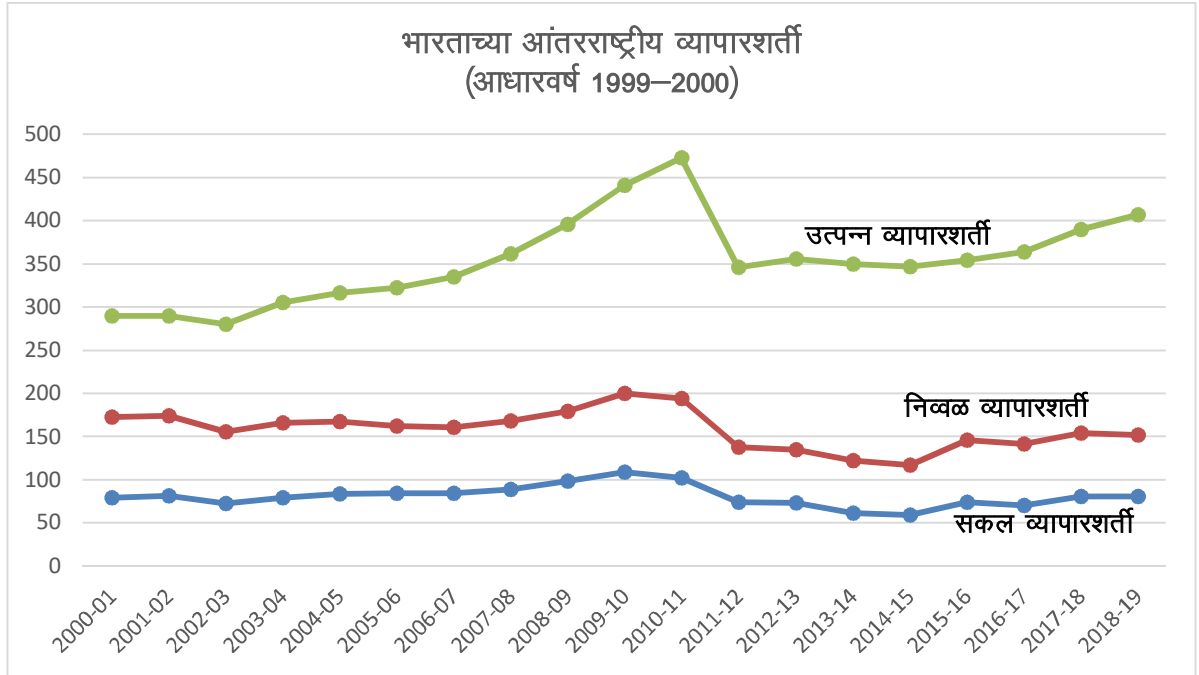


वरील तक्ता व आकृतीमध्ये आधार वर्ष 1978-79 असताना भारताच्या उत्पन्न व्यापारशर्ती, निव्वळ व्यापारशर्ती व सकल व्यापारशर्ती यांची प्रवृत्ती दर्शविली आहे. सन 1991-92 ते 2007-08 या कालावधीमध्ये सकल, निव्वळ व उत्पन्न या तिन्ही व्यापारशर्ती भारतासाठी अनुकूल राहिल्याचे दिसून येते.

ब) भारताच्या सकल, निव्वळ आणि उत्पन्न व्यापारशर्ती (आधार वर्ष 1999-2000):

वर्ष	सकल व्यापारशर्ती	निव्वळ व्यापारशर्ती	उत्पन्न व्यापारशर्ती
2000-01	79.2	93.6	117.0
2001-02	81.7	92.0	115.9
2002-03	72.7	82.8	124.2
2003-04	79.5	86.4	139.0
2004-05	83.8	83.4	149.4
2005-06	84.5	77.7	160.0
2006-07	84.1	76.7	174.1
2007-08	89.0	79.0	193.7
2008-09	98.1	81.2	216.7
2009-10	109.1	91.2	240.7
2010-11	102.3	91.8	279.0
2011-12	74.3	63.1	208.7
2012-13	73.1	61.9	220.9
2013-14	61.6	60.2	227.7
2014-15	59.2	57.9	229.9
2015-16	74.0	72.0	208.0
2016-17	70.3	71.1	222.6
2017-18	80.7	73.3	236.0
2018-19	81.0	71.0	255.0

Source: Handbook of Statistics on the Indian Economy, 2021-22

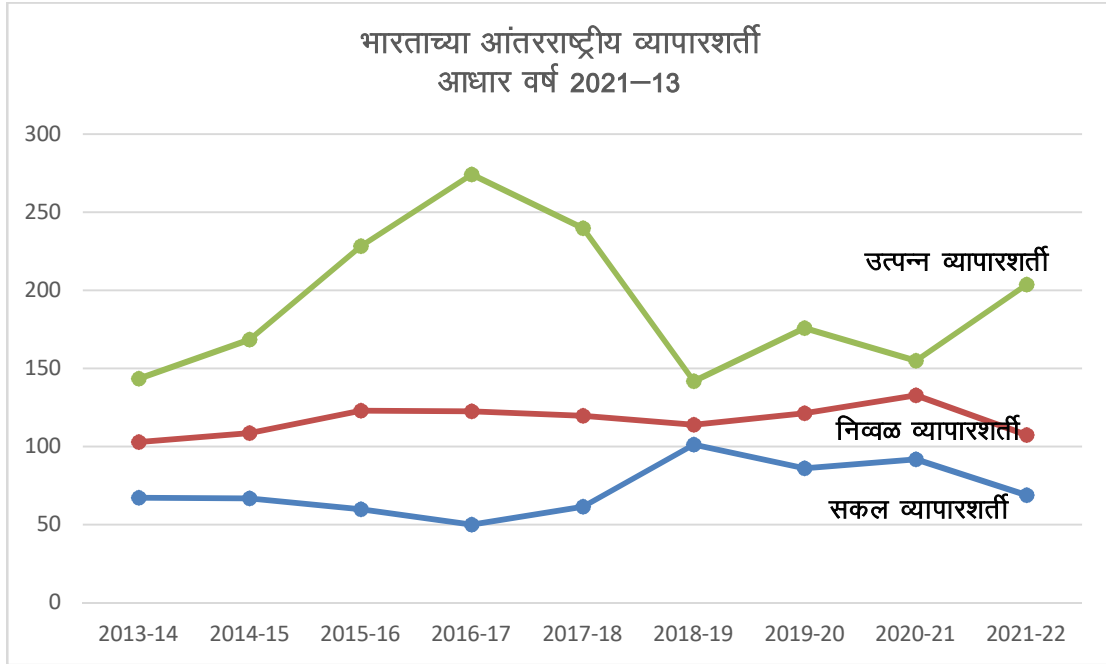


वरील तक्ता व आकृतीमध्ये आधार वर्ष 1999-2000 असताना सन 2000-01 ते 2018-19 या कालावधीतील भारताच्या उत्पन्न व्यापारशर्ती, निव्वळ व्यापारशर्ती व सकल व्यापारशर्ती यांची प्रवृत्ती दर्शविली आहे. सन 2000-01 ते 2018-19 या कालावधीमध्ये सकल व्यापारशर्ती भारतासाठी दोन वर्षे (2009-10 व 2010-11) प्रतिकूल राहिलेल्या आहेत, तर निव्वळ व्यापारशर्ती वरील कालावधीमध्ये प्रतिकूल राहिलेल्या आहेत. उत्पन्न व्यापारशर्ती वरील कालावधीत भारतासाठी अनुकूल राहिल्याचे दिसून येते.

क) भारताच्या सकल, निव्वळ आणि उत्पन्न व्यापारशर्ती (आधार वर्ष 2012-2013):

वर्ष	सकल वस्तूनिमय व्यापारशर्ती	निव्वळ वस्तूनिमय व्यापारशर्ती	उत्पन्न वस्तूनिमय व्यापारशर्ती
2013-14	67.5	103.0	143.5
2014-15	66.9	108.8	168.7
2015-16	60.0	123.1	228.4
2016-17	50.0	122.6	274.4
2017-18	61.6	119.8	239.8
2018-19	101.3	113.9	141.9
2019-20	86.0	121.3	175.9
2020-21	92.0	133.0	154.9
2021-22	68.9	107.6	203.9

Source: Handbook of Statistics on the Indian Economy, 2021-22



वरील तक्ता व आकृतीमध्ये आधार वर्ष 2012-13 असताना भारताच्या 2012-13 ते 2021-22 या कालावधीतील उत्पन्न व्यापारशर्ती, निव्वळ व्यापारशर्ती व सकल व्यापारशर्ती यांची प्रवृत्ती दर्शविली आहे. भारतासाठी सन 2012-13 ते 2021-22 या कालावधीमध्ये सकल व्यापारशर्ती 2018-19 हे वर्ष वगळता प्रतिकूल राहिलेल्या आहेत, तर निव्वळ व उत्पन्न व्यापारशर्ती अनुकूल राहिल्याचे दिसून येते.

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5. Directorate General of Commercial Intelligence and Statistics, Ministry of Commerce and Industry, Government of India.

The Role of Motivation in Advancing Green ICT for Environmental Sustainability

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Abstract:

The field of Information and Communication Technology (ICT) has witnessed significant growth in recent years, accompanied by increasing concerns about its environmental impact. As the world grapples with the challenges of climate change and resource depletion, there is a growing need to harness the potential of ICT for environmental sustainability. Motivation plays a crucial role in driving the advancement of Green ICT initiatives and ensuring their successful implementation. The Motivated individuals and organizations are more likely to adopt and promote sustainable practices in the ICT sector. The concept of motivation encompasses various factors, including economic incentives, environmental awareness, regulatory frameworks, and social responsibility. Through an extensive review of literature and case studies, this study will analyze the different motivational factors that contribute to the development and deployment of Green ICT solutions. Furthermore, it will examine how motivation influences the adoption of energy-efficient technologies, sustainable design practices, recycling and disposal strategies, and the reduction of electronic waste. The findings of this research will shed light on the significance of motivation in driving the transition towards a more sustainable ICT sector. By identifying key motivational factors, policymakers, industry stakeholders, and individuals can formulate effective strategies to promote and incentivize the adoption of Green ICT practices. Ultimately, this research aims to contribute to the advancement of environmental sustainability by harnessing the power of motivation in the realm of ICT.

Keywords:

Green ICT, Environmental sustainability, Motivation, Advancement, Leadership, Organizational Culture, Case Studies, Challenges, Future Directions.

Introduction:

With the rapid advancement of Information and Communication Technology (ICT), there has been a parallel increase in the environmental concerns associated with its usage. The energy consumption, carbon emissions, resource depletion, and electronic waste generated by ICT have raised alarms regarding their sustainability. However, the emergence of green ICT presents a

promising solution to address these environmental challenges. Green ICT refers to the adoption of environmentally friendly practices and technologies in the design, manufacture, use, and disposal of ICT products and services. It encompasses a wide range of strategies, including energy-efficient hardware, sustainable software development, virtualization, cloud computing, and recycling initiatives. By integrating these practices, green ICT has the potential to significantly reduce carbon emissions, minimize resource consumption, and alleviate the environmental impact of ICT. Motivation plays a crucial role in driving the advancement of green ICT for environmental sustainability. Without sufficient motivation, organizations and individuals may not fully embrace the principles and practices of green ICT. Motivation serves as a catalyst, encouraging stakeholders to actively engage in sustainable behaviors and decision-making processes. By understanding the factors that motivate individuals and organizations, we can effectively promote the adoption of green ICT and achieve meaningful progress towards environmental sustainability. There are various sources of motivation that can propel the advancement of green ICT. One key factor is the increasing awareness and concern about the environmental consequences of ICT. As individuals and organizations become more informed about the environmental impact of their actions, they are motivated to seek sustainable alternatives. This awareness can be heightened through educational campaigns, environmental certifications, and government regulations that promote eco-friendly practices in the ICT sector. Another source of motivation is the potential economic benefits associated with green ICT. Energy-efficient technologies and practices can lead to significant cost savings in terms of reduced energy bills, lower maintenance costs, and improved resource management. Organizations are motivated to adopt green ICT not only to reduce their environmental footprint but also to enhance their competitiveness and profitability. Additionally, governments and regulatory bodies can provide incentives such as tax breaks, grants, and subsidies to encourage the adoption of green ICT, further motivating organizations to embrace sustainability. Furthermore, social responsibility and reputational factors play a crucial role in motivating the adoption of green ICT. In today's interconnected world, consumers and stakeholders increasingly value environmentally conscious organizations. By implementing green ICT practices, companies can enhance their brand image, attract environmentally conscious customers, and gain a competitive edge in the market. The desire to maintain a positive reputation and align with societal expectations serves as a strong motivation for organizations to invest in sustainable ICT solutions. The role of motivation in advancing green ICT for environmental sustainability is vital. Motivation serves as a driving force, inspiring individuals and organizations to embrace eco-friendly practices and technologies. Increased awareness, economic benefits, and social responsibility all contribute to the motivation for adopting green ICT. By harnessing this motivation, we can accelerate the transition towards a more sustainable ICT sector, mitigating its environmental impact and fostering a greener future.

Objectives of the study:

- To explore the various motivations and drivers behind the adoption and implementation of Green ICT strategies by organizations.

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- To examine the impact of motivation on the successful implementation and long-term sustainability of Green ICT initiatives.
 - To identify the barriers and challenges that hinders the motivation and adoption of Green ICT practices.
 - To propose strategies and recommendations for enhancing motivation among organizations and individuals to embrace Green ICT for environmental sustainability.

Motivational Factors for Green ICT Adoption:

Motivation plays a crucial role in advancing Green ICT (Information and Communication Technology) for environmental sustainability. By understanding the motivational factors that influence individuals, organizations, and policymakers to adopt and implement green ICT practices, we can effectively promote and drive positive change in this field. These motivational factors can be categorized into intrinsic and extrinsic motivations.

Intrinsic Motivations:

- **A. Environmental Consciousness:** Many individuals and organizations are motivated by a deep concern for the environment and a desire to reduce their ecological footprint. They recognize the impact of ICT on the environment and are driven to adopt green ICT practices to minimize that impact.
- **B. Personal Values:** Some individuals and organizations hold personal values centered on sustainability, social responsibility, and ecological stewardship. These values guide their decision-making processes and motivate them to embrace green ICT as a means to align their actions with their values.

Extrinsic Motivations:

- **A. Cost Savings:** Green ICT practices, such as energy-efficient hardware and optimized data centers, can lead to significant cost savings in terms of energy consumption and operational expenses. The potential for financial benefits acts as a strong motivator for organizations to adopt and implement green ICT solutions.
- **B. Regulatory Pressures:** Government regulations and policies aimed at reducing carbon emissions and promoting sustainable practices can serve as powerful motivators for organizations and policymakers to embrace green ICT. Compliance with regulations and the avoidance of penalties or legal consequences drive the adoption of environmentally friendly technologies.
- **C. Reputation Management:** Adopting green ICT practices can enhance an organization's reputation and brand image. As sustainability becomes increasingly important to consumers, businesses that demonstrate their commitment to environmental responsibility can attract environmentally conscious customers and gain a competitive advantage in the market.

The considering and leveraging these motivational factors, stakeholders can effectively promote the adoption and implementation of green ICT practices. Policies and initiatives that highlight the financial benefits, environmental impact, and social responsibility associated with green ICT can create a conducive environment for change. Additionally, raising awareness about the importance

of environmental sustainability and emphasizing the positive outcomes of green ICT adoption can further motivate individuals and organizations to embrace these practices.

Strategies to Enhance Motivation for Green ICT:

The role of motivation is crucial in advancing Green ICT (Information and Communication Technology) for environmental sustainability. Motivation plays a key role in driving individuals, organizations, and societies to adopt and implement environmentally friendly practices in the ICT sector. By enhancing motivation, we can inspire and empower stakeholders to actively contribute to a greener and more sustainable future. Here are some strategies to enhance motivation for Green ICT:

- **Awareness Campaigns:** Conducting awareness campaigns is an effective way to educate stakeholders about the importance of environmental sustainability in the ICT sector. These campaigns can raise awareness about the environmental impacts of ICT, such as energy consumption, electronic waste, and carbon emissions. By highlighting the potential benefits of Green ICT and showcasing success stories, awareness campaigns can motivate individuals and organizations to embrace sustainable practices.
- **Education and Training Programs:** Providing education and training programs focused on Green ICT can enhance motivation by increasing knowledge and skills. These programs can offer insights into sustainable technologies, energy-efficient practices, and responsible e-waste management. By equipping individuals with the necessary knowledge and skills, they will be motivated to implement green initiatives in their work and personal lives.
- **Incentives and Rewards:** Introducing incentives and rewards can significantly boost motivation for Green ICT. For example, organizations can provide financial incentives or recognition for employees who actively contribute to energy conservation, waste reduction, or the development of sustainable technologies. By recognizing and rewarding environmentally responsible behavior, organizations can create a culture that values and encourages green practices.
- **Collaboration Among Stakeholders:** Collaboration among stakeholders, including government agencies, businesses, academia, and civil society organizations, is vital for advancing Green ICT. By working together, stakeholders can share knowledge, resources, and best practices, fostering a sense of collective responsibility and motivation. Collaborative efforts can lead to the development of innovative solutions, policy frameworks, and industry standards that promote environmental sustainability.
- **Leadership and Organizational Culture:** Effective leadership and an organizational culture that values sustainability are critical for enhancing motivation for Green ICT. Leaders should demonstrate a strong commitment to environmental sustainability and communicate its importance to the entire organization. By fostering a culture that encourages and supports green initiatives, organizations can motivate employees to actively participate in sustainability efforts.

The enhancing motivation for Green ICT requires a multi-faceted approach that encompasses awareness, education, incentives, collaboration, and leadership. By implementing these

strategies, we can inspire individuals and organizations to adopt sustainable practices, reduce their environmental footprint, and contribute to a more eco-friendly ICT sector.

Case Study

Case Study 1: Google

- Motivation plays a crucial role in Google's commitment to advancing green ICT practices for environmental sustainability. The company has set ambitious goals to become carbon-neutral and operate on 100% renewable energy. This motivation stems from Google's core values and its recognition of the environmental challenges posed by ICT.
- To achieve these goals, Google has implemented several green ICT initiatives. One notable example is its data center optimization efforts. Google continuously works to improve the energy efficiency of its data centers by utilizing advanced cooling technologies, optimizing server utilization, and employing machine learning algorithms to optimize power usage. These efforts have resulted in significant reductions in energy consumption and associated greenhouse gas emissions.
- Google actively promotes the use of renewable energy. The company has invested in numerous renewable energy projects worldwide and has committed to purchasing renewable energy at a scale that matches its electricity consumption. This demonstrates its motivation to transition away from fossil fuels and drive the adoption of renewable energy sources in the ICT sector.
- The motivation behind Google's green ICT initiatives extends beyond environmental concerns. The company recognizes that energy-efficient data centers and sustainable practices contribute to operational efficiency and cost savings. By reducing energy consumption, Google not only minimizes its environmental impact but also achieves financial benefits through lower electricity bills and increased resource efficiency.
- Google's motivation-driven green ICT practices have garnered significant benefits. The company has achieved carbon neutrality for its global operations since 2007 and has made substantial progress in sourcing renewable energy. These achievements have enhanced its environmental reputation, attracting environmentally conscious customers and stakeholders. Google's motivation to lead in sustainable ICT practices has also inspired other organizations to prioritize green initiatives, further advancing environmental sustainability in the ICT industry.

Case Study 2: Microsoft

- Motivation has played a pivotal role in Microsoft's efforts to advance green ICT practices and promote environmental sustainability. The company's strong commitment to sustainability is evident through its ambitious targets, including becoming carbon negative by 2030 and removing all historical carbon emissions by 2050.
- Microsoft has implemented various green ICT initiatives to achieve these goals. One notable example is its focus on energy-efficient data centers. The company has designed its data centers to maximize energy efficiency, utilizing advanced cooling techniques, modular designs, and artificial intelligence algorithms for optimizing energy usage. These

efforts have resulted in significant reductions in energy consumption and carbon emissions.

- Microsoft has prioritized renewable energy procurement to power its operations. The company has invested in large-scale wind and solar projects, ensuring that the electricity it consumes is sourced from renewable sources. Microsoft has also launched innovative initiatives like the "AI for Earth" program, which harnesses artificial intelligence to address global environmental challenges, such as climate change, biodiversity loss, and water scarcity.
- Microsoft's motivation to implement green ICT practices has yielded numerous benefits. The company has significantly reduced its carbon footprint and improved operational efficiency. By embracing sustainable practices, Microsoft has gained a competitive advantage, attracting environmentally conscious customers and partners who value the company's commitment to environmental sustainability. Additionally, Microsoft's efforts have inspired other organizations to follow suit, contributing to the overall advancement of green ICT practices for environmental sustainability.
- These case studies demonstrate how motivation plays a critical role in advancing green ICT for environmental sustainability. Organizations like Google and Microsoft have leveraged their motivation to drive significant changes in energy consumption, operational efficiency, and environmental reputation. By setting ambitious goals, investing in renewable energy, and implementing innovative initiatives, these companies have not only reduced their environmental impact but also inspired others to adopt green ICT practices, accelerating the transition towards a more sustainable ICT sector.

Challenges and Future Directions:

Challenges and Barriers:

- **Lack of Awareness:** One of the primary challenges in advancing green ICT for environmental sustainability is the lack of awareness among individuals and organizations. Many people may not be fully aware of the environmental impacts of ICT and the potential benefits of adopting greener practices. This lack of awareness can hinder motivation and prevent proactive action towards sustainability.
- **Resistance to Change:** Another significant barrier is resistance to change. Organizations may be reluctant to invest in green ICT initiatives due to concerns about disruptions to their existing systems and processes. Additionally, individuals may resist adopting new technologies or changing their behaviors due to the comfort and familiarity of existing practices. Overcoming resistance to change requires effective communication, education, and demonstrating the benefits of green ICT solutions.
- **Financial Constraints:** Implementing green ICT practices often requires initial investments in new technologies, infrastructure upgrades, and training programs. Financial constraints can act as a significant barrier, particularly for small and medium-sized enterprises (SMEs) and developing countries. The high upfront costs and uncertain return on investment may discourage organizations from pursuing sustainable ICT

initiatives. Governments, industry associations, and financial institutions can play a crucial role in providing financial support and incentives to overcome these constraints.

- **Policy Gaps:** Inadequate or inconsistent policy frameworks pose a challenge to the widespread adoption of green ICT. Clear and comprehensive regulations are essential to provide a supportive environment for organizations to implement sustainable practices. Policy gaps, lack of enforcement, and inconsistencies across different jurisdictions can create uncertainty and inhibit motivation. Governments need to develop and enforce policies that encourage and reward green ICT practices while ensuring a level playing field for businesses.

Future Directions:

- **Integration of Emerging Technologies:** The integration of emerging technologies such as artificial intelligence, blockchain, and the Internet of Things (IoT) can significantly advance green ICT for environmental sustainability. These technologies offer opportunities for optimizing resource usage, improving energy efficiency, and enabling smart systems. For example, AI algorithms can optimize energy consumption in data centers, while IoT devices can enable real-time monitoring and control of energy usage in buildings. Exploring and harnessing the potential of emerging technologies will be crucial in shaping the future of green ICT.
- **Policy Improvements:** Governments and regulatory bodies need to continue improving policy frameworks to encourage the adoption of green ICT practices. This includes developing clear guidelines, standards, and incentives that promote sustainability. Policymakers should also focus on supporting research and development efforts to drive innovation in green ICT technologies. Collaboration between policymakers, industry stakeholders, and environmental experts is essential for developing effective and forward-thinking policies.
- **International Collaboration:** Addressing environmental challenges requires global collaboration and cooperation. International collaboration can facilitate knowledge sharing, best practices exchange, and joint initiatives for advancing green ICT. Platforms such as international conferences, partnerships, and research networks can help create a unified approach towards environmental sustainability. Sharing success stories and lessons learned from different regions can inspire and motivate stakeholders to take action.

The motivation alone is not sufficient to overcome the challenges in advancing green ICT for environmental sustainability. Addressing the lack of awareness, resistance to change, financial constraints, and policy gaps is crucial. By integrating emerging technologies, improving policies, and fostering international collaboration, we can create a sustainable future where ICT plays a pivotal role in mitigating environmental impacts and promoting a greener world.

Conclusion:

The Motivation serves as a driving force behind the adoption of sustainable practices in the ICT sector, and understanding and addressing motivational factors are key to achieving significant progress in this field. We have explored various motivational factors that influence individuals,

organizations, and policymakers in embracing green ICT practices. These factors include economic incentives, regulatory frameworks, social responsibility, and environmental awareness. By leveraging these motivational factors, stakeholders can be encouraged to make sustainable choices and contribute to a greener ICT ecosystem. The importance of implementing effective strategies to promote motivation and drive the adoption of green ICT practices. Such strategies may involve raising awareness about the environmental impact of ICT, providing training and education on sustainable practices, fostering collaboration between different stakeholders, and establishing clear targets and benchmarks for environmental performance. The critical role of motivation and implementing targeted strategies, we can overcome barriers and challenges associated with the adoption of green ICT practices. This will result in significant environmental benefits, such as reduced energy consumption, minimized e-waste, and decreased carbon emissions. It is crucial for policymakers, industry leaders, and individuals to understand that motivation is not a one-time fix, but an ongoing process. Continuous efforts are needed to sustain motivation and ensure long-term commitment to green ICT practices. Additionally, interdisciplinary collaborations and knowledge sharing among researchers, policymakers, and practitioners are vital for developing innovative solutions and advancing the field of green ICT. The motivation is a powerful catalyst for advancing green ICT for environmental sustainability. By addressing motivational factors and implementing effective strategies, we can accelerate the transition towards a more sustainable ICT sector. Embracing green ICT practices not only benefits the environment but also enhances operational efficiency, reduces costs, and improves the overall well-being of individuals and communities. Let us seize the opportunities at hand and work together towards a greener and more sustainable future.

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Emphasize on Effective Academic Research Quality in a Transdisciplinary Context

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Abstract:

In present, Research is a common activity in academic institutions all over the world. In many cases, academic research is defined in contrast to professional research that has the sole purpose of creating or furthering knowledge, also called applied research but professional research is carried out to find solutions to practical problems. Academic research involves not only just choosing a topic, collecting and analysing. Data, and leveraging academic writing tools but also discovery of new knowledge and Research methodology. Research methodology refers to the systematic procedures or techniques a researcher uses to ensure that his study achieves valid and reliable results. Qualitative research methodology involves collecting and analyzing non-numerical data, such as language to interpret subjects' beliefs, experiences, and behaviors. While good research leads to the discovery of new knowledge, it also means studying previous research on the topic. An effective research quality criterion is necessary to guide the funding, management, ongoing development, and advancement of research methods, projects, and programs. One of the principles of the NEP-2020 is Promoting High Quality Research, as a prerequisite for providing Outstanding Education and growing and sustaining a large and vibrant Indian economy. Academic Research increasingly seeks both to generate knowledge and to contribute to real-world solutions, with strong emphasis on context and social engagement. As boundaries between disciplines are crossed, and as research engages more with stakeholders in complex systems, traditional academic definitions and criteria of research quality are no longer sufficient—there is a need for a parallel evolution of principles. Quality Academic Research essential not only for ensuring Quality Education but also for the development of the Country, as a whole, particularly during the current unprecedented situation and must acknowledge their study's limitations and potential flaws and present these along with the study's findings and conclusion.

Keywords:

Effective, Academic Research, Quality, Transdisciplinary, Context.

Introduction:

Research programs and projects aim to generate new knowledge but also to promote and facilitate the use of that knowledge to enable change, solve problems, and support innovation. Contemporary research in the social and environmental realms places strong emphasis on

achieving 'impact'. Faculty and student research are typically 'applied' in the Organization for Economic Co-operation and Development sense of 'original investigation undertaken in order to acquire new knowledge directed primarily towards a specific practical aim or objective'. To build on these various elements in a synergistic manner, and to thereby truly grow and catalyze quality research in the nation, this policy envisions the establishment of a National Research Foundation. The overarching goal of the National Research Foundation will be to enable a culture of research to permeate through our universities and facilitate research at academic institutions, particularly at universities and colleges where research is currently in a nascent stage, through mentoring of such institutions. Also recognises the need for a Robust Ecosystem for Inter-disciplinary research to address the problems of the Country (Economy, Industry and the Society), particularly during current situation and motivation of faculty by giving more weightage to research in their Career Management System. The process of properly conducting a research study and getting it published takes a significant amount of time and effort. Researchers must be prepared not only for lengthy data collection and analysis methods but also for setbacks, such as subjects dropping out of the study and article revisions. Researchers may also encounter challenges in finding related literature or references that are relevant and up to date. This is why it's important to do a literature review early during the research process.

Objectives:

- To examine the importance of effective academic research quality in a transdisciplinary context.
- To explore the key factors that contribute to effective academic research quality in a transdisciplinary context.
- To identify the challenges and barriers faced in achieving effective academic research quality in a transdisciplinary context.
- To analyze the impact of effective academic research quality on transdisciplinary knowledge generation and dissemination.
- To develop strategies and recommendations for enhancing effective academic research quality in a transdisciplinary context.

The Qualitative Research Methodology:

The quality of research approximate the truth. The overall quality and success of a research study are largely determined by the research methodology it uses. Choosing an appropriate research methodology helps ensure that researchers can collect relevant data and use the right data analysis methods. Academic research also tends to be theoretically focused, and its findings are evaluated through peer review and made public through scholarly journals and academic conferences. The main purpose of this research is to mention the criteria that may assist us to write an effective academic research. Research methodologies are often classified into qualitative research, quantitative research, and mixed-methods research. Hence only qualitative research methodology explained in detail. Qualitative research methodology involves collecting and analyzing non-numerical data, such as language to interpret subjects' beliefs, experiences, and behaviours. Qualitative research techniques include interviews, focus groups, and case studies.

According to UGC guideline for good academic research practices (Published on Sep. 2020)-

- Public trust in Academic Research and its output is essential.
- Quality, impactful, and ethical research, with focus on publishing the outcomes in high-quality journals.
- Culture of responsible and quality research, supported by robust policies, procedures and processes together with a governance structure.
- Research Integrity across the Research cycle – Selection of Research Problem, Research Design, Conducting Research, Documentation and Dissemination.
- All the stakeholders (The Scholar, Guide, University authorities) to have a common stake in research integrity, based on a set of shared values.
- Creation of Office of Research Integrity (ORI) as the entity responsible for the implementation of the guidelines.
- **The Purpose of Research:** The purpose of research or the problem involved should be clearly defined and sharply limited in terms as explicit as possible. The statement of research problem should have analysis into its simplest elements, its scope and limitations and precise prosperities of the meanings of all words significant to the research. If the researcher failed to do this adequately, he will raise the doubts in readers' minds. It is important to write the research procedure in sufficient detail in order to let another researcher repeat the research, unless the secrecy is imposed. An effective academic research leads to the discovery of new knowledge, it may means studying previous research on the topic i.e. it acknowledges previous research on that topic. In a word selected topic must contain a diversity mode.
- **Design of Procedure:** The design of procedure should plane carefully in order to gain objective results. Direct experiments should have satisfactory controls. Direct observations should be recorded in writing as soon as possible after the event. To diminishing siding in selecting and recording data, efforts should be made. The researcher should report with complete explication, demerits in the procedural design and estimate their effect upon the findings. Some demerits effect on data and make them unreliable or lack validity. A competent research should be sensitive to the effects of imperfect design and his experience in analyzing the data should give him a bases for estimating their influence.
- **Data Collect and Analysis :** Good research doesn't stop with the collection of empirical data, the data collected must be analyzed properly as well. The type of data collected largely determines the right data analysis method to use. An analysis of data should be completely enough to reveal its significance and the method of analysis used should be appropriate. The validity and reliability of data should be checked carefully. The data should be classified in a way that the research reaches a good conclusion. When the statistical methods are used the probability of errors should be evaluated and the criteria of statistical significance applied. Researchers are often tempted to expand the bases of exhorting by including personal experiences not subject to the controls under which the research data were gathered. This tends to decrease the objectivity of the research and weaken confidence in findings.
- **Logical Methodology :** The logical processes of induction and deduction can also prove to be valuable in the research process. Also, logic aids researchers by helping them arrive at

valid conclusions. According to the study, inductive reasoning can be used to discover patterns and construct generalizations and theories. Meanwhile, deductive reasoning can help researchers collect empirical data to confirm or refute theories or hypotheses. Aside from these applications of logic, logical reasoning can also make more research more meaningful, especially if the research is to be used in the context of decision-making.

- **Honesty of Researcher:** Honesty of a researcher is most important to improve the quality of an academic research. If the researcher is honest, a greater confidence in the research is warranted. Were it being possible for the readers of a research report to get an enough information about the researcher, this criterion would be a good bases for judging the degree of confidence a piece of research warrants. For this reason, the research should accompanied by more information about the researcher.
- **Generalizability:** Criteria of good research include being representative. In research, representativeness refers to a sample's ability to represent a larger group. This means the characteristics of the subjects (people) being studied closely match those of the study's target population. By using proper methods to create a representative sample, researchers can ensure that their findings can be generalized to the larger population represented. In addition to information on data collection and analysis methods, good research also opens doors for future research on the topic. For instance, researchers can provide details on unexpected study findings or suggest techniques for exploring unaddressed aspects of research problem or research question. Since generalizable knowledge is almost always the aim of scientific research.
- **External Validity:** There are two types of external validity for researchers to consider: population validity and ecological validity (Bhandari, 2021b). Research with findings that can be generalized from the sample to the larger population has a high population validity. Meanwhile, you can achieve ecological validity if you can apply your study's findings to real-world situations and settings. External validity is an important component of good research as well.
- **Funding:** Funding is the most important factor to achieved an effective academic research. Institutions that currently fund research at some level, such as the Department of Science and Technology (DST), Department of Atomic Energy (DAE), Department of Bio-Technology (DBT), Indian Council of Agriculture Research (ICAR), Indian Council of Medical Research (ICMR), Indian Council of Historical Research (ICHR), and University Grants Commission (UGC), as well as various private and philanthropic organizations, will continue to independently fund research according to their priorities and needs. However, National Research Foundation (NRF) will carefully coordinate with other funding agencies and will work with science, engineering, and other academies to ensure synergy of purpose and avoid duplication of efforts. The NRF will be governed, independently of the government, by a rotating Board of Governors consisting of the very best researchers and innovators across fields.

The Transdisciplinary Context:

The current study question is theoretical and methodological, not empirical. Nevertheless, with a diverse and diffuse literature on the quality of transdisciplinary research, a systematic review approach provides a method for a thorough and rigorous review. In collaboration with research and development partners, research outputs that are international public goods which will contribute to the solution of significant development problems that have been identified and prioritized with the collaboration of developing countries.’ Transdisciplinary research crosses disciplinary and institutional boundaries, is context specific, and problem oriented. It combines and blends methodologies from different theoretical paradigms, includes a diversity of both academic and lay actors, and is conducted with a range of research goals, organizational forms, and outputs. The problem-oriented nature of transdisciplinary research and the importance placed on societal relevance and engagement are broadly accepted as defining characteristics of transdisciplinary research. In any activity, we need principles, guidelines, criteria, or benchmarks that can be used to design the activity, assess its potential, and evaluate its progress and accomplishments. The lack of quality criteria to guide and assess research design and performance is seen as hindering the development of transdisciplinary approaches. Traditional disciplinary research is built on well-established methodological and epistemological principles and practices. Within disciplinary research, quality has been defined narrowly, with the primary criteria being scientific excellence and scientific relevance. It can be difficult to find appropriate outlets for transdisciplinary research publications simply because the research does not meet the expectations of traditional discipline-oriented journals. Moreover, a wider range of inputs and of outputs mean that transdisciplinary research may result in fewer academic outputs.

Conclusion:

Transdisciplinary research is primarily considered successful when practical solutions for societal problems have been developed. This result stands regardless of the interviewees and survey respondents’ professional background, hierarchical standing in the project, and experience. Noticeably, all criteria with a high relevance to practice were rated especially important, while typically scientific success criteria were rated less important. Researchers may also encounter challenges in finding related literature or references that are relevant and up to date. This is why it’s important to do a literature review early during the research process.

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Harnessing Technology in Education: Enhancing Institutional Quality and Performance

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Abstract:

The integration of technology in education has revolutionized the way institutions deliver knowledge and enhance their overall quality and performance. This paper explores the profound impact of harnessing technology to improve educational practices. By leveraging innovative tools and platforms, institutions can create engaging and interactive learning experiences that cater to diverse student needs. Technology facilitates personalized learning, allowing students to learn at their own pace and access resources beyond the confines of traditional classrooms. Moreover, it enables real-time collaboration, fostering active participation and knowledge sharing among students and teachers. The effective utilization of technology also enhances institutional efficiency by automating administrative tasks, streamlining processes, and facilitating data-driven decision-making. Furthermore, technology offers opportunities for continuous assessment and feedback, enabling educators to monitor student progress and tailor instruction accordingly. While the integration of technology presents challenges, such as the digital divide and privacy concerns, its potential to revolutionize education and improve institutional quality and performance cannot be understated. Through strategic planning, training, and investment in robust infrastructure, institutions can harness technology to create a transformative learning environment that prepares students for the demands of the 21st century.

Introduction:

In recent years, the integration of technology in education has revolutionized the way we teach and learn. With the rapid advancements in technology, educational institutions have recognized the need to harness its power to enhance institutional quality and performance. This paper aims to explore the importance of technology in education and discuss how it can be effectively utilized to improve the overall quality and performance of educational institutions. Technology has become an integral part of our daily lives, and its impact on education cannot be overstated. It provides numerous benefits that traditional teaching methods alone cannot achieve. Firstly, technology enhances accessibility to education, breaking down geographical barriers and enabling learners from diverse backgrounds to access high-quality educational resources. Online learning platforms, digital textbooks, and educational websites offer flexible learning opportunities, allowing students to learn at their own pace and convenience.

Technology promotes active and engaging learning experiences. Interactive multimedia tools, virtual reality simulations, and gamified educational applications stimulate student engagement,

making the learning process more enjoyable and effective. Additionally, technology facilitates personalized learning by adapting instructional materials to individual student needs and preferences, fostering a more tailored and effective educational experience. Technology equips students with crucial 21st-century skills. In today's digital age, proficiency in digital literacy, critical thinking, problem-solving, and collaboration is essential for success. By incorporating technology into education, students gain hands-on experience with various tools and software, preparing them for the demands of the modern workforce. The various ways technology can be utilized in education, this paper aims to provide educators, administrators, and policymakers with insights and practical recommendations for incorporating technology into their institutions. It also emphasizes the importance of investing in infrastructure, professional development, and support systems to ensure the successful implementation and integration of technology in education.

Technological Advancements in Education:

Technological advancements in education have significantly transformed the way students learn and educators teach. Here are some key advancements that have enhanced the educational landscape:

- **Overview of Technological Advancements in Education:**

Over the years, education has witnessed significant advancements in technology, reshaping the way knowledge is imparted and acquired. These advancements include:

- a. **Digital Devices:** The proliferation of computers, laptops, tablets, and smartphones has provided students and educators with powerful tools for accessing information, collaborating on projects, and engaging in interactive learning experiences.
- b. **Software Applications:** Educational software applications and learning management systems (LMS) have revolutionized the administration and delivery of educational content. These tools facilitate personalized learning, assessment, and data management, streamlining administrative tasks and enabling more efficient teaching practices.
- c. **Online Platforms:** The advent of online platforms, such as Massive Open Online Courses (MOOCs), virtual classrooms, and educational websites, has expanded access to education beyond geographical limitations. These platforms offer flexible learning opportunities, allowing students to learn at their own pace and engage with diverse educational resources.

- **Role of Digital Devices, Software, and Platforms in Education:**

The integration of digital devices, software, and platforms in education plays a crucial role in transforming teaching and learning processes:

- a. **Access to Information:** Technology enables students and educators to access vast amounts of information from various sources, facilitating research, critical thinking, and knowledge acquisition. Digital libraries, online databases, and search engines provide quick and efficient access to a wide range of educational resources.

b. Interactive Learning: Digital devices and software applications promote interactive learning experiences through multimedia content, simulations, and virtual reality. These tools engage students in active participation, improving their understanding, retention, and application of knowledge.

c. Collaboration and Communication: Technology fosters collaboration and communication among students and educators, transcending physical boundaries. Online discussion forums, video conferencing, and collaborative tools enable virtual teamwork, knowledge sharing, and peer-to-peer learning.

d. Personalized Learning: Adaptive learning software and intelligent tutoring systems analyze student data to provide personalized learning experiences. These tools adapt to individual learning styles and pace, identifying areas of improvement and offering tailored feedback and resources.

- **Benefits of Technology Integration in Educational Institutions:**

The integration of technology in educational institutions brings numerous benefits:

a. Enhanced Engagement: Technology-driven teaching methods, such as gamification, interactive multimedia, and virtual simulations, capture students' attention and increase their motivation and engagement in the learning process.

b. Improved Access and Flexibility: Technology eliminates geographical barriers, enabling remote learning and access to educational resources. Students can pursue courses, collaborate with peers, and interact with instructors regardless of their physical location, promoting inclusivity and flexibility.

c. Efficient Administrative Processes: Digital platforms and software applications streamline administrative tasks, such as student registration, attendance tracking, grading, and data analysis. Automation of these processes allows educators to focus more on teaching and personalized instruction.

d. Real-Time Assessment and Feedback: Technology facilitates real-time assessment of student performance through online quizzes, assignments, and interactive assessments. Educators can provide immediate feedback, identify areas of improvement, and adjust instructional strategies accordingly.

e. Data-Driven Decision Making: Technology enables the collection and analysis of large amounts of educational data, including student performance, learning patterns, and institutional metrics. These insights inform evidence-based decision making, enabling institutions to enhance their quality, identify areas of improvement, and implement targeted interventions.

The integration of technology in education offers a multitude of benefits, ranging from improved accessibility and engagement to personalized learning experiences and data-driven decision making. By harnessing technology effectively, educational institutions can enhance institutional quality and performance, creating a more dynamic and effective learning environment.

Enhancing Teaching and Learning Processes:

Enhancing teaching and learning processes through the integration of technology is a key aspect of harnessing technology in education. This integration can have a significant impact on institutional quality and performance. Here are some ways technology can enhance teaching and learning processes:

- **Integration of technology in the classroom:** Technology can be used to enhance traditional teaching methods by providing teachers with interactive tools and resources. This includes using projectors, smart boards, and audio-visual equipment to make lessons more engaging and interactive. It also involves using educational software, online platforms, and learning management systems to facilitate communication, collaboration, and access to resources.
- **Personalized learning experiences through adaptive technology:** Technology can enable personalized learning experiences by adapting to individual students' needs and learning styles. Adaptive technology uses algorithms to assess students' strengths and weaknesses and tailor instruction accordingly. This allows students to learn at their own pace, receive targeted feedback, and access customized resources. Adaptive technology can also provide teachers with data and analytics to monitor student progress and identify areas for intervention.
- **Use of multimedia resources and interactive tools:** Technology provides access to a wealth of multimedia resources, such as videos, simulations, and interactive presentations. These resources can help explain complex concepts, engage students' visual and auditory senses, and make learning more interactive and enjoyable. Interactive tools, such as educational apps and gamified platforms, can also enhance student engagement and motivation.
- **Virtual and augmented reality in education:** Virtual and augmented reality technologies offer immersive learning experiences that can enhance understanding and engagement. Virtual reality (VR) creates a computer-generated environment that simulates real-world experiences, while augmented reality (AR) overlays digital content onto the real world. These technologies can be used to create virtual field trips, simulations, and hands-on experiences that would otherwise be impractical or impossible in traditional classrooms. For example, students can explore historical sites, conduct science experiments, or practice skills in a safe and controlled virtual environment.

The integration of technology in the classroom, personalized learning experiences through adaptive technology, use of multimedia resources, and virtual and augmented reality can greatly enhance teaching and learning processes, leading to improved institutional quality and performance in education.

Streamlining Administrative Tasks:

Streamlining administrative tasks in education through the harnessing of technology is crucial for enhancing institutional quality and performance. Here are four key aspects in which technology can be used to streamline administrative processes:

- **Automation of Administrative Processes:** Technology allows for the automation of various administrative tasks, reducing the manual workload and increasing efficiency. For example, administrative tasks such as data entry, record-keeping, report generation, and scheduling can be automated using specialized software. This automation frees up staff time, allowing them to focus on more value-added activities.

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- Learning Management Systems (LMS) and Student Information Systems (SIS): Learning management systems and student information systems are comprehensive platforms that facilitate the management of various aspects of education. An LMS provides tools for course management, content delivery, assessments, and student engagement. An SIS, on the other hand, handles student-related information like enrollment, grades, attendance, and scheduling. These systems centralize data, simplify administrative tasks, and provide a seamless experience for students, teachers, and administrators.
 - Online Registration and Enrollment Systems: Traditional paper-based registration and enrollment processes can be time-consuming and prone to errors. By implementing online registration and enrollment systems, institutions can streamline these processes. Students and parents can complete forms, submit required documents, and make payments online. This reduces paperwork, minimizes errors, and improves the overall efficiency of registration and enrollment procedures.
 - Efficient Communication and Collaboration Tools: Effective communication and collaboration are essential for administrative staff, teachers, and students. Technology offers various tools that facilitate efficient communication and collaboration, such as email, instant messaging, video conferencing, and project management platforms. These tools enable timely and effective communication among stakeholders, simplify coordination, and enhance collaboration on administrative tasks, projects, and assignments.

The leveraging technology to streamline administrative tasks, educational institutions can achieve improved efficiency, reduced administrative burden, and enhanced institutional quality and performance.

Improving Institutional Effectiveness:

Improving institutional effectiveness in education involves leveraging technology in various areas. Here are four key areas where technology can play a significant role:

- Data-driven decision making and analytics: Technology enables educational institutions to collect, analyze, and interpret vast amounts of data related to student performance, enrollment, and other institutional factors. By using data analytics tools, institutions can make informed decisions about curriculum development, resource allocation, and student support services. For example, analyzing student performance data can help identify areas where additional support or intervention may be needed, leading to targeted interventions and improved outcomes.
- Performance tracking and assessment: Technology can streamline the process of tracking and assessing student performance. Online learning platforms and educational software can provide real-time data on student progress, allowing teachers and administrators to monitor individual and group performance, identify areas of strength and weakness, and adjust instructional strategies accordingly. This data-driven approach to assessment can support personalized learning, early intervention, and continuous improvement in educational outcomes.

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- Institutional research and planning: Technology can enhance institutional research and planning processes by facilitating data collection, analysis, and reporting. Educational institutions can leverage technology tools to gather feedback from stakeholders, conduct surveys, and track trends in student demographics and preferences. This data can inform strategic planning, program development, and resource allocation decisions, ultimately improving institutional quality and performance.
 - Continuous professional development through technology: Technology offers opportunities for educators to engage in continuous professional development (CPD) conveniently and effectively. Online platforms, webinars, and virtual conferences allow educators to access a wide range of resources, collaborate with peers, and participate in professional learning communities. Additionally, technology can facilitate personalized learning plans for educators, enabling them to acquire new skills and knowledge at their own pace and based on their specific needs. Continuous professional development through technology ensures that educators stay updated with the latest pedagogical approaches and instructional technologies, ultimately enhancing their teaching effectiveness.

The technology in these areas, educational institutions can enhance their overall effectiveness, improve student outcomes, and adapt to the evolving needs of learners in the 21st century.

Challenges and Risks in Harnessing Technology in Education:

Harnessing technology in education brings numerous benefits, but it also presents several challenges and risks that institutions need to address. Here are some of the key challenges and risks associated with integrating technology in education:

- Access and equity issues: One of the major challenges in using technology in education is ensuring equal access and opportunities for all students. Not all students may have access to reliable internet connections, computers, or other necessary devices. This can create a digital divide, where some students are disadvantaged compared to their peers. It is crucial to address this issue and provide adequate resources to bridge the gap and ensure equal access to educational technology.
- Privacy and security concerns: When technology is integrated into education, there is a need to handle sensitive student data and maintain privacy. Educational institutions must implement robust data protection measures to safeguard student information from unauthorized access, breaches, or misuse. They should also comply with relevant data protection regulations and establish clear policies on data privacy and security.
- Digital divide and infrastructure limitations: The digital divide refers to the disparity in access to technology and internet connectivity between different regions or socioeconomic groups. In some areas, especially rural or underprivileged communities, the infrastructure may be inadequate to support widespread technology integration in education. Insufficient broadband connectivity, limited access to devices, or outdated technology infrastructure can hinder the effective implementation of educational technology initiatives.

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- Training and support for educators and staff: Integrating technology into education requires a competent and tech-savvy workforce. However, many educators and staff members may lack the necessary digital skills and proficiency to effectively use educational technologies. Proper training programs and ongoing professional development initiatives should be provided to equip educators with the knowledge and skills needed to leverage technology for teaching and learning. Adequate technical support should also be available to address any issues or challenges that may arise during the implementation of technology in education.

Addressing these challenges and mitigating associated risks is essential to ensure that technology integration in education enhances institutional quality and performance effectively. This requires collaborative efforts from educational institutions, policymakers, and stakeholders to provide equal opportunities, prioritize data privacy and security, invest in infrastructure development, and support educators in adopting and utilizing educational technologies effectively.

Recommendations for Successful Implementation:

The implement technology in education and enhance institutional quality and performance, here are some recommendations:

- Strategic planning for technology integration: Develop a comprehensive strategic plan that outlines clear goals and objectives for technology integration in education. This plan should align with the institution's overall mission and vision. Identify specific areas where technology can enhance institutional quality and performance, such as improving student learning outcomes, increasing access to educational resources, and streamlining administrative processes. Regularly review and update the plan to ensure its relevance and effectiveness.
- Professional development and training programs: Provide ongoing professional development and training programs for teachers, administrators, and support staff to enhance their technology skills and pedagogical knowledge. Offer workshops, seminars, and online courses that cover topics such as using educational software, integrating technology into the curriculum, and effective online teaching strategies. Encourage participation in conferences and webinars to stay updated on the latest trends and best practices in educational technology.
- Adequate infrastructure and technical support: Invest in reliable and up-to-date infrastructure, including high-speed internet connectivity, computer labs, multimedia equipment, and relevant software applications. Ensure that the institution has a dedicated IT support team that can provide timely assistance to users, troubleshoot technical issues, and maintain the technology infrastructure. Regularly upgrade hardware and software to keep pace with technological advancements and ensure compatibility with educational applications.
- Engaging stakeholders and fostering collaboration: Involve all relevant stakeholders, including faculty, students, parents, administrators, and community members, in the decision-making process regarding technology integration. Seek their input and feedback

through surveys, focus groups, and committees. Create opportunities for collaboration and sharing of best practices among different stakeholders, such as establishing technology integration committees or hosting regular technology showcases and workshops. Encourage open communication and collaboration to build a shared vision and commitment to technology-enhanced education.

The implementation of technology in education requires careful planning, continuous professional development, robust infrastructure, and active engagement of stakeholders. By following these recommendations, institutions can effectively harness technology to enhance institutional quality and performance.

Conclusion:

The exploration of harnessing technology in education has uncovered several key findings. Firstly, educational technology has the potential to significantly enhance institutional quality and performance. It can provide students with personalized and interactive learning experiences, promote collaboration and communication among learners, and enable access to a vast range of educational resources. Through the integration of technology, educational institutions can overcome traditional limitations and reach learners in remote areas or those with physical disabilities. Furthermore, technology can support the assessment and evaluation process, providing educators with real-time data on student performance and enabling targeted interventions. Looking towards the future, there are several potential developments in educational technology that hold great promise. Artificial intelligence and machine learning algorithms can be further utilized to customize learning experiences and provide adaptive feedback to students. Virtual and augmented reality technologies can create immersive and engaging learning environments, allowing learners to explore complex concepts and scenarios. The increasing use of mobile devices and the internet offers opportunities for anytime, anywhere learning, fostering lifelong learning habits. As technology continues to advance, it is crucial for educational institutions to stay abreast of these developments and adapt their approaches to leverage the full potential of technology in education. The importance of continued research and evaluation cannot be overstated. As new technologies emerge and existing ones evolve, ongoing research is essential to understand their effectiveness, identify best practices, and address potential challenges and concerns. Rigorous evaluation methods should be employed to measure the impact of technology on student outcomes, institutional effectiveness, and overall educational quality. The harnessing technology in education has the potential to revolutionize teaching and learning processes, enhance institutional quality, and improve performance. By embracing and effectively utilizing educational technology, institutions can create dynamic and engaging learning environments that prepare students for the challenges of the modern world. Continued research, evaluation, and innovation are critical to ensure that technology remains a driving force in advancing educational excellence.

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Assessment of Learning Outcome of Differently Abled Learners: Formative Tools and Techniques Used for Specific Deficiencies

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Abstract

Formative assessment is an integral part of an effective teaching-learning process especially suitable for differently-abled learners. It is viewed as a valid and vital part of the blending of teaching, learning, and assessment for all learners including the differently abled. It may also be based on purposeful learning outcomes, planned as spontaneous tools and techniques used for formative assessment on phased learning, viz., teacher-to-student, student-to-teacher, and student-to-student through verbal, non-verbal, and written interactions. The present paper aims to identify the concept of formative assessment, its characteristics, and the tools and techniques of its assessment. The application of formative assessment tools and techniques has been discussed with respect to differently-abled learners considering their deficiencies.

Key Words: Formative Assessment; Teaching-learning process; differently-abled learners, learning outcome, tools & techniques of Assessment, Differently Abled Learners

Introduction

Many people assume that 'assessment' means taking a test, but assessment is broader than that. There are two main types of assessment: summative assessment and formative assessment. These are sometimes referred to as assessment of learning and assessment for learning, respectively. At some level, both happen in almost all classrooms. The key to good assessment practice is to understand what each type contributes and to build your practice to maximise the effectiveness of each.

Formative assessment refers to a wide variety of methods that teachers use to conduct in-process evaluations of student comprehension, learning, and academic progress during a lesson, unit, or course. Formative assessments help teachers to identify concepts that students are struggling to understand, skills they have difficulty acquiring, or [learning standards](#) they have not yet achieved so that adjustments can be made to lessons, instructional techniques, or providing support.

Many educators and experts believe that formative assessment is an integral part of the effective teaching-learning process, especially for exceptional children. In contrast, with most summative assessments deliberately used in general to set apart from main instruction, formative assessments are taken as an integral part of the total teaching-learning process. A formative-

assessment technique could be very simple as if, a teacher asking students in a classroom setting to raise their hands if they feel understood a newly introduced concept, or it could be as sophisticated as having students complete a self-assessment of their own written responses (typically using a [rubric](#) outlining each of the criteria) that the teacher then reviews and comments as a part of the evaluation. While formative assessments help teachers identify learning needs, difficulties, and problems, in many cases the assessments also help students develop a stronger understanding of their own academic strengths and weaknesses as a learning process. When students know what they do well and what they need to work harder on, it can help them take greater responsibility for their own learning and academic progress toward a specific learning objective, which may ultimately improve the learning output of the students.

Formative Assessment

The general goal of formative assessment is to collect detailed information that can be used to improve the instructional process, and the goal of student learning while it is happening. That makes an assessment 'formative' is not the design of a test, technique, or self-evaluation, per se, but a way of using it, i.e., to provide information about the teaching in-process and the trend of the goal-directed learning modalities.

Formative assessment is defined by McManus (2008, p. 3)¹ as a process in which teachers and students are provided feedback during the process of teaching, to organize better learning, and appropriate teaching processes to increase student learning output. According to Miller and Lavin (2007)², formative assessment can be viewed as a valid and vital part of the blending of teaching and assessment. Formative assessments focus on the thinking processes and inform teachers about the level of learning of the students, and they have an indicator of decision for how the teachers should plan their next lessons (Wuest & Fisette, 2012)³. There are four main components of formative assessment (Black, Harrison, Lee, Marshall, & Wiliam, 2003⁴: (i) Explaining learning objectives and success criteria; (ii) increasing the quality of inquiry/dialogue; (iii) increasing the quality of marking/ feedback/record keeping; and (iv) using self and peer assessment.

According to Heritage (2008)⁵, goals and related criteria enable students to know what and why they will learn so that they can become active participants in what otherwise can be a passive learning process. When a new topic is introduced, it is crucial for students to share their goals, needs, and criteria to get good results and notes to remember (Gioka, 2007⁶; Lombard & Schneider, 2013⁷). From the beginning of the lesson, students are given the responsibility for their own learning, giving each one a chance to construct their own knowledge on the subject, work together with their peers and their teachers, expand their knowledge framework, and move toward more complex knowledge and understanding (Ritchhart, Church, & Morrison, 2011⁸). One of the benefits of sharing learning goals with learners is that they are given tasks in alignment with the learning goals.

One of the primary elements of formative assessment is asking questions (Hodgson & Pyle, 2010⁹). Teachers may spend almost one-third of their teaching time asking questions. According to Borich (2014¹⁰), 50 percent or more questions are typically asked in elementary and secondary school classrooms during the teaching-learning process. Sometimes 80 percent of the overall school hour can be spent on questions and answers. Such intense focus on a single strategy shows both its suitability and perceived effectiveness. However, not all questions are compelling, or in other words, not all questions are actively involved in the learning process. Besides, most teachers do not use classroom dialogues to help students to learn. Asking questions for formative assessment is crucial in obtaining information about students' learning and understanding. This objective can be achieved if the questions are active and effective at determining the learner's depth of knowledge (McMillan, 2014¹¹).

At the center of formative assessment, there is the concept of feedback (Hattie & Timperley, 2007¹²). The impact of formative assessment arises from the strength of the feedback provided to students about their learning and to teachers about their teaching (Andrade, Lui, Palma, & Heffernan, 2015¹³). According to Shute (2008¹⁴), formative feedback is information transmitted to students that allow or encourages them to organize their thoughts or behaviours to improve their learning. Lockett and Sutherland (2000¹⁵) emphasize that feedback provided through formative assessment has significant benefits when motivating students, helping students improve their learning, reinforcing their work, and providing them with a learning profile. Similarly, Snowball and Sayigh (2007¹⁶) also point out that the value of teaching the teacher to provide individual students with feedback on their learning and performance improvement is undisputed.

The goal of formative assessment is to monitor student learning to provide ongoing feedback that can be used by instructors to improve their teaching and by students to improve their learning. More specifically, formative assessments:

- help students identify their strengths and weaknesses and target areas that need work
- help faculty recognize where students are struggling and address problems immediately

Formative assessments are generally low stakes, which means that they have low or no point value. Examples of formative assessments include asking students to:

- draw a concept map in class to represent their understanding of a topic
- submit one or two sentences identifying the main point of a lecture
- turn in a research proposal for early feedback

General Tools and Techniques of Formative Assessment

Formative assessment is based on "purposeful, planned and often spontaneous teacher-to-student, student-to-teacher and student-to-student verbal and written interactions" (Keeley, 2008¹⁷). These interactions include a variety of assessment techniques known as "Classroom Assessment Techniques" (CATs) (Angelo & Cross, 1993¹⁸) or "Formative Assessment Classroom Techniques" (FACTs). Applying CAT/ FACTs is not time-consuming, yet it can provide the

teacher with a good overview and feedback on the lessons, and at the same time, students get feedback on their own learning. For example, FACTs can take the form of ‘true or false’ statements (Hubbard et al., 2017¹⁹), K-W-L charts and self-assessment cards, card mapping the learning process, metacognition, exit card, concept map, checklist (British Columbia Institute of Technology, 2010²⁰; Ma et. al., 2012²¹), task cards (Hattie, 2009²²), and others. These FACTs help students engage in deeper thinking about their ideas in science and identify the progress in the development of their scientific understanding. When assessing students’ performance in science education, students’ understanding of core concepts cannot be assessed separately from their abilities to use the practices of science. These two dimensions of learning should be assessed together to verify whether students can apply theoretical scientific concepts into practice, in other words, whether their level of understanding allows them to investigate the world through the practices of scientific inquiry. The term ‘practices’ indicate that engaging in scientific inquiry requires not only knowledge but also practical skills (National Research Council, 2012,²³). These skills are often referred to as inquiry skills. The FACTs can be used to train these practices.

Alternative Tools and Techniques of Formative Assessment

When it comes to figuring out what our students really know, we must look at more than one kind of information. A single data point—no matter how well-designed the quiz, presentation, or problem behind it - is not enough information to help us plan the next step in our instruction.

Different learning tasks are learned in different ways, and thus we can see why we need a variety of formative assessment tools we can deploy quickly, seamlessly, and in a low-stake way—all while not creating an unmanageable workload. That’s why it’s important to keep it simple. Formative assessments generally just need to be checked, not graded, as the point is to get a basic on the progress of individuals or the class. There are seven approaches for alternative formative assessment:

(i) *Entry and exit slips*: Those marginal minutes at the beginning and end of class can provide some great opportunities to find out what kids remember. Start the class off with a quick question about the previous day’s work while students are getting settled.

Exit slips can take lots of forms beyond the old-school, pencil and scrap paper. Whether the teachers are assessing at the bottom of Bloom’s taxonomy or the top, a teacher can use tools like ‘Padlet or Poll’ everywhere, or measure progress toward attainment or retention of essential content or standards with tools like Google Classroom’s Question tool, Google Forms, all of which make seeing what students know a snap.

(ii) *Low-stakes quizzes and polls*: If teachers want to find out whether students really know as much as the teacher thinks they know, polls and quizzes created with Socrative or Quizlet or in-class games and tools like Quizlike, Kahoot, Flip Quiz, Gambit, Pickers, and Flappity can help us

in getting a better sense of how much they really understand. Kids in many classes are always logged into these tools, so formative assessments can be done very quickly. Teachers can observe each kid's response style, and determine both individually and in aggregate how students are doing.

(iii) Dipsticks: So-called alternative formative assessments are sometimes referred to as dipsticks. These can be things like asking students to:

- Write a letter explaining a key idea to a friend,
- Draw a sketch to visually represented new knowledge, or
- Do think, pair, and share exercises with a partner.

Teachers' own observations of students at work in class can provide valuable data as well, but they can be tricky to keep track of. Taking quick notes on a tablet or smartphone, or using a copy of your roster, is one of the approaches. A focused observation form is more formal and can help you narrow your note-taking focus as you watch students work.

(iv) Discussion-based assessments: If a teacher wants to dig a little deeper into students' understanding of content, may try the discussion-based assessment method. Casual chats with students in the classroom can help them feel at ease even as the teacher gets a sense of what they know, and the teacher may find that five-minute interview assessment work well. Five minutes per student would take quite a bit of time. Teachers can also shift some of this work to students using a peer-feedback process called TAG (tell your peer something they did well, ask a thoughtful question, and give a positive suggestion) feedback. For more introverted students—or for more private assessments—the teacher can use Flipgrid, Explain Everything, or Seesaw to have students record their answers to prompt and demonstrate what they can do.

(v) Methods that incorporate art: Consider using visual art or photography or videography as an assessment tool. Whether students draw, create a collage, or sculpt, teachers may find that the assessment helps them synthesize their learning, or think beyond the mere visual objects and have kids act out their understanding of the content. They can create a dance to model cell mitosis or act out stories like Ernest Hemingway's "Hills Like White Elephants" to explore the subtext.

(vi) Misconceptions and errors: Sometimes it is helpful to see if students can understand why something is incorrect, confusing, or why a concept is hard. Teachers can ask students to explain the 'muddiest point' in the lesson—the place where things get confusing or particularly difficult or where they still lack clarity. Or do a misconception check - students present with a common misunderstanding and ask them to apply previous knowledge to correct the mistakes or ask them to decide if a statement contains any mistakes at all, and then discuss their answers.

(vii) *Self-assessment*: Don't forget to consult the experts about the kids. Often teachers can give his or her rubric to their students and have them spot their strengths and weaknesses. Teachers can use sticky notes to get a quick insight into what areas kids think they need to work on. Ask them to pick their own trouble spot from three or four areas where teachers think the class needs work and write those areas in separate columns on a board. Have students answer on a sticky note and then put the note in the correct column—the teacher can see the results briefly.

Formative Assessment for Differently Abled Learners

The UDL is an approach to teaching and learning that gives all students an equal opportunity to succeed. It is about finding one way to teach all students, especially useful for the goal of Universal Design for Learning (UDL) is to practice simultaneous access to formative evaluation and stepwise need-based learning and assessment in an inclusive setup. It is effective for all students by removing their barriers. The concept is that well-designed instruction and assessments benefit all learners universally — not just those with disabilities. Universal design is a concept that originated in architecture with the idea that good design benefits all, and reduces the need for accommodations. For example, cuts in the curbs on sidewalks provide access to individuals in wheelchairs, but the cuts also benefit parents pushing strollers and people with sore knees who find the curbs cumbersome. Similarly, closed captioning has been developed for individuals who are hard of hearing, yet many people use it. (2012, Thompson, Thurlow, & Malouf, 2004²⁴).

The National Centre on Universal Design for Learning (CAST, 2012) identified three principles of universal design for learning (UDL):

Principle I: Provide multiple means of representation (the “what” of learning);

Principle II: Provide multiple means of action and expression (the “how” of learning);

Principle III: Provide multiple means of engagement (the “why” of learning).

Similarly, formative assessment practices and procedures that are more universally designed can play an important role for special needs children. Formative assessment designed right from the beginning to allow the participation of individuals with a wide range of characteristics minimizes the Formative Assessment for Students with Disabilities who need accommodations. It can also help ensure that all students can participate and that the assessment measures what is intended and provides instructional useful information. Thompson et al. (2004²⁵) identified several characteristics of well-designed assessments that are inclusive of all students:

- Precisely designed constructs,
- Accessible, non-biased items,
- Amenable to accommodations,
- Simple, clear, and intuitive instructions and procedures,
- Maximum readability and comprehensibility, and
- Maximum legibility.

Formative Assessment and Students with Disability

Before we present practical examples, we will take a moment to cite research that suggests formative assessment is a very appropriate approach to use with low achievers in general and students with disabilities in particular. Black and Wiliam (1998²⁶) made a meta-analysis with 250 studies and reviews of studies of formative assessment. They reported that some, but not all, of the studies showed formative assessment helped lower achievers more than others, in effect narrowing the achievement gap while raising achievement overall. Their review described several studies as examples, including a study of disadvantaged kindergarten students (Bergan, Sladeczek, Schwarz, & Smith, 1991²⁷), and a meta-analysis of 21 studies that primarily addressed the use of formative curriculum-based evaluation for children with disabilities (Fuchs & Fuchs, 1986²⁸). The success of formative assessment in these studies serves as “proof of concept” that formative assessment can work with low achievers and students with disabilities. Brookhart, Moss, and Long (2010²⁹) worked with ‘I am reading teachers on professional development in formative assessment’. The students of these six teachers were in an Extended Day Kindergarten program or were receiving remedial reading assistance while mainstreamed into regular elementary classrooms. The teachers found they became more mindful of their own instruction, involved students more, gave more specific feedback, kept more useful records of observations of students, began to focus on student motivation as well as achievement, and came to see formative assessment as part of good instruction. The teachers were very positive about their changes in practice and excited about the changes they saw in their students. Student achievement rose in first grade, compared with similar students of teachers who were not using formative assessment. Teachers also said they observed an increase in general reading achievement, motivation, time on task, and student engagement. We have already mentioned the LHTL project and its finding that lower achievers benefitted from clear learning goals and success criteria, suggesting not knowing what they were supposed to learn was a key issue for them. The LHTL project found that three factors underlie effective formative assessment practice: making learning explicit, which we already mentioned, promoting learning autonomy, and a performance orientation (James, Black, et al., 2006³⁰; James & Learning Research Program, 2006).

Conclusion

Promoting learning autonomy may especially be an important support for students with disabilities in learning and assessment with disabilities who have poor executive functioning. Butler and Schneller (2015³¹) suggest that teachers create a classroom environment that supports learning autonomy when they set tasks that give students opportunities for planning, thinking, learning over time, and managing their learning. These opportunities promote students’ metacognition, motivation, and strategic action. Some students with disabilities should need some routines and structures to support such work, clear learning goals, feedback, and involvement in the assessment process. These are exactly the qualities featured in formative assessment. Shute’s (2008) review of the literature on feedback similarly finds that low-

achieving students benefit from immediate feedback and feedback that provides scaffolding and support, focused on the learning goal. These supports and the self-regulation they engender will help all students, including students with disabilities, move away from some of the unsuccessful routines they may have developed, for example, conceiving of tasks as following directions instead of making meaning, and seeing schoolwork as a series of isolated assignments that require mostly recall and drill.

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The Intersection of Performing Arts and Psychology: Exploring the Therapeutic Potential and Cognitive Impact

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Abstract:

The intersection of performing arts and psychology represents a fascinating and promising area of exploration. This abstract aims to elucidate the therapeutic potential and cognitive impact of this unique integration. Performing arts, including music, dance, theater, and visual arts, have been used as powerful tools to express emotions, communicate ideas, and connect with others on a profound level. In the realm of psychology, these artistic forms hold the potential to facilitate healing, self-discovery, and personal growth. Delves into the empirical evidence and theoretical frameworks that underpin the therapeutic applications of performing arts. It examines how engagement with artistic activities can enhance emotional well-being, reduce stress, and foster resilience. Moreover, the cognitive impact of performing arts, such as their influence on memory, attention, and creative thinking, will also be investigated. The synthesis of performing arts and psychology opens up new avenues for therapeutic interventions and offers an innovative approach to address mental health challenges. Through a comprehensive review of existing literature, this study sheds light on the promising ways in which performing arts can positively affect psychological well-being and cognition.

Keywords: Performing Arts, Psychology, Therapeutic Potential, Cognitive Impact, Intersection.

1. Introduction:

The intersection of performing arts and psychology is a captivating and dynamic area of study that delves into the therapeutic potential and cognitive impact of engaging with artistic expression. For centuries, humans have been drawn to various forms of performing arts, including music, dance, theater, and other creative outlets, finding solace, joy, and self-expression through these mediums. However, beyond mere entertainment, recent research has shed light on the profound effects that engaging with the performing arts can have on individuals' mental and emotional well-being. Psychology, as the scientific study of the mind and behavior, provides a comprehensive framework to understand the cognitive and emotional processes that underpin our responses to artistic stimuli. The interaction between performing arts and psychology offers a unique lens through which to explore the intricate connections between the human mind, emotions, and creativity. This research aims to delve into the therapeutic potential of performing arts as a means of promoting psychological well-being and facilitating emotional healing. In therapeutic settings, creative arts therapies, such as music therapy, dance/movement therapy, and drama therapy, have shown promising results in treating a wide range of psychological conditions, including anxiety, depression, post-traumatic stress disorder (PTSD), and various neurodevelopmental disorders. These modalities tap into the power of artistic expression to unlock emotions, foster self-awareness, and encourage personal growth. Understanding the cognitive impact of engaging with performing arts can shed light on how

artistic experiences influence memory, attention, problem-solving, and emotional regulation. The immersive nature of performing arts experiences, such as attending live performances or actively participating in creative activities, can stimulate neural networks and enhance cognitive flexibility, leading to potential cognitive benefits. This exploration will also consider the role of cultural factors in shaping individuals' responses to performing arts and the varying therapeutic outcomes across diverse populations. As performing arts encompass a rich tapestry of cultural traditions, examining the intersection of psychology and performing arts will help discern the universality and cultural specificity of the therapeutic potential and cognitive impact. I We will delve deeper into the research on the psychological benefits of different forms of performing arts, examining their role in enhancing emotional well-being, promoting resilience, and fostering a sense of community and belonging. Additionally, we will explore how the application of performing arts in therapeutic contexts aligns with established psychological theories and therapeutic techniques, further substantiating their significance in mental health care. This investigation into the intersection of performing arts and psychology aims to contribute to a comprehensive understanding of the profound impact of creative expression on human psychology. By shedding light on the therapeutic potential and cognitive effects of engaging with performing arts, we hope to inspire further research and the integration of creative arts therapies into mainstream mental health practices, fostering holistic approaches to well-being and healing.

2. Objectives:

- To investigate the therapeutic potential of performing arts (e.g., drama, music, dance, and visual arts) in psychological interventions for various mental health conditions (e.g., anxiety disorders, depression, PTSD).
- To examine the cognitive impact of participating in performing arts activities on cognitive processes such as attention, memory, creativity, and problem-solving skills.
- To explore the underlying mechanisms through which performing arts interventions may promote emotional expression, stress reduction, and overall psychological well-being.
- To assess the effectiveness of different forms of performing arts therapy in comparison to traditional therapeutic approaches (e.g., cognitive-behavioral therapy, talk therapy) in enhancing psychological outcomes.
- To investigate the potential of using performing arts-based interventions as a complementary approach to existing mental health treatments or in combination with other therapeutic modalities.
- To identify specific populations (e.g., children, adolescents, adults, elderly) that may benefit most from performing arts therapy and to tailor interventions accordingly.

3. The Therapeutic Potential of Performing Arts:

The intersection of performing arts and psychology has shown great promise in harnessing the therapeutic potential of artistic expression for emotional healing, personal growth, and cognitive impact. Various forms of performing arts, such as drama, music, dance, and expressive arts therapies, have been used for centuries in healing practices and have gained recognition as effective therapeutic modalities in contemporary clinical settings.

3.1 Historical Use of Performing Arts in Healing Practices:

The use of performing arts for healing can be traced back to ancient civilizations, where music, dance, storytelling, and rituals were employed to address emotional and psychological distress. For example, in ancient Greece, theater was used to explore human emotions, dilemmas, and conflicts, providing a cathartic experience for both performers and audience members. In traditional cultures worldwide, dance and music were used in rituals and ceremonies to promote healing and spiritual well-being.

3.2 Current Applications in Clinical Settings:

In modern times, performing arts-based therapies have been integrated into clinical settings to complement traditional psychotherapy and medical interventions. Here are some current applications:

- a. **Drama Therapy:** This form of therapy utilizes role-playing, improvisation, and storytelling to explore emotional issues, enhance interpersonal skills, and promote self-awareness and empathy.
- b. **Music Therapy:** Music is used to address emotional, cognitive, and social needs. Therapists use instruments, singing, songwriting, and listening to music to facilitate emotional expression and support clients in achieving therapeutic goals.
- c. **Dance/Movement Therapy:** This approach uses movement and dance to foster self-expression, body awareness, and emotional processing. It can be particularly helpful for individuals dealing with trauma, body image issues, and emotional regulation.
- d. **Expressive Arts Therapy:** This interdisciplinary approach combines various forms of arts (e.g., visual arts, music, drama, dance) to facilitate emotional exploration and healing.

3.3 Mechanisms Underlying Therapeutic Effects:

The therapeutic effects of performing arts can be attributed to several underlying mechanisms:

- a. **Emotional Expression:** Performing arts offer a safe and creative outlet for individuals to express complex emotions that may be difficult to verbalize directly.
- b. **Catharsis:** Engaging in artistic expression can lead to cathartic experiences, allowing individuals to release pent-up emotions and achieve emotional relief.
- c. **Neurobiological Impact:** Participating in the performing arts can stimulate the release of neurochemicals such as endorphins and oxytocin, which are associated with positive emotions and social bonding.
- d. **Empowerment and Self-Efficacy:** Successfully expressing oneself through performing arts can enhance self-confidence and a sense of accomplishment, fostering a positive self-image.
- e. **Social Connection:** Group-based performing arts therapies can promote social interaction and a sense of belonging, reducing feelings of isolation.
- f. **Symbolic Representation:** Artistic expression allows individuals to symbolically represent their experiences, facilitating a deeper understanding and integration of emotions.

The therapeutic potential of performing arts lies in its ability to engage individuals on emotional, cognitive, and social levels, offering a holistic approach to healing and personal growth. As research in this field continues, the integration of performing arts and psychology is likely to become an increasingly valuable and recognized aspect of mental health and well-being.

4. Psychological Benefits of Engaging in Performing Arts:

4.1 Enhancing Emotional Expression and Regulation:

Engaging in performing arts, such as acting, dancing, or playing music, provides individuals with a platform to explore and express a wide range of emotions. Through artistic expression, individuals can better understand their emotions and learn to regulate them effectively. This process can be particularly beneficial for those who have difficulty expressing their feelings verbally. By portraying different characters or emotions in their performances, individuals can gain insight into their own emotional experiences and develop healthier coping mechanisms for dealing with various emotions.

4.2 Reducing Stress and Anxiety:

Participating in performing arts can have a significant impact on reducing stress and anxiety levels. When individuals immerse themselves in creative activities, their focus shifts away from daily worries and stressors, allowing them to experience a state of flow and mindfulness. The process of creating and performing also triggers the release of endorphins, which are natural mood enhancers. Additionally, engaging in performing arts in a supportive and encouraging environment can lead to a sense of relaxation and a reduction in anxiety symptoms.

4.3 Building Self-Confidence and Self-Esteem:

Performing arts can be a powerful tool for building self-confidence and self-esteem. As individuals develop their skills and receive positive feedback from peers and instructors, they begin to believe in their abilities and feel a sense of accomplishment. The process of performing in front of an audience, whether large or small, can also help individuals overcome stage fright and develop a more confident self-image. This newfound self-assurance often extends beyond the stage and into other areas of life, leading to increased assertiveness and a positive self-concept.

4.4 Fostering Empathy and Social Connection:

Participating in performing arts often involves collaborating with others, be it in a theater production, dance troupe, or musical ensemble. This collaboration fosters a sense of empathy as individuals learn to understand and appreciate the perspectives, emotions, and experiences of their fellow performers. Through the portrayal of different characters and situations, performers can develop a deeper understanding of human behavior and emotions, leading to increased empathy in their personal lives as well. Moreover, the process of working together towards a common artistic goal creates strong social bonds and a sense of belonging, reducing feelings of isolation and promoting overall well-being.

The intersection of performing arts and psychology offers numerous psychological benefits. From enhancing emotional expression and regulation to reducing stress and anxiety, building self-confidence and self-esteem, and fostering empathy and social connection, engaging in performing arts can be a transformative and enriching experience. As a therapeutic tool, the performing arts have the potential to positively impact individuals' cognitive and emotional well-being, making them a valuable addition to traditional therapeutic approaches.

5. Cognitive Impact of Performing Arts:

The intersection of performing arts and psychology has been an area of interest for researchers and practitioners alike. The cognitive impact of engaging in performing arts activities has been a

subject of study, exploring how these activities can influence various cognitive functions. Here are some aspects of cognitive impact related to performing arts:

5.1 Memory Enhancement:

Participating in performing arts, such as acting, dancing, or playing a musical instrument, has been associated with memory enhancement. Learning lines, choreography, or musical pieces requires the performer to memorize and recall information effectively. Rehearsing and performing regularly can lead to improved memory capacity and the development of memory strategies. Additionally, the emotional engagement and personal connection with the material may further enhance memory retention.

5.2 Attention and Concentration:

Performing arts demand a high level of focus and concentration. Whether it's acting on stage, performing in a dance routine, or playing a musical instrument, performers need to be fully present in the moment. Continuous practice and training can improve attentional control and the ability to sustain focus, which can have positive effects not only on performing arts but also in other aspects of life.

5.3 Cognitive Flexibility and Creativity:

Engaging in performing arts often requires individuals to think creatively and adapt to various situations. Improvisation in acting, finding unique ways to express emotions through dance, or composing music all involve cognitive flexibility. Regular exposure to such experiences can stimulate the brain's ability to generate new ideas and think outside the box. This enhanced cognitive flexibility can also translate to problem-solving skills and adaptability in daily life. Performing arts offer a creative outlet for individuals to express their thoughts, emotions, and experiences. This emotional expression and release can positively impact psychological well-being and reduce stress and anxiety. By engaging with their emotions through the arts, individuals can gain insights into their own feelings and experiences, leading to personal growth and increased self-awareness.

5.4 Emotional Regulation:

Performing arts can provide a platform for individuals to explore and express a wide range of emotions, both positive and negative. This emotional exploration can help individuals develop emotional regulation skills, as they learn to manage and cope with intense feelings through their performances. For some, this emotional catharsis can be therapeutic and contribute to improved mental health.

The cognitive impact of engaging in performing arts is multifaceted, with benefits that extend beyond just artistic skills. It can enhance memory, attention, cognitive flexibility, and creativity, while also providing a means for emotional expression and regulation. These cognitive benefits, coupled with the therapeutic potential of performing arts, highlight the significance of incorporating creative activities into psychological interventions and educational programs. However, it's important to note that individual responses to performing arts can vary, and not everyone may experience the same cognitive effects.

6. The Role of Performing Arts in Education:

Performing arts, which include various forms of creative expression such as music, dance, theater, and visual arts, play a crucial role in education. Integrating the arts into the curriculum can have a profound impact on students' cognitive, emotional, and social development. Here are some key aspects to consider:

6.1 Incorporating Arts into the Curriculum:

Integrating performing arts into the educational curriculum can enhance students' overall learning experience and provide a more holistic approach to education. Schools can achieve this by:

- a. **Arts Integration:** Combining performing arts with core subjects like math, science, history, and language arts to reinforce learning and foster creativity.
- b. **Dedicated Arts Classes:** Offering specialized courses in music, theater, dance, and visual arts to allow students to explore their artistic talents and interests.
- c. **After-School Programs:** Providing extracurricular activities in performing arts to cater to students who have a passion for creative expression.

6.2 Effects on Academic Performance:

Research has shown a positive correlation between involvement in performing arts and academic performance. Engaging in artistic activities can have the following effects on students' academic abilities:

- a. **Cognitive Development:** Performing arts involve complex cognitive processes, such as problem-solving, critical thinking, and creative expression, which can enhance overall cognitive abilities.
- b. **Memory and Retention:** Learning lines, choreography, or musical scores can improve memory and retention skills, which can transfer to other academic subjects.
- c. **Communication Skills:** Performing arts require effective communication, both verbal and non-verbal, which can improve students' communication abilities across different subjects.
- d. **Focus and Discipline:** Practicing and mastering a performing art form requires discipline and focus, which can also positively impact students' ability to concentrate on academic tasks.

5.3 Social and Emotional Learning through Arts Education:

One of the significant benefits of incorporating performing arts into education is the promotion of social and emotional learning (SEL). This aspect focuses on developing students' emotional intelligence, empathy, and social skills, fostering a positive school environment. Here's how performing arts can contribute to SEL:

- a. **Self-Expression:** The arts provide a platform for students to express themselves, their thoughts, and emotions, facilitating self-awareness and emotional regulation.
- b. **Collaboration:** Working in a performing arts group or ensemble teaches students teamwork, cooperation, and the importance of supporting each other's efforts.
- c. **Empathy and Perspective-Taking:** Engaging with characters and storylines in theater or dance can help students develop empathy and see situations from different viewpoints.
- d. **Confidence and Resilience:** Performing in front of an audience can boost self-confidence and resilience, as students learn to cope with challenges and overcome stage fright.

e. Cultural Awareness: Exposure to diverse art forms and cultural expressions can enhance students' understanding and appreciation of different cultures.

The integrating performing arts into education offers numerous benefits for students, including improved academic performance, enhanced cognitive abilities, and significant contributions to social and emotional learning. By recognizing the therapeutic potential and cognitive impact of performing arts, educators can create a more well-rounded and enriching educational experience for their students.

7. Challenges and Ethical Considerations:

7.1 Accessibility and Inclusivity:

One of the main challenges in using performing arts as a therapeutic tool is ensuring that it remains accessible and inclusive to all individuals. People from diverse backgrounds, cultures, and abilities should have the opportunity to benefit from these interventions. Some potential barriers to accessibility include financial constraints, geographic location, language barriers, or physical disabilities. Mental health practitioners and artists need to be mindful of these challenges and work to create programs and interventions that cater to a wide range of individuals.

7.2 Balancing Artistic Freedom and Therapeutic Goals:

Performing arts are inherently artistic and creative, and artists often express themselves through their work. In a therapeutic context, it is essential to strike a balance between artistic freedom and the specific therapeutic goals. Therapeutic interventions need structure and direction to address the psychological needs of participants, but at the same time, it is crucial to allow room for creative expression. Striking this balance ensures that the artistic process remains meaningful and impactful while still addressing the therapeutic objectives.

7.3 Ethical Concerns in Using Performing Arts for Psychological Purposes:

Ethical considerations are paramount when using performing arts for psychological purposes. Some key ethical concerns include:

Informed Consent: Participants should be fully informed about the purpose, risks, and benefits of the therapeutic intervention involving performing arts. They should have the capacity to provide consent, and their participation should be voluntary.

Confidentiality: Confidentiality is crucial in therapeutic settings, including those involving performing arts. Participants' personal information and the content of their creative expressions should be handled with care and kept confidential, following standard ethical guidelines.

Potential Triggers: Engaging in performing arts, especially in expressive and emotionally charged activities, may trigger unresolved trauma or emotional distress in some participants. Mental health professionals and artists should be prepared to address such situations and provide appropriate support and referrals when needed.

Competence and Training: Those facilitating therapeutic interventions using performing arts should have the necessary training, qualifications, and expertise in both the artistic and psychological aspects. This ensures a safe and effective environment for participants.

Boundary Management: Establishing and maintaining appropriate boundaries between the therapeutic relationship and other social or personal connections is crucial to ensure ethical conduct.

Cultural Sensitivity: Cultural competence is essential when using performing arts in a therapeutic context. Practitioners and artists should be aware of cultural differences and ensure that interventions are respectful and sensitive to diverse cultural backgrounds.

Assessment and Evaluation: Regular assessment and evaluation of the therapeutic interventions are necessary to gauge their effectiveness and make any required adjustments. This helps ensure that the interventions remain beneficial and ethically sound.

The intersection of performing arts and psychology offers exciting potential for therapeutic applications and cognitive impact. However, it is essential to address the challenges and ethical considerations associated with this approach to provide meaningful and responsible interventions for individuals seeking psychological support and growth.

8. Future Directions and Recommendations:

The intersection of performing arts and psychology presents a promising avenue for enhancing therapeutic potential and understanding the cognitive impact of artistic expressions on mental well-being. To further develop this field and harness its benefits, several future directions and recommendations can be considered:

8.1 Promoting Research in Performing Arts and Psychology:

Funding and Grants: Governments, private foundations, and organizations should allocate funding and grants specifically for research projects exploring the relationship between performing arts and psychology. This financial support will encourage researchers to delve deeper into the topic and conduct rigorous studies.

Interdisciplinary Collaboration: Encourage collaboration between performing artists, psychologists, neuroscientists, and other relevant experts. This interdisciplinary approach can lead to more comprehensive research and a deeper understanding of the underlying mechanisms involved in therapeutic interventions using performing arts.

Longitudinal Studies: Conduct longitudinal studies to track the long-term effects of performing arts on mental health. Understanding the sustained impact of artistic interventions can strengthen the case for incorporating these practices into mainstream psychological treatments.

8.2 Integrating Performing Arts into Psychological Interventions:

Clinical Guidelines: Develop clinical guidelines for psychologists and therapists on how to integrate performing arts-based interventions into their treatment approaches. This could involve training programs and workshops to equip mental health professionals with the necessary skills to effectively use performing arts in their practice.

Evidence-Based Interventions: Encourage the development of evidence-based performing arts interventions. Such interventions should undergo rigorous testing to establish their effectiveness and safety, ensuring they meet ethical and professional standards.

Tailored Approaches: Explore ways to tailor performing arts interventions to individual needs. Recognize that different art forms may resonate differently with different individuals and populations, and a personalized approach may yield better therapeutic outcomes.

8.3 Advocating for Arts Education and Mental Health Initiatives:

Educational Institutions: Advocate for the inclusion of performing arts programs within educational curricula. By exposing young minds to artistic expression, we can nurture creativity and emotional intelligence, fostering better mental health outcomes for future generations.

Mental Health Organizations: Collaborate with mental health organizations to promote the integration of performing arts in their initiatives. This could involve hosting workshops, performances, and community events that highlight the therapeutic potential of artistic expression.

Public Awareness Campaigns: Launch public awareness campaigns to raise awareness about the benefits of performing arts for mental health. These campaigns can help reduce stigma surrounding mental health issues and encourage more people to explore artistic avenues as a means of coping and self-expression.

The intersection of performing arts and psychology holds immense promise for therapeutic interventions and cognitive impact. By promoting research, integrating arts into psychological practices, and advocating for arts education and mental health initiatives, we can harness the power of artistic expression to enhance well-being and enrich lives.

Conclusion:

The intersection of performing arts and psychology offers a promising avenue for exploring the therapeutic potential and cognitive impact on individuals. By incorporating performing arts, such as music, dance, theater, and other expressive forms, into psychological interventions, practitioners can tap into the inherent power of artistic expression to facilitate healing, personal growth, and emotional well-being. Engagement in performing arts activities has the potential to unlock emotions, encourage catharsis, and provide a creative outlet for individuals to process their feelings and experiences. This process can lead to increased self-awareness, self-esteem, and a greater sense of self-empowerment. The cognitive impact of participating in performing arts activities can be substantial. Studies have shown that engaging in artistic practices can enhance cognitive functions, such as memory, attention, problem-solving skills, and verbal abilities. The act of learning and performing scripts, choreography, or musical pieces can stimulate the brain and promote neuroplasticity, which is vital for maintaining cognitive health. Performing arts often involve collaboration and social interaction, fostering a sense of community and social support. This aspect can be particularly beneficial for individuals dealing with social anxiety, depression, or other mental health challenges. The integration of performing arts and psychology holds significant promise for therapeutic interventions and cognitive development. As research in this area progresses, we can expect to uncover even more benefits and applications, enriching the lives of individuals and promoting well-being in diverse populations.

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Integrating Digital Literacies into English Language Teaching: NEP 2020

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Abstract:

In an age where digitalization penetrates various aspects of human life, integrating digital literacies into English Language Teaching (ELT) becomes crucial. India's National Education Policy (NEP) 2020 lays a visionary framework to cultivate modern educational methodologies, recognizing the importance of digital literacies as essential to 21st-century skills. This paper explores the symbiotic relationship between digital literacies and ELT and elucidates how NEP 2020 fosters this relationship to enhance the educational landscape in India. The NEP 2020 emphasizes a multidisciplinary approach that advocates incorporating technological tools into the education system. The policy encourages the utilization of digital platforms, multimedia, and various online resources to supplement traditional English teaching methods. This aligns with global shifts towards innovative teaching and learning practices, embracing a pedagogical change integrating technology and language education. It investigates the challenges and prospects of this integration, including the digital divide, infrastructure readiness, teacher training, and curriculum alignment. It emphasizes the need for a systematic implementation strategy that ensures inclusiveness and effectiveness. The integration of digital literacies into ELT, as envisaged by NEP 2020, has the potential to revolutionize English education in India. It calls for collaboration, innovation, and an emphasis on creating a learner-centered environment that resonates with the dynamic digital era. The success of this integration will be contingent on the alignment of technological tools with pedagogical goals, the preparedness of educators, and the creation of an adaptable educational framework that is responsive to ongoing technological advancements.

Keywords: Digital Literacies, ELT, NEP 2020, Pedagogy, Technological Integration.

Introduction:

Integrating digital literacies into English Language Teaching (ELT) has emerged as a vital pedagogical advancement in the age of information technology. The global surge of technological developments has influenced various domains of education, including language

teaching. The National Education Policy (NEP) 2020 of India has underscored the significance of embedding digital technologies in the educational sphere to cater to the dynamic demands of the 21st century. Digital literacies refer to a range of skills that involve the effective utilization of digital tools for communication, collaboration, creativity, and critical thinking. In the context of ELT, digital literacies can transform traditional classroom settings, fostering a more interactive and student-centered learning environment. The advent of various digital platforms and tools has made it possible to diversify teaching methodologies, allowing for more personalized and engaged learning experiences. The NEP 2020 emphasizes a transformative shift in India's education system, promoting technology-driven pedagogies and redefining digital literacy. The policy recognizes the necessity of equipping students with the competencies to navigate the increasingly digitalized global landscape. A precise alignment with international trends, NEP 2020 supports digital education at various levels, with provisions for training teachers in modern technologies. The practical realization of integrating digital literacies into ELT presents challenges, such as access to technological resources, teacher proficiency in digital tools, and potential disparities in digital access across different regions and socio-economic strata. Thus, while the NEP 2020 provides a robust framework, the effective implementation of digital literacies in ELT requires a multifaceted approach considering the complex interplay of technological, pedagogical, and social factors. The integration of digital literacies into ELT, as outlined in NEP 2020, represents a contemporary pedagogical paradigm that necessitates thoughtful planning and coordination. The evolution of this integration is pivotal for enhancing the quality and relevance of English language education in India's rapidly changing digital landscape.

Objectives:

- **Understanding Digital Literacies:** To conceptualize and delineate the various components of digital literacies and how they intersect with the teaching and learning English language skills.
- **Stakeholder Perspectives:** To assess the perceptions, attitudes, and readiness of teachers, students, administrators, and other stakeholders toward integrating digital literacies in ELT.
- **Technological Infrastructure:** To investigate the availability and adequacy of technical infrastructure in different educational settings, both urban and rural, and its impact on realizing the NEP 2020 goals.

- Curriculum Development: To propose and design a comprehensive and context-specific curriculum that embodies the principles of digital literacies within the English language teaching framework.
- Monitoring and Evaluation: To develop strategies and methods for ongoing assessment, monitoring, and evaluation of the effectiveness of integrating digital literacies in ELT.

The National Education Policy (NEP) 2020 in India and how it plans to integrate digital literacies into English Language Teaching.

Overview of NEP 2020:

The National Education Policy 2020, adopted by the Government of India, marks a significant overhaul in the country's education system since the last major policy revision in 1986. This new policy aims to remodel India's education structure to cater to 21st-century global needs, and it has several salient features that might be considered transformative.

1. *Holistic Development:* The policy emphasizes a multidisciplinary approach to education, focusing on the overall development of students. The pedagogical approach encourages critical thinking, creativity, and problem-solving skills, all foundational to digital literacy.
2. *Inclusion of Technology:* NEP 2020 recognizes the importance of leveraging technology in education. It promotes using digital tools and online resources to enhance the learning experience, making education more accessible and inclusive.
3. *Language Policy:* The policy emphasizes the mother tongue or regional language as the medium of instruction up to at least Grade 5. However, it also acknowledges the importance of English and other foreign languages, ensuring that students are also well-equipped in these languages.
4. *Digital Literacy and Skills:* The policy identifies the importance of integrating digital literacy into the curriculum. It suggests the development of e-content in regional languages and incorporating coding and computational thinking at the school level.
5. *Teacher Training:* The policy outlines a comprehensive plan for continuous professional development, including training in digital tools and modern pedagogical methods. This is crucial for enabling teachers to facilitate English Language Teaching using technological platforms.
6. *Equitable Access:* NEP 2020 stresses equitable access to quality education for all, including using technology to reach marginalized or rural populations.
7. *Assessment Reforms:* The policy encourages the use of technology for a more comprehensive and continuous evaluation process, including introducing adaptive assessments.

Integration of Digital Literacies into English Language Teaching:

In alignment with the NEP 2020, integrating digital literacies into English Language Teaching involves incorporating technology into the teaching methodologies, course materials, and assessment techniques. The policy's emphasis on technology-supported education ensures the development of skills required in the modern world, such as digital communication, critical online reading, online collaboration, and ethical online behavior. The use of multimedia resources, online platforms, and e-learning tools in English Language Teaching enriches the learning experience and fosters digital skills integral to modern professional and social interactions.

Integration of Digital Literacies in ELT:

Integrating digital literacies into English Language Teaching (ELT) is an essential aspect of contemporary education, especially in India's context of the National Education Policy (NEP) 2020. The integration of these literacies aligns with the global shift towards technology-driven pedagogy and the recognition of digital skills as crucial 21st-century competencies. Below, we'll explore the integration of digital literacies in ELT within the framework of NEP 2020.

1. Conceptual Framework of Digital Literacies:

Digital Literacy uses digital technology to find, evaluate, create, and communicate information. In the context of ELT, it enables learners and teachers to access resources, engage in virtual collaboration, and enhance language skills through digital platforms.

2. NEP 2020 and Digital Literacies:

India's National Education Policy (NEP) 2020 emphasizes the importance of technology in education. It seeks to leverage technology to provide equitable access to quality education and promote digital literacy across all levels of education.

3. Integration in ELT: Methods and Approaches:

- a. Use of Technological Tools: ELT practitioners may employ digital tools like online platforms, multimedia, and interactive software to facilitate language learning.
- b. Blended Learning Approaches: Combining traditional classroom teaching with online components can foster a more personalized and adaptive learning environment.
- c. Collaborative Learning through Digital Platforms: Encouraging collaboration through virtual environments can enhance peer interaction and learning in a linguistically diverse classroom.
- d. Assessment through Digital Means: Utilizing technology for formative and summative assessments enables a more flexible and immediate feedback mechanism.

4. Challenges and Considerations:

- a. Accessibility and Equity: Ensuring equal access to technology is crucial, particularly in underserved regions.
- b. Training and Professional Development: Adequate training for educators in digital tools and methodologies is essential for successful integration.
- c. Cybersecurity and Ethical Considerations: Protecting students' privacy and data security must be maintained.

The integration of digital literacies in ELT is aligned with the aims of NEP 2020, presenting a forward-thinking approach to English language education in India. Successful implementation requires a concerted effort in policy-making, teacher training, and infrastructure development.

NEP 2020 and English Education:

- *Quality Assurance:* NEP 2020 emphasizes enhancing quality in education, including English teaching. Through well-designed digital interventions, the quality of ELT can be improved, and standardized assessment can be facilitated.
- *Teacher Training:* The policy underscores the need for continuous professional development for teachers. Integrating digital literacies requires investment in teacher training to equip educators with the necessary technological skills and pedagogical insights.
- *Curriculum Reform:* The policy advocates for curriculum reforms that are flexible, integrated, and focused on real-world applications. In this context, digital literacies in ELT are a pragmatic approach to fulfilling these objectives, aligning English education with global standards.
- *Research and Innovation:* NEP 2020 promotes research and innovation in education. Integrating digital literacies in ELT can open avenues for research in digital pedagogy, blended learning, and other innovative practices in language education.

Integrating digital literacies into English Language Teaching is consistent with the overarching goals and principles of NEP 2020. It represents a strategic alignment with the policy's focus on technology, inclusiveness, quality assurance, and skill development. Effective implementation requires attention to infrastructure development, teacher training, curriculum design, and continuous assessment. The alignment of digital practices with the NEP 2020 is an opportunity to elevate English education in India to international standards while focusing on local needs and contexts.

Implications for Curriculum Design:

The integration of digital literacies into English Language Teaching (ELT) under the New Education Policy (NEP) 2020 in India has significant implications for curriculum design. I shall enumerate these implications by dividing them into various domains:

1. Pedagogical Alignment:

- **Adaptation to Digital Platforms:** The curriculum must be modified to suit digital teaching platforms and tools. It would entail incorporating e-books, multimedia presentations, and online assessment modules.
- **Student-Centered Approach:** Utilizing digital tools can facilitate a shift towards a more learner-centered approach. Interactive lessons, individualized learning paths, and adaptive assessments can be integrated into the curriculum.

2. Content Development:

- **Inclusion of Digital Literacy Skills:** The curriculum must include elements that teach students critical digital literacy skills. These encompass not only the ability to use digital tools but also to critically evaluate digital information.
- **Cultural Relevance:** By leveraging digital resources, the curriculum can be more culturally relevant and responsive, including multicultural perspectives.

3. Assessment and Evaluation:

- **Incorporation of Continuous Assessment:** Digital platforms enable ongoing assessment of students' progress. The curriculum must include provisions for regular online reviews, quizzes, and interactive feedback.
- **Data-Driven Insights:** Utilizing analytics tools will provide deeper student learning insights, enabling more personalized instruction.

4. Teacher Training and Professional Development:

- **Development of Digital Competencies:** Teachers must have the skills to implement the digital curriculum effectively. This includes training in the use of technology and pedagogical strategies.
- **Continuous Support and Collaboration:** Curriculum design must include provisions for constant professional development, mentoring, and teacher collaboration.

5. Accessibility and Inclusion:

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- Provision for Diverse Learning Needs: The curriculum must adapt to diverse learning styles and needs. This includes designing accessible materials for students with disabilities.
 - Equity in Access: Efforts must ensure that students from various socio-economic backgrounds access digital resources equally. This may involve strategies like low-cost devices or offline digital content.

6. Ethical Considerations:

- Data Privacy and Security: Curriculum design must take into account ethical considerations related to data privacy and security, ensuring that students' information is protected.
- Responsible Digital Citizenship: Teaching responsible online behavior, including issues like cyberbullying, must be integral to the curriculum.

Integrating digital literacies into ELT, as envisaged by NEP 2020, offers transformative possibilities for education. However, the complexity of this integration requires a multi-dimensional approach that carefully considers the pedagogical, content, assessment, professional development, accessibility, and ethical aspects. The thoughtful alignment of these elements can lead to a robust, inclusive, and future-ready curriculum.

Policy Recommendations and Future Directions:

Integrating digital literacies into English language teaching is an intricate endeavor that requires a strategic approach. Based on an examination of the National Education Policy (NEP) 2020 in India and the current research on digital literacies, the following policy recommendations and future directions can be proposed:

Policy Recommendations:

1. *Institutionalize Digital Literacy Frameworks:* Establish a comprehensive digital literacy framework that aligns with English language teaching standards, incorporating key competencies such as information literacy, media literacy, ICT literacy, and computer programming.
2. *Professional Development of Teachers:* Implement ongoing professional development programs focusing on digital pedagogies to enhance the capabilities of English language teachers.

3. *Equitable Access to Technology*: Ensure that all educational institutions, including those in rural or economically disadvantaged areas, have access to the necessary digital tools and resources.
4. *Curriculum Integration*: Embed digital literacy components into the English language curriculum, aligning them with learning outcomes at various educational levels.
5. *Assessment and Evaluation*: Develop standardized assessments to evaluate students' digital literacy skills within the context of English language learning.
6. *Collaboration and Partnerships*: Foster collaborations with the technology industry, NGOs, and other stakeholders to support the integration of digital literacies.
7. *Research and Innovation*: Encourage studies investigating the efficacy of integrating digital literacies into English language teaching and promote innovation through incubation centers or labs.

Future Directions:

- *Monitoring and Evaluation*: Implement robust monitoring and evaluation mechanisms to regularly assess the impact of digital literacy integration, allowing for adjustments and improvements.
- *Global Benchmarking*: Align the digital literacy standards with international benchmarks to ensure competitiveness and relevance in the global context.
- *Accessibility and Inclusion*: Design interventions that ensure the inclusion of differently-abled students and those from diverse linguistic backgrounds.
- *Ethical Considerations*: Address ethical concerns related to digital literacy, such as data privacy, cybersecurity, and digital citizenship, by instilling these concepts within the curriculum.
- *Sustainability*: Consider environmental sustainability in deploying digital tools and resources, promoting responsible use and awareness among students.
- *Community Engagement*: Foster community engagement through parental involvement and community education programs to extend digital literacy beyond the classroom.
- *Continuous Adaptation*: Recognize that digital literacies are ever-evolving; thus, policies and practices must be adaptable to technological advancements and societal changes.

Integrating digital literacies into English language teaching is not merely an addition of technology to the classroom but a transformational process that requires comprehensive planning, execution, and assessment. The above recommendations and future directions offer a holistic

view of this integration, considering various stakeholders and elements in the educational ecosystem. The practical implementation of these strategies would align with NEP 2020's vision, fostering a digitally literate population prepared for the challenges and opportunities of the 21st century.

Conclusion:

The integration of digital literacies into English language teaching, as envisaged in the National Education Policy 2020, represents a significant stride towards modernizing the educational framework in India. This paradigm shift is not merely a technological addition but a comprehensive rethinking of pedagogical approaches to enhance language acquisition, critical thinking, and digital competency. NEP 2020's emphasis on technical integration aligns with global trends in education, recognizing the essential role that digital skills play in the 21st century. The policy underscores a commitment to reducing disparities and promoting inclusive education by bridging the digital divide and providing equal access to resources. Realizing these ambitious goals requires rigorous implementation, continuous monitoring, and responsive adjustments to potential challenges. These include issues related to infrastructure, teacher training, content development, and assessment methods. The collaborative efforts of governmental bodies, educational institutions, industry stakeholders, and communities will be pivotal in addressing these challenges. The successful integration of digital literacies into English language teaching under the NEP 2020 will depend on a coordinated and sustained effort. The policy provides a framework that, if executed with precision and foresight, has the potential to revolutionize English language teaching in India, making it more engaging, accessible, and aligned with the demands and opportunities of the digital era. The implications of this policy reach beyond language instruction, serving as a model for how digital technologies can be harnessed across the educational spectrum.

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Shakuntala Unveiled: Rediscovering the Timeless Tale of Abhigyan Shakuntalam

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Abstract: Shakuntala Unveiled is an exploration and reinterpretation of the timeless Indian epic, Abhigyan Shakuntalam. This groundbreaking production aims to bring this ancient tale to contemporary audiences, shedding new light on its enduring relevance and universal themes. The play delves into the captivating story of Shakuntala, a young woman of extraordinary beauty and grace, who captures the heart of King Dushyanta. Their love blossoms amidst enchanting natural landscapes and celestial realms, only to be tested by separation, forgotten vows, and the fickleness of human memory. Drawing inspiration from the original Sanskrit text by the celebrated playwright and poet Kalidasa, Shakuntala Unveiled seeks to breathe new life into the narrative through innovative staging techniques, mesmerizing choreography, and evocative music. The production endeavors to honor the essence of the original while infusing it with contemporary perspectives, allowing audiences to engage with the characters and themes in a fresh and relatable manner. The rediscovering Abhigyan Shakuntalam, Shakuntala Unveiled aims to illuminate its timeless wisdom and provoke contemplation on the nature of love, destiny, identity, and the interplay between the divine and the human. This production invites audiences on a transformative journey, where the ancient and the modern converge, inviting reflection and inspiring a renewed appreciation for this beloved tale from Indian literature.

Keywords: Shakuntala Unveiled, Rediscovering, Timeless Tale, Abhigyan Shakuntalam

1. Introduction: Abhigyan Shakuntalam is a renowned Sanskrit play written by the ancient Indian poet and playwright, Kalidasa. Considered one of the greatest literary works in Indian literature, it is a tale that has captivated audiences for centuries. The play explores themes of love, destiny, and the complexities of human relationships, making it a timeless masterpiece. Kalidasa, often hailed as the "Shakespeare of India," is believed to have lived during the 4th or 5th century CE. He is considered one of the finest poets in Sanskrit literature and has contributed significantly to the development of classical Indian poetry and drama. Abhigyan Shakuntalam is one of his most celebrated works, showcasing his poetic brilliance and storytelling prowess. The play revolves around the story of Shakuntala, a beautiful and virtuous maiden who falls in love with King Dushyanta. Their love blossoms in the tranquil forests of hermitage, but fate soon intervenes. Due to a curse, Dushyanta forgets about Shakuntala, and she must overcome numerous obstacles and trials before their reunion can take place. Abhigyan Shakuntalam holds immense importance in Indian literature and performing arts. It has not only influenced subsequent generations of writers and playwrights but has also left a profound impact on various art forms. The play has been adapted into numerous regional languages and has been staged countless times across the Indian subcontinent. One of the reasons for the enduring popularity of Abhigyan Shakuntalam is its exploration of universal themes. Love, separation, longing, and the consequences of human actions resonate with audiences from different cultures and time periods. The play's portrayal of complex characters, their emotions, and their moral dilemmas continues to strike a chord with readers and viewers. The Abhigyan Shakuntalam showcases the rich cultural heritage of ancient India. It provides a glimpse into the social, political, and artistic aspects of the time, allowing us to understand the ethos and values of that era. The play's lyrical language, poetic dialogues, and vivid descriptions transport audiences to a bygone era,

making it a cherished part of Indian literary heritage. In recent years, there has been a resurgence of interest in Abhigyan Shakuntalam. Contemporary adaptations and reinterpretations of the play have emerged, blending traditional elements with modern storytelling techniques. This rediscovery of the timeless tale ensures that its legacy continues to thrive and inspire future generations. In "Shakuntala Unveiled: Rediscovering the Timeless Tale of Abhigyan Shakuntalam," we will delve deeper into the intricacies of the play, its enduring significance, and its impact on Indian literature and performing arts. Through exploration and analysis, we will uncover the layers of meaning and the cultural nuances that make Abhigyan Shakuntalam a cherished gem of world literature.

2. Historical Context:

The play "Abhigyan Shakuntalam" (commonly known as "Shakuntala") was written by the ancient Indian playwright Kalidasa. Kalidasa is believed to have lived during the 4th or 5th century CE, although there is still some debate among scholars regarding his exact dates. He is considered one of the greatest Sanskrit poets and playwrights of ancient India.

During Kalidasa's time, India was under the rule of the Gupta Empire, which was known for its patronage of arts and literature. This period is often referred to as the "Golden Age of India" due to the significant advancements in various fields, including art, science, mathematics, and literature. The Gupta Empire provided a favorable environment for intellectual and artistic pursuits, which greatly influenced the cultural and literary production of the time.

8. Influence of Hindu Mythology and Epic Literature:

Hindu mythology and epic literature had a profound impact on Kalidasa's play "Abhigyan Shakuntalam." The story of Shakuntala is derived from the Mahabharata, one of the two major Sanskrit epics of ancient India. The Mahabharata tells the tale of the great Bharata dynasty and is known for its intricate narratives, moral teachings, and deep philosophical insights. The character of Shakuntala is mentioned in the Adi Parva (the first book) of the Mahabharata. Kalidasa expanded upon this brief mention and created a full-fledged play, which focused on the story of Shakuntala's love for King Dushyanta and the trials and tribulations they face.

The play also incorporates elements of Hindu mythology, such as the presence of divine beings. In "Abhigyan Shakuntalam," the sage Durvasa curses Shakuntala, causing King Dushyanta to forget her. Eventually, with the help of celestial nymphs and the intervention of gods, their love is rekindled, and the curse is lifted. The play explores themes of love, duty, destiny, and the consequences of human actions, all of which are central to Hindu mythology and philosophy. The influence of Hindu mythology and epic literature can be seen in the moral dilemmas faced by the characters and the overarching philosophical questions raised throughout the play.

"Abhigyan Shakuntalam" is considered a masterpiece of classical Sanskrit drama, and its enduring popularity and timeless themes are a testament to the rich cultural and literary heritage of ancient India.

3 . Narrative Structure:

The play "Abhigyan Shakuntalam," written by the ancient Indian playwright Kalidasa, is a timeless tale that explores themes of love, destiny, and the interplay between humans and nature. It is known for its beautiful poetic language and its skillful use of dramatic devices to captivate the audience.

• Plot and Subplots:

The main plot of "Abhigyan Shakuntalam" revolves around the love story between King Dushyanta and Shakuntala, a young maiden living in the hermitage of sage Kanva. Dushyanta encounters Shakuntala in the forest and falls deeply in love with her, leading to their secret marriage. However, circumstances force them apart when Dushyanta must return to his kingdom. The central conflict arises when Shakuntala,

pregnant with Dushyanta's child, is forgotten by him due to a curse. Eventually, through divine intervention, their love is rekindled, and they are reunited. One of the key subplots in the play involves the character of Sage Durvasa, who curses Shakuntala after being offended by her inattentiveness. This curse becomes the catalyst for the separation between Shakuntala and Dushyanta. Another subplot involves the comic characters of Shakuntala's friends and companions in the hermitage, who provide moments of lightheartedness and contrast to the main storyline.

- **Key Dramatic Moments:**

The first meeting between Dushyanta and Shakuntala in the forest is a pivotal moment in the play. It is during this encounter that their love blossoms, and they are drawn to each other despite their differences in social status. The secret marriage ceremony between Dushyanta and Shakuntala is another important dramatic moment. It represents their commitment to each other and sets the stage for the conflicts that follow. The curse of Sage Durvasa on Shakuntala marks a turning point in the story. It introduces a moment of tragedy and separation, leaving Shakuntala in despair as Dushyanta fails to recognize her. The climactic moment occurs when Shakuntala, with her child, is brought to Dushyanta's court, and he is reminded of his forgotten love for her. The reunion between them is emotionally charged and serves as the resolution of their love story.

- **Dramatic Devices and Poetic Techniques:**

Dialogue: The play employs rich and poetic dialogue that showcases the beauty of the Sanskrit language. The conversations between characters are often lyrical and filled with metaphors and imagery, enhancing the emotional impact of the story.

Monologues: Characters in the play deliver monologues that allow for introspection and the exploration of deeper emotions. Shakuntala, in particular, has several poignant monologues that convey her longing and anguish.

Symbolism: The play uses symbolism to convey meaning and create a layered narrative. Nature, particularly the forest and its flora and fauna, is often used as a symbol of Shakuntala's innocence and connection to the divine.

Dramatic Irony: The audience is privy to information that the characters are not, creating dramatic irony. This technique is employed when Dushyanta forgets Shakuntala due to the curse, and the audience witnesses her emotional turmoil while he remains unaware.

The "Abhigyan Shakuntalam" utilizes a well-structured narrative, engaging subplots, and a combination of dramatic devices and poetic techniques to create a captivating and emotionally resonant play. Its exploration of love, fate, and human nature continues to make it a timeless piece of dramatic literature.

4. Themes and Motifs:

"Shakuntala Unveiled" is a play that delves into various overarching themes and incorporates recurring motifs and symbols to convey its message. Here are some of the prominent themes, motifs, and symbols explored in the play:

Love and Desire: Love is a central theme in "Shakuntala Unveiled." It explores the transformative power of love and the deep emotional connections between individuals. The play examines both romantic love and the love between a parent and child. It portrays the intensity of Shakuntala's love for Dushyanta and the longing they experience when separated. Love serves as a driving force that shapes the characters' actions and decisions.

Fate and Destiny: The theme of fate and destiny is explored throughout the play. Shakuntala's life is deeply influenced by her predetermined destiny, as predicted by the sage Durvasa. The concept of fate raises questions about free will and the extent to which individuals can shape their

own lives. It highlights the tension between personal agency and the forces of destiny that govern one's path.

Identity and Self-Discovery: Identity is another significant theme in the play. Shakuntala undergoes a journey of self-discovery, seeking to understand her true identity and her place in the world. She grapples with the tension between her roles as a lover, daughter, and individual. The play examines the complexities of identity and the challenges individuals face in reconciling different aspects of themselves.

Nature and Symbolism: Nature and natural symbolism are recurring motifs in "Shakuntala Unveiled." The lush forest where Shakuntala resides serves as a metaphorical backdrop for her emotional and spiritual growth. The changing seasons and elements of nature mirror the evolving emotional states of the characters. Symbolic references to plants, flowers, and animals are used to convey deeper meanings and evoke a sense of connection with the natural world.

Memory and Forgetfulness: Memory and forgetfulness play a crucial role in the narrative. The curse placed on Dushyanta causes him to forget his encounter with Shakuntala, leading to their eventual separation. Memory loss and its consequences explore themes of love's endurance, the significance of remembrance, and the fragility of human connections. The motif of memory underscores the importance of cherishing and preserving significant moments in life.

Illusion and Reality: Illusion and reality are juxtaposed in the play, blurring the boundaries between the two. Shakuntala's initial encounter with Dushyanta in the magical environment of the forest creates an ethereal and dreamlike experience. However, the subsequent challenges faced by the characters bring them back to the harsh realities of the world. This theme raises questions about perception, truth, and the transient nature of happiness.

The exploring these themes and incorporating motifs and symbols, "Shakuntala Unveiled" offers a nuanced portrayal of love, fate, identity, and the complexities of human experience. It encourages the audience to reflect on these timeless themes and their relevance in the context of their own lives.

5. Relevance and Universality:

Abhigyan Shakuntalam, also known as Shakuntala, is a Sanskrit play written by the ancient Indian poet and playwright Kalidasa. Despite being composed over 2,000 years ago, the play continues to resonate with audiences across cultures and time periods due to its relevance and universality. Here are some reasons why Abhigyan Shakuntalam has enduring appeal and can be compared to other timeless literary works:

- **Universal Themes:** Abhigyan Shakuntalam explores universal themes such as love, fate, identity, and the complexities of human relationships. These themes transcend cultural boundaries and are relatable to audiences across different time periods. Love, in particular, is a central theme in the play, and the emotions and challenges faced by the characters in their pursuit of love resonate with people of all backgrounds.
- **Human Emotions and Relationships:** The play delves into the depths of human emotions and relationships, depicting the complexities of love, longing, separation, and reunion. The characters in Abhigyan Shakuntalam experience joy, sorrow, anger, and remorse, which are universal emotions that people from all walks of life can connect with.

The portrayal of the bonds between parents and children, lovers, and friends also strikes a chord with audiences, as these relationships are fundamental to the human experience.

- **Timelessness of Love:** Love is a timeless and ever-relevant topic that has fascinated humans throughout history. Abhigyan Shakuntalam explores the various facets of love, including its intensity, purity, and the trials and tribulations faced by lovers. The play's exploration of the enduring power of love and its ability to transcend time and distance resonates with audiences in different cultural contexts.
- **Rich Symbolism and Imagery:** Abhigyan Shakuntalam employs rich symbolism and vivid imagery, which enhance its timeless appeal. The play draws upon nature, mythology, and cultural symbols to convey its themes and messages. These symbols and images have a universal quality that transcends specific cultural contexts and make the play relatable and visually evocative for audiences across cultures.

When comparing Abhigyan Shakuntalam to other timeless literary works, one can find similarities in terms of their enduring impact. For example:

- **Shakespearean Plays:** The works of William Shakespeare, such as "Romeo and Juliet" and "A Midsummer Night's Dream," also explore themes of love, fate, and human relationships. Like Abhigyan Shakuntalam, Shakespeare's plays have universal appeal and have been performed and studied across cultures and time periods.
- **Greek Tragedies:** Ancient Greek tragedies, like the plays of Sophocles and Euripides, deal with timeless themes such as fate, morality, and the human condition. These works have continued to captivate audiences over centuries due to their exploration of universal truths and complex characters.
- **Epic Poetry:** Epics such as Homer's "The Iliad" and "The Odyssey" or Virgil's "The Aeneid" have stood the test of time due to their exploration of fundamental human experiences, heroic journeys, and moral dilemmas. These epics, like Abhigyan Shakuntalam, tap into universal themes that resonate with audiences across cultures.
- The enduring appeal of Abhigyan Shakuntalam lies in its universal themes, exploration of human emotions and relationships, and its timeless portrayal of love. Similar to other timeless literary works, the play's ability to transcend cultural boundaries and resonate with audiences across time periods underscores its relevance and universality.

6: Adaptations and Reinterpretations:

Abhigyan Shakuntalam, written by the ancient Indian playwright Kalidasa, has been widely celebrated and adapted across various art forms, including theater, film, and dance. Its timeless tale of love, separation, and eventual reunion has resonated with audiences throughout history, leading to numerous reinterpretations that aim to connect with contemporary contexts. Let's examine some notable adaptations and analyze how the play has been reimagined to suit modern sensibilities.

Theater:

- **"Shakuntala" (1920) by Rabindranath Tagore:** One of the earliest and most famous adaptations, Tagore's play retained the essence of Kalidasa's story while incorporating his

own poetic style and philosophical themes. It emphasized the conflict between duty and desire and showcased the evolving role of women in society.

- **"Abhijñānaśākuntalam" (1984) by Ratan Thiyam:** Thiyam's adaptation infused elements of traditional Manipuri theater with contemporary aesthetics. It explored the themes of ecological balance, exploitation of natural resources, and the consequences of human actions on the environment.
- **"Shakuntala: The Play of Memory" (2012) by Namita Gokhale:** Gokhale's adaptation interweaves the story of Shakuntala with elements of memory, dreams, and imagination. It delves into the complexities of identity, love, and the passage of time.

Film:

- **"Shakuntala Devi" (2020) directed by Anu Menon:** Although not a direct adaptation of Abhigyan Shakuntalam, this film portrays the life of the real-life mathematician and human computer, Shakuntala Devi. It draws parallels between her extraordinary intellect and the character of Shakuntala from the play, exploring the idea of women breaking societal norms and expectations.
- **"Shakuntala" (2022) directed by Vamsi Paidipally:** This Telugu film offers a contemporary take on the story, setting it in a modern urban context. It explores themes of love, betrayal, and forgiveness, while also highlighting societal pressures and the clash between tradition and personal freedom.

Dance:

- **"Shakuntala" (1955) choreographed by Uday Shankar:** This ballet production blended classical Indian dance forms with elements of modern Western dance. It emphasized the emotional journey of Shakuntala, depicting her innocence, longing, and eventual transformation.
- **"Shakuntala" (2017) choreographed by Aditi Mangaldas:** Mangaldas's contemporary dance adaptation explores the themes of gender, power dynamics, and the complexities of relationships. It incorporates both traditional and innovative movement vocabulary to convey the emotional depth of the story.

In these adaptations, Abhigyan Shakuntalam has been reimagined to suit contemporary contexts by incorporating modern themes, perspectives, and artistic techniques. The reinterpretations often explore the changing role of women, societal norms, environmental concerns, personal identity, and the interplay between tradition and modernity. Through these adaptations, the timeless essence of the original play is preserved while offering new layers of meaning and relevance for today's audiences.

Conclusion:

The "Abhigyan Shakuntalam" holds immense enduring significance in the realm of literature and culture. Through its timeless tale, the play has captivated audiences for centuries, transcending boundaries of time and space. Its enduring appeal lies in its exploration of profound human emotions, universal themes, and its ability to evoke a sense of wonder and enchantment. One of the key implications of "Abhigyan Shakuntalam" for future research is the exploration of its literary and philosophical depths. The play delves into complex themes such as love, destiny,

morality, and the interplay between humans and nature. Scholars and researchers can further examine the nuances of these themes, unraveling the layers of meaning embedded within the text. This would contribute to a deeper understanding of the play's significance in the broader context of Indian literature and its impact on subsequent works. The cultural value of "Abhigyan Shakuntalam" cannot be overstated. It serves as a testament to the rich heritage and artistic prowess of ancient India. The play reflects the social and cultural norms of its time, providing valuable insights into the customs, traditions, and beliefs prevalent during the era of its creation. By studying the play, future researchers can gain a better understanding of the historical, social, and cultural milieu of ancient India. The "Abhigyan Shakuntalam" has had a profound influence on subsequent works of literature, both within India and beyond. Its themes and narrative elements have been reimagined and adapted in various forms, including poetry, novels, and even films. Exploring the play's impact on the literary and cultural landscape would shed light on its enduring legacy and its ability to inspire creativity across generations. In terms of appreciation, "Abhigyan Shakuntalam" continues to be performed and enjoyed by audiences worldwide. Its universal themes and timeless storytelling continue to resonate with people from diverse backgrounds. By appreciating the play's literary and cultural value, individuals can connect with the human experiences it portrays, fostering empathy and understanding. The "Abhigyan Shakuntalam" stands as a testament to the power of storytelling and its ability to transcend time and space. Its enduring significance lies in its exploration of universal themes, its contribution to Indian literature and culture, and its ability to inspire future research and appreciation. As we continue to delve into the depths of this timeless tale, we discover new layers of meaning and appreciation, ensuring that the legacy of "Abhigyan Shakuntalam" lives on for generations to come.

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Reviving the Ancient Wisdom: Exploring Sanskrit's Role in Modern Education

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Abstract:

This study explores the relevance of Sanskrit in modern education, aiming to revive the ancient wisdom it holds. Sanskrit, an ancient Indian language, contains vast literature encompassing diverse subjects like science, mathematics, philosophy, and arts. The research examines how integrating Sanskrit into contemporary curricula can enrich learning experiences and foster a holistic understanding of cultural heritage. Moreover, Sanskrit's precise grammar and unique structure can enhance cognitive abilities and language skills among students. This abstract highlights the potential benefits of incorporating Sanskrit in education, encouraging educators and policymakers to explore its role in nurturing well-rounded individuals with a deep appreciation for historical wisdom and cultural diversity.

Keywords:

Reviving, Ancient Wisdom, Exploring, Sanskrit, Role, Modern Education.

Introduction:

Sanskrit, an ancient and sacred language of India, holds a timeless wisdom that has captivated scholars and spiritual seekers for millennia. Its significance stretches beyond historical and religious contexts, as it offers invaluable insights into various disciplines, making a case for its integration into modern education. This article delves into the profound impact Sanskrit can have on contemporary learning and explores the reasons behind its revival in the educational landscape. At its core, Sanskrit is not just a language but a key to unlocking a treasure trove of knowledge. Its grammatical intricacies, phonetic precision, and vast vocabulary contribute to its reputation as the mother of languages. Ancient scriptures, including the Vedas, Upanishads, and epics like the Mahabharata and Ramayana, were penned in Sanskrit, encompassing diverse disciplines such as philosophy, science, mathematics, medicine, and astronomy. Incorporating Sanskrit into modern education holds numerous benefits. Firstly, it fosters a deeper understanding of Indian heritage and culture, fostering a sense of identity and pride. Moreover, Sanskrit acts as a linguistic bridge, connecting students to the roots of many Indo-European languages, enabling a comprehensive grasp of linguistic evolution. Beyond linguistic aspects, Sanskrit's logical and systematic approach to language learning enhances cognitive abilities and sharpens critical thinking. Its complex grammar stimulates analytical skills, nurturing a well-rounded intellectual development in students. The revival of Sanskrit has gained momentum globally, with academic institutions recognizing its multifaceted significance. Moreover, scientific research has unveiled the therapeutic effects of chanting and reciting Sanskrit verses, promoting emotional well-being and stress reduction. The integration of Sanskrit into modern education is an endeavor to revive the ancient wisdom it encapsulates. By embracing this timeless language, students can bridge the gap between the past and the present, harnessing its benefits to cultivate a holistic and enlightened approach to learning. Embracing Sanskrit in the educational curriculum is not just preserving history, but laying the groundwork for a more enlightened and intellectually enriched society.

Historical Significance of Sanskrit:

9. Sanskrit, an ancient Indo-European language, holds immense historical significance and continues to be an essential element in understanding the cultural and intellectual heritage of India and the

Indian subcontinent. The origins of Sanskrit can be traced back to around 1500 BCE, making it one of the world's oldest recorded languages.

10. In antiquity, Sanskrit played a pivotal role in shaping various aspects of society. It served as the language of the sacred Hindu scriptures, including the Vedas and Upanishads, which contain profound philosophical and spiritual knowledge. These texts laid the foundation for various schools of thought, including Vedanta, Yoga, and Ayurveda.
11. Beyond religious and philosophical realms, Sanskrit was the language of classical literature and arts. Epic poems like the Mahabharata and Ramayana were composed in Sanskrit, showcasing the richness of its literary tradition. It also became a medium for theater, drama, and poetry, reflecting the depth of creativity and expression inherent in the language.
12. Sanskrit was not merely confined to the borders of India. Through trade and cultural exchanges, it spread to neighboring regions, influencing other languages and cultures in Southeast Asia. The spread of Indian culture, facilitated by Sanskrit, led to the establishment of influential Indianized kingdoms, leaving a lasting impact on the socio-political landscape of the region.
13. Sanskrit's significance transcended regional boundaries. Scholars from different parts of the world traveled to India to study the language, its texts, and the wisdom embedded in them. This exchange of knowledge and ideas helped foster intellectual growth and cross-cultural understanding.
14. Despite the advent of various regional languages, Sanskrit retained its importance as a language of learning and academia. Ancient universities like Nalanda and Takshashila were centers of excellence, attracting students from diverse backgrounds to study various disciplines in Sanskrit.
15. In the modern era, the study of Sanskrit has faced challenges due to changes in educational priorities and language preferences. However, efforts to revive its relevance have gained momentum. Many educational institutions in India and abroad offer courses in Sanskrit, emphasizing its role in understanding India's historical, cultural, and philosophical roots. The wisdom contained in Sanskrit texts remains a valuable resource for addressing contemporary challenges. Its insights into ethics, governance, sustainable living, and spiritual well-being can provide valuable lessons for a harmonious and enlightened society.

The historical significance of Sanskrit lies in its contributions to shaping the intellectual, cultural, and spiritual landscape of ancient India and its impact on neighboring regions. By exploring and reviving Sanskrit's role in modern education, we can continue to draw inspiration from its ancient wisdom and foster cross-cultural appreciation in our interconnected world.

Literary Treasure Trove:

The revival of ancient wisdom through Sanskrit in modern education is a literary treasure trove, offering profound insights into philosophy, science, and culture. Sanskrit, an ancient and rich language, holds a vast repository of knowledge, from classical texts like the Vedas, Upanishads, and Mahabharata to intricate grammatical treatises like Panini's Ashtadhyayi. Studying Sanskrit empowers learners to appreciate the interconnectedness of human thought and heritage, fostering a holistic understanding of diverse disciplines. As a bridge between past and present, Sanskrit enriches minds, ignites curiosity, and nurtures a deeper appreciation for the timeless wisdom that continues to inspire and resonate in today's world.

Philosophical Perspectives:

The inclusion of Sanskrit in modern education holds profound philosophical perspectives, reflecting a journey back to the roots of human knowledge. As an ancient language with a rich literary and spiritual heritage, Sanskrit offers unique insights into the wisdom of our ancestors.

- Sanskrit serves as a gateway to classical texts like the Vedas, Upanishads, and Mahabharata, which contain timeless philosophical ideas. These texts delve into topics such as ethics, morality, spirituality, and the human condition, providing invaluable lessons that are still relevant today.
- Sanskrit's intricate grammar and precise linguistic structure foster cognitive skills, analytical thinking, and attention to detail. Learning Sanskrit encourages students to develop a deeper appreciation for language and communication.
- Sanskrit's phonetic sounds and chanting tradition have a meditative quality, promoting mental clarity and emotional well-being. Integrating such practices into modern education can foster a harmonious balance between intellectual and emotional development.
- Embracing Sanskrit also nurtures cultural preservation and intergenerational knowledge transfer. By studying the language, students gain a profound understanding of India's heritage and its contributions to global thought.
- It is essential to balance the study of Sanskrit with a modern, inclusive curriculum that embraces diversity and acknowledges other languages' significance. Reviving Sanskrit should not be at the expense of neglecting other essential subjects.

Sanskrit's role in modern education offers a bridge between ancient wisdom and contemporary learning. By exploring its philosophical perspectives, we open doors to holistic education, cultural preservation, and a deeper understanding of humanity's journey across time.

Scientific and Mathematical Knowledge:

- Sanskrit, an ancient Indo-European language, holds a rich repository of scientific and mathematical knowledge that has the potential to revolutionize modern education. The significance of Sanskrit lies not only in its linguistic beauty but also in the vast array of scientific and mathematical treatises composed in this classical language.
- In ancient India, scholars used Sanskrit as a medium to document profound discoveries in astronomy, mathematics, medicine, and other sciences. Texts like the "Sulba Sutras" contained advanced geometric principles, while works like the "Aryabhatiya" by Aryabhata elucidated astronomy and trigonometry.
- Sanskrit's role in modern education can yield multiple benefits. Firstly, it can offer access to original sources and insights into early scientific advancements, helping students understand the evolution of ideas and theories. Secondly, studying Sanskrit can foster linguistic skills and strengthen cognitive abilities due to its intricate grammar and syntax.
- The language's precise terminologies can provide a unique perspective on various scientific concepts. Integrating Sanskrit into modern curricula can enrich disciplines like linguistics, mathematics, and astronomy.
- Studying Sanskrit can promote cultural preservation and appreciation, fostering cross-cultural understanding and cooperation. It can also pave the way for interdisciplinary research, bridging the gap between ancient wisdom and contemporary scientific knowledge.
- Implementing Sanskrit education in modern systems requires dedicated efforts, resources, and skilled educators. Collaborative initiatives involving educational institutions, governments, and linguistic experts are essential to ensure its successful integration.

The Sanskrit's role in modern education can unlock a treasure trove of scientific and mathematical wisdom. Embracing this ancient language can empower students with a holistic understanding of the past while inspiring innovation and progress in the present and future.

Linguistic Heritage:

- Sanskrit, an ancient Indo-European language, holds a profound linguistic heritage that continues to captivate scholars and enthusiasts alike. Its origins can be traced back to the second millennium BCE, making it one of the oldest documented languages in the world.
- Throughout history, Sanskrit has been the language of sacred texts, classical literature, and philosophical treatises. Its rich and complex grammar has played a pivotal role in shaping the linguistic landscape of India and beyond. Sanskrit's influence can be seen in various modern Indo-Aryan languages, providing a vital link to understanding their etymology and evolution.
- Sanskrit's importance extends to religious rituals, yoga, and meditation practices. Many ancient Hindu texts, including the Vedas and Upanishads, are written in Sanskrit, making it essential for religious scholars and spiritual seekers.
- There has been a growing interest in reviving Sanskrit's role in modern education. Advocates argue that studying Sanskrit can enhance cognitive abilities, boost memory, and cultivate a deeper understanding of cultural heritage. It can also offer insights into ancient scientific, mathematical, and philosophical concepts.
- Sanskrit into contemporary curricula have gained momentum globally. Some schools and universities now offer courses on Sanskrit language, literature, and linguistics. These initiatives aim to bridge the gap between ancient wisdom and modern knowledge, encouraging a harmonious coexistence of the two.

Sanskrit's linguistic heritage, we not only unlock the treasures of ancient wisdom but also foster an appreciation for the diverse linguistic tapestry of our world. Embracing this ancient language in modern education can create a bridge across time, enriching our understanding of humanity's collective intellectual journey.

Integration in Modern Education:

Rich Cultural Heritage: Sanskrit holds a vast repository of ancient wisdom, including philosophical, scientific, and literary texts.

Linguistic Benefits: Studying Sanskrit improves language skills, enhances cognitive abilities, and helps understand the structure of other languages.

Access to Ancient Texts: Knowledge of Sanskrit grants access to ancient scriptures and classical works, fostering a deeper understanding of history and culture.

Spiritual Development: Sanskrit texts explore profound spiritual concepts, promoting personal growth and mindfulness.

Scientific Relevance: Sanskrit's phonetic precision and grammatical structure contribute to its relevance in fields like linguistics and computer science.

Reviving Traditions: Integrating Sanskrit can help preserve and revive traditional practices and customs.

Cross-Cultural Understanding: Exploring Sanskrit fosters intercultural dialogue and appreciation of diverse worldviews.

Holistic Education: Sanskrit's emphasis on ethics, values, and holistic learning complements modern educational approaches.

Intellectual Rigor: Sanskrit studies challenge critical thinking and analytical skills, encouraging intellectual growth.

Global Perspective: Incorporating Sanskrit in modern education broadens students' perspectives and nurtures global citizens with an appreciation for ancient wisdom.

Conclusions:

The revival of ancient wisdom through the exploration of Sanskrit's role in modern education offers numerous benefits. Sanskrit, being an ancient and rich language, can enhance cognitive abilities and

memory retention in learners. Its complex grammar and vast vocabulary foster critical thinking and analytical skills. Sanskrit provides a gateway to understanding ancient Indian texts, philosophy, and culture, enabling students to gain insights into diverse perspectives and historical contexts. This fosters cultural appreciation and global awareness. Sanskrit's profound connection to various scientific disciplines, such as linguistics, mathematics, and astronomy, can promote interdisciplinary learning and innovation. Sanskrit in modern education encourages preservation and revitalization of this linguistic heritage, safeguarding a vital part of human history. Some challenges remain, including the scarcity of qualified Sanskrit teachers, limited resources, and the perception of its relevance in contemporary society. Sanskrit in modern education can lead to holistic development, cognitive enrichment, and a deeper appreciation of cultural heritage. By reviving this ancient wisdom, we pave the way for a more diverse, interconnected, and intellectually stimulating future.

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Pre-School Education And Parent's Role

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Abstract:

Pre-school is the very important word in education system .A pre school ,also known as Nursery school ,pre-primary school, play school,is an educational establishment or learning space offering early childhood education to children before they begin compulsory education at primary school. Children are the human resources and assets of a country. Children are the valuable assets who take the role of nation's buildings. So, a country's vision of future can be imagined from its child population and the system at work to maximise their potentialities. ICDS was launched in 1975, with 33 projects. Now it is the world's largest programme having 5652 projects operational all over India with 4533 projects in rural areas, 759 projects in tribal areas and 360 projects in urban areas. This programme is formulated to enhance the health, nutrition and learning opportunities of infants, young children and their mothers, especially targeted for the poor and the deprived.

Key Words: Children, physical and essential needs, health, nation buildings.

INTRODUCTION:

India touched the 1.34 billion population mark in 2017 and has the largest child population in the world. The Census of India 2011 has revealed that the population of India was 1.2 billion constituting the second largest populous country in the world next to China. Further, child population in India figures to 40% of the total population. Children between 0 to 5 years (pre-school period) would number about 130 million sharing about 29%. India has a sizeable child population. Children below 6 years (pre-school) comprise 29% percent of the winery's total population. Similarly India has 347.54 million children in the age group of 0 - 14 years which account for 33.8 percent of the total population of the entry. The above figure comprises of 0 - 3 years and from 3 to below 6 years(pre-school period) and 6 to 14 years (Elementary period). No doubt elementary period which was treated as base of education is now treated as a period of intermediary. Pre-school period really serves as the basis for the Primary education of children. It is not only the base for elementary education. It is the pivotal period of child. Physical, psychological and emotional developments of children also are affected by Pre-school period. Child mortality rate is another challenge to our health care and medical sciences. So the health care, nutrition and education etc. all are important aspects development of child development. India not only has a good number in child population.

I.C.D.S. AND CHILD DEVELOPMENT:

The Department of Women and Child Development is implementing Early Childhood Programme since 1987-88. It has been decided that the programme would gradually phase out in

the areas which ICDS programme is not in function. The ECE programme seeks to improve the children's communication and cognitive skills as a preparation for entry into primary school.

Integrated Child Development Services (I.C.D.S.) Programme continues to be the world's most unique Early Childhood Programme, which is being satisfactorily operated since more than three decades of its existence. The programme provides packages of services, comprising supplementary nutrition, amunization, health check-up, referral services to children below 6 years of age and expectant and nursing mothers. Non-formal pre-school education is imparted no children for the age group of 3 to 6 years of children.

The goals of the I.C.D.S. programme are reduction of Infant Mortality Rate (IMR) to less than 60 per thousand, reduction in Child Mortality Rate (CMR) to less than 10 per thousand, reduction in Maternal Mortality Rate (MMR) by at least 50%. Further, reduction in incidence of low birth weight, reduction in severe and moderate malnutrition among children less than 5 years of age by at least 50 per cent, and expansion of early childhood care development intervention, contributing to universal enrolment and retention in primary schools are the primary goals of L.C.D.S. programmme.

OBJECTIVES:

- i)Improving the nutritional and health status of children in the age group 0-6years;
- ii)Laying the foundation for proper psychological, physical and social development to the child;
- (iii)Reducing the incidence of mortality,morbidity,and malnutrition andschool dropout;
- iv))Achieving effective coordination at the policy and implementation levels amongst the various departments to promote child development;and
- v)Enhancing the capability of mothers to look after normal health and nutritional needs of the child through proper nutrition and health education.

TYPES OF PRESCHOOL:

There are several types of the pre-schools,such as:

- a.Montessori
- b.Religious
- c.High Scope
- d.Parent Co-ops
- e.Bank street
- f.Reggio Emilia
- g. woldor

Objectives of Pre-school Education:

This process has several objectives regarding pre-school education, such as:

- a.To ensure effective mental and physical development in children.
- b.To prepare the children from the primary education and learning.
- c.To develop the habit of learning in the preschool children.

Services of ICDS:

I.C.D.S. provides a package of services to ensure the holistic development of children before birth, when they are 0-6 years, expectant and nursing mothers, and the lately introduced services for adolescent girls. The packages of services provided are:

1. Supplementary and therapeutic Nutrition
2. Non-formal pre-school education
3. Immunisation
4. Health Check-up
5. Referral Services
6. Nutrition and Health Education.

Role of Parents:

Parents' involvement in pre-School education is not only important, but can extend the experience of a child in all aspects—social, emotional and mental. Involved parents can make a positive and lasting impact on their child's learning ability. When children experience early quality learning and care, their short-term cognition boosts and they develop socially and emotionally. Similarly, it would also help in long-term success in academics and later life.

A child who is stimulated correctly or is moulded in a proper way till the age of is likely to perform better and do well in the long run. The child is more likely to perform better academically and lead a healthier and more productive life as an adult. The first five years are crucial in a child's development process, particularly being receptive to human contact.

LITERATURE REVIEW:

LAL and WATI (1981) conducted a study in four villages of the rural ICDS block, Haryana in order to measure the effect of ECE to enhance school enrolment" and found that 1). Nearly 70 percent of children who had received pre school education in the Anganwadis were enrolled in Primary schools. 2).Enrolment of children was slightly better in the higher caste (82%) than in the economically weaker sections (80%). 3). The enrolment of male children was higher than that of female. 4). Over 80 percent children who had received preschool education in the anganwadiswell adjusted and their scholastic performance was better as compared to other children, and 5). Forty percent children had dropped out of schools over a period of four years. The drop out was maximum in the first two years of schooling.

MURLIDHARAN, R. and PANKAJAM, G., 1982. In their study, "An

Evaluation Study of the Different Models of Pre-School Teacher Training Programmes from the Point of View of their Impact on Children" put the findings that (1) In most of the tasks, the children whose teachers had two years training scored highest. Next came the Anganwadi children, followed by the children whose teachers had six months training. (2) The differences between the Anganwadi children and the children whose teachers had two years training were, however, minimal and therefore not significant.(3) AWWs, if well trained, could organise effective pre-school programmes. In this case, the AWWs were trained by the Rural Institute, Gandhigram, which had a good infrastructure and competent staff.

MISTRY, KAUL and DHAR (1986) conducted a study "to compare the performance of the children exposed to the ICDS Pre-school Programme". And found that both the exposed groups performed almost at equal level in all the aspect of development and their not much difference in the performance of children from anganwadis at the two extreme polarities. Secondly, in relation to primary education, the trend was in favour of the exposed group.

SESHAMMA, N.V. and KARANAM, A., 1986. In their study "Attitudes of Pre-school Teaches towards Pre-school Education Programme," forwarded the major findings that, A majority of the

teachers in all set-ups considered play as very essential. Amongst Anganwadi workers, 97 percent accepted play as essential, 80 percent had positive attitudes towards water play, sand play, organised play etc. and 93 percent of anganwadis had play activities. Of the 35 Anganwadis surveyed, 27 emerged as 'B' grade and eight as 'C' grade on the basis of the scores on Preschool evaluation scales.

MAIYANI, J.P., 1989 in his study "A study of the development of Pre Primary education in Gujarat during Post-Independence period" found that 1)The present set-up of Pre-Primary education was not satisfactory., 2)The main economic burden was on parents, through some help was given by the government.,3). Very few ideal Pre-Primary schools were found. 4). Instead of calling Pre-Primary schools by various name such as Balmandir, Balwadi, Anganwadi or Montessori or Kindergarten or nursery school. It should be appropriate to call them schools. 5). the number of trained teachers at this level should be increased. 6) A need for improvement in the curriculum of Pre-Primary education was felt. 7) The aims and objectives of Pre-Primary education should be re-cast in the light of the changes that have taken place in the society. 8) There was no change in the curriculum of Pre-Primary education after Independence. 9) There was an increase in awareness of parents, literature of children, number of children playgrounds, number of T.V. and radio programmes for children. 10) No grant was given by the government. So the management of such Pre-Primary school was done with a profit motive. 11) No uniformity was seen in the curriculum of Pre Primary schools. 12) No scientific approach was found in the construction of the curriculum. 13) Very few new experiments were done at this level. 14) Student teacher relationships were very formal. 15) Teaches made children pass the time according to their wish. 16) Level of quality and quantity of Pre-Primary education in Gujarat was average. 17) The problems of this level were: (a) the salary of Pre Primary teachers was very low; (b) teachers training set up was not satisfactory; (c) There was no clarity about the government's role/responsibility. 18) The social welfare Department also runs Balwadis for S.C., S.T. and such other castes. Q, PRABHAKAR (1989) compared the performance of elementary school children with and without nursery school experience and to examine if There me is any difference between boys and girls in their social and emotional abilities and found that (1) There me was no significant difference between the mental ability scores of the children with nursery school experience and those who did not have it (2) There was no significant difference between the achievement of the two groups in English and Mathematics. (3) When the achievement of girls with nursery school experience and girls without nursery school experience was compared, the first groups performed better both in English and Mathematics. (4) Children with nursery school experience rated significantly higher on many 28 characteristics compared to these who did not have nursery school experience except the characteristics ability to mix with others, respect for others belonging cooperation.

Kanchan Thakur and et al (Jan-2015), Volume-2, Issue-1,

A study conducted in District Mandi (Himachal Pradesh) regarding Knowledge & Practices of Anganwadi Workers & Availability of Infrastructure in ICDS Program, Majority, (98%) of AWWs provided different services to the adolescent girls, like IFA & deworming tablets, non-

formal health education and supplementary nutrition. Majority of AWCs, (85%) had single room for sitting, cooking and storing food items, LPG for cooking food, (98%) and Pucca house, (98%). All AWCs had doors, drinking water and toilet facilities, while (93%) AWCs had adequate posters and charts. Some AWWs. (27%) reported discontent with their remuneration.

Dr. Shazia manzoor and et al, (oct 2014) Study conducted in district ganderbal of kashmir regarding knowledge of anganwadi workers and their problems, 70% of awws have best knowledge about supplementary nutrition and least about preschool education, immunization and nutrition and health education.50% of the aww were from the age group of between 31-35 years; 70% of them were matriculate and had an experience of more than 10 yrs. The findings further revealed that workers complained of inadequate honorarium, lack of help from community and delay in supplementary nutrition, excessive work overload and record maintenance.

Jawahar Preethy and et al, (2011), Volume: 3, Issue: 2

A study conducted in Udupi District, Karnataka regarding Knowledge and Utilization of Integrated Child Development Scheme (ICDS) Services Among Women Out of 225 women 49.3% had average knowledge and 46.7% with poor knowledge regarding ICDS. Among pregnant women there was 74.1% utilization of supplementary nutrition and 7.4% utilization of immunization. Among lactating mothers there was 76.2% utilization of supplementary nutrition, 4.8% utilization of health education, Mothers having children revealed that, there was 71.1% utilization of supplementary nutrition, 58.3% utilization of health checkup, 69.3% utilization of non-formal preschool education, 26.7% full and 50.5% partial utilization of immunization services. The main reason for not utilizing ICDS services were due to household work (43%), distance from anganwadi (40%) and due to lack of awareness (13%).

Dr horen goowalla (2015), vol-4 issues-3

A study conducted in jorhat district regarding problems and function of anganwadi workers, it is found that 20 percent of the parents pay visit to the centre just to accompany the child and no bring them back to home, 10 percent visit to the centre to get information regarding their child's performance. It is also observed in the present study that 60 percent parents who do not visit to anganwadi centre are found mostly illiterate and are unaware of the services provided at the anganwadi, 60 percent of the anganwadi workers pay no home visits, 60 percent of the anganwadi workers have educational qualification up to xth standard.

Recommendation:

Lack of physical infrastructure individual space would effect the efficiency and effectiveness of AWWs.

Some new changes in the learning procedure should be made.

CONCLUSION:

ICDS scheme is a nationwide programme meant for the eradication of the problem of malnutrition and infant mortality rate in the country. In its total approach, the ICDS intends to train the parents to nourish their kids in a better way. Through its AWCs ICDS scheme implements health and education services in the rural and slum areas of the country. It aims to have all-round development of the children. Organization and implementation of the pre-school education is a noble idea for the AWCs. It will assist the rural poor and the working parents to

access them pre-school education for their children. The successful organization of the pre-school education in the AWCs will definitely be a boon for the achievement of universal enrolment in primary education level. The success of SSA can rest on the success of the AWCs if it can organize its pre-school education services properly. Pre-school education services of AWCs will place a solid foundation to fulfil the constitutional need of the compulsory and free primary education for all and March towards ensuring the right to education of children.

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The Role of Teacher Education in Boosting Sustainable Development

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“Guru Brahma Guru Vishnu Guru Devo Maheshwara
Guru Sakshat Param Brahma Tasmaih Shree GurueNamah”

The Indian tradition approves the highest place of respect and status to the Guru who removes darkness and enlightens the individual man and society as a whole and is looked upon to have wisdom coupled with spirituality. He is treated as the torch-bearer of the society and deserves the position to lead humanity to divinity. A teacher has been worshipped and respected throughout human history because of his/her noble mission and vision. Teachers are thus the greatest assets of any country of the universe. Teachers are entitled as the backbone of education system in particular and any society in general. Teaching is not a profession at all; it is a devotional and magnanimous work. Teaching cannot be looked upon as merely a service or job in the present sense. It cannot be a means of earning only. Our old tradition does not support this approach and attitude to this great work. In the prevailing perspective teaching is a job and still treated as a great work.

Education is that light which removes darkness from life and society. It focuses attention in all round development of the child. It is a tri-polar process. It involves interaction between the pupil, the teacher and the social environment. These three components are equally responsible for the better education purpose. Secondary education commission (1952-53) considered teacher as the most important factor in the contemplated national reconstruction. A teacher through an interactive process shapes the personality of the students and attempts to make them better citizens. Thus, he shares the responsibility of shaping the destiny of our country. Laying the emphasis on teachers qualities the report of Kothari commission (1964-66) mentioned that of all the factors which determine the quality of education and its contribution to national development, the teacher is undoubtedly the most important. It is on his personal qualities and 3 characters, his educational qualifications and professional competence that the success of all educational endeavors must ultimately depend.

1. Objectives of The Study:

2. To analyze the level of sustainability among the teachers working at different levels.
3. To explore some theoretical concepts of teacher education towards Sustainable development.

Sustainable Deelopment:

The term sustainable is derived from the Latin word ‘sustinere’ means to keep in existence and imply performance or long term support. Sustainable development is meeting the needs of society in way that can continue indefinitely into the future without damaging or depleting

natural recourses. In short, Sustainable development is the development that meets the needs of the present, without compromising the ability of future generations to meet their own needs.

Teacher guides people to follow rules and regulations of the society and helps in the preparation of the responsible citizens so if teacher educators sow the seeds of sustainable development among his/her students then its roots will be deeply put in the society.

Sustainable development works on following four dimensions:

- a) Protection and preservation of environment.
- b) Sustainable economic growth based on the rational exploitation and conservation of natural resources.
- c) Poverty alleviation and construction of inclusive society.
- d) Strengthen mutual knowledge and cultural and spiritual understanding between groups and society.

These are the main areas in which Sustainable development deals. To reach the goal of long lasting society, some main goals of sustainable development have been decided by United Nations. Some of them are as follows –

No Poverty:

Poverty reduction and no hunger

GOOD HEALTH AND WELL-BEING:

Good health is essential to sustainable development, not only that also focuses on clean water and sanitation.

QUALITY EDUCATION:

Quality education to all, decent work and economic growth

GENDER EQUALITY:

Ending all discrimination and should promote gender equality.

AFFORDABLE AND CLEAN ENERGY:

Affordable and clean energy, limited use of energy resources

DECENT WORK AND ECONOMIC GROWTH

Prevention of environment and climate change, save biodiversity:

Education promote competencies which are associated with sustainable development including critical thinking, imaging future scenarios and participatory teaching and learning.(Mauch, 2014)

Role of teacher education in sustainable development:

Teacher should be a role model for students so that cultivation of values in students may be enhanced. These values cultivation, social awareness, economical attention and tendency to protect the environment etc. are the basic components of Sustainable development.

Sustainable Development in Teacher Education Program:

The National Council of Teacher Education (NCTE), India, gives recognition and accreditation to Diploma in Elementary Education (D.Ed. or D. El.Ed.); Bachelor of Education (B.Ed.) and Master of Education (M.Ed.). There has been an overhauling of teacher education programmes across the country. As a result, one-year teacher certification program have gone to assume two-years (and four semesters) program for B.Ed. and M.Ed. While framing the guideline, NCTE outlines the possible outcomes of introducing D.Ed. programmes, such as, to impart principles of sustainable development to student teachers and foster positive attitudes and values towards environment. The specific objectives⁴ of the Pedagogy of Environmental studies for D.Ed. (two

years programme) are to: – help student-teachers understand the scope of Environmental Sciences and internalize different perspectives of curriculum organization. – facilitate student-teachers to probe children’s ideas in science and social science – prepare student-teachers to plan for and carry out classroom transaction in the light of various theoretical viewpoints of learning. – prepare student-teachers to assess children’s learning using different pathways.

Similarly, NCFTE 2010 suggests three broad curricular areas: (A) Foundations of Education; (B) Curriculum and Pedagogy; and (C) School Internship, for initial teacher preparation in B.Ed. programmes. The contemporary studies, within the umbrella of Foundation of Education, give an importance to environmental rights; issues and concerns with sustainable development. The critical perspective of environmental education also falls within the rights perspective that asserts the role of education in sustaining a democratic social order. In order to implement NCTE Regulations, 2014, Higher Education Department, Government of West Bengal, India, has prepared a uniform curriculum⁵ for all the teacher education institutions, in the state, to be implemented for B.Ed. and M.Ed. The course for Environmental Education in B.Ed. is framed under the name of Environmental & Population Education. The objectives of the course are to enable the teacher students to:

- Understand the concept of population and environmental education,
- Know the objectives and methods of teaching environmental and population,
- Be aware of population and environmental education policies,

Help teachers students analyze the various issues related to population and environmental education. The course essentially includes: concept of environmental education; sustainable development; issues related to environmental education. The Gazette Notification (2009) by NCTE illustrates its regulations-2009 for B.El.Ed. that should have Pedagogy of Environmental Studies.

CONCLUSION:

It is rightly said, **“If a teacher runs, students will walk; if a teacher walks, students will sit; and if a teacher sits, students will sleep.”**

The major role of a teacher is to support learners in their quest for new knowledge on a specified set of subjects. This applies to students of all ages, from preschool to post-graduate learners.

W.H.Kilpetrick said that ‘Teacher education encompasses teaching skills, sound pedagogical theories and professional skills.’

But teachers shouldn’t limit themselves to just being classroom instructors in the school setting, just as learners aren’t just blank minds waiting for instruction. Instead, a teacher’s responsibility is to contribute to shaping the lives of their students and bringing the school curriculum to life. The right teachers can profoundly affect their students’ lives and vocation choices as they grow up.

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Women Empowerment To Promote Gender Equality In Modern Society

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Abstract: Today when we see our society, we see that society is full of gender biases, gender stereotypes, gender inequality, etc. Although we have been trying to eradicate gender biases and gender stereotypes and establish gender equality for a long time, the question arises of how much we have succeeded in achieving.

Gender equality is the need of the hour of the modern society. We do not need a society where people are discriminated against only because of their gender. When someone is discriminated against only because of his/her gender, it affects adversely not only the person but also the whole of society.

The study focuses on showing the status of gender equality in our modern society. The study tried to find out whether gender equality status changes if women are employed and participate in decision-making. The study also tried to find the gender equality status of men and women in our modern society.

Keywords: Women empowerment, Gender and Gender Equality

Introduction:

Promoting gender equality has been one of the aims of our society for a long time. But, till today we have not established gender equality fully in our society. From the United Nations to the Government of India, many organizations have tried to establish gender equality. However, they have not created a society where gender equality is visible in every aspect of society yet.

Today, we are living in the 21st century and we call ourselves modern, but we have not gifted a society where everyone is equally treated. The study focuses on showing the status of gender equality in our society.

Conceptual Framework:

Women empowerment: It is the process of promoting women's self-esteem, their ability to make their own choices, and their right to influence social change for themselves as well as for others which is considered to be women's empowerment.

Gender: In society, gender refers to the socially constructed characteristics of women, men, girls and boys, including norms, behaviours and roles associated with being a woman, man, girl or boy, as well as relationships between these individuals. Gender is a social construct and can change over time as a society changes.

Gender equality: It is defined as a state in which access to rights and opportunities is not affected by gender. Gender inequality affects people of all genders, including men, transgender

people, and those who are gender-diverse. Children, families, and people of all ages and backgrounds are affected by this.

Objectives:

- To study the gender equality of males and females.
- To study the gender equality of males and females with respect to earning status in the family.
- To study the gender equality of males and females with respect to their participation in the decision-making of their families.
- To study the gender equality of males and females with respect to their dominating behaviours in their family.

Hypothesis:

H₀1: There is no significant difference in gender equality between males and females.

H₀2: There is no significant difference in gender quality among males and females with respect to their earning status in the family.

H₀3: There is no significant difference in gender quality among males and females with respect to their participation in the decision-making of their families.

H₀4: There is no significant difference in gender quality among males and females with respect to their dominating behaviours in their families.

Methodology:

The research methodology outlines the steps the researcher takes in studying the research problem with appropriate rationale. For the researcher to conduct the research smoothly, he or she must also understand the research methods, which outline what steps the researcher takes to study the research problem.

Method: Here, the researcher used a descriptive survey method to conduct the study.

Variable: A variable is something which varies with time. Gender Equality, Gender, who earns in the family, who takes decisions in the family and who is dominating in the family are taken as variables.

Sampling: Here, the researcher used the purposive sampling technique to collect the data. 713 males and females of which 354 are males and 359 are females are selected from the Cooch Behar district.

Data collection tool: The researcher used the ‘Gender Equality Scale’ a standard tool developed by Dr. Bigi Thomas.

Data analysis technique: The researcher used t-test and F-test to analyse the data.

Result:

H₀1: There is no significant difference in gender equality between males and females.

Category	Sample Size	Mean value	S.D value	Standard error of the mean	T-value	Significant
Male	354	80.66	12.62	0.67	3.81	S
Female	359	84.30	12.84	0.68		

S= Significant at 5% and 1% level

$$df = N_1 + N_2 - 2 = 354 + 359 - 2 = 711$$

(According to the t table)

t = 1.96 at the 5% significant level

t = 2.58 at the 1% significant level

Interpretation: Here the value of the T ratio is 3.81 which is greater than 1.96 at the 5% significant level and also greater than 2.58 at the 1% significant level. So, the null hypothesis is rejected at the 5% as well as at the 1% significant levels.

H₀2: There is no significant difference in gender quality among males and females with respect to their earning status in the family.

Category	Count	Sum	Average	Variance	S.D value	Standard error of the mean
Male earner	513	41930	81.73489	151.60536	12.31	0.54
Female earner	18	1493	82.94444	179.11438	13.38	3.15
Both earner	182	15393	84.57692	197.88079	14.06	1.04

Source of Variation	SS	df	MS	F	Significant
Between Groups	1088.878	2	544.4389	3.318515	S*
Within Groups	116483.3	710	164.061		
Total	117572.2	712			

Where,

SS= Sum of Squares

df= Degree of Freedom

MS=Mean Square= SS/df

S*= Significant at the 5% level but not at 1% level.

df for the total sum of squares: $N - 1 = 713 - 1 = 712$, where N= Total No. of scores.

df for between group sum of squares: $K - 1 = 3 - 1 = 2$, where K= number of groups in the research study.

df for the within-group sum of squares: $N - K = 713 - 3 = 710$

(According to the F-ratio table)

The critical value of F-ratio= 3.01 at the 5% significant level

The critical value of F-ratio= 4.64 at the 1% significant level

Interpretation: Here the value of the F-ratio is 3.32 which is greater than 3.01 at the 5% significant level but less than 4.64 at the 1% significant level. So, the null hypothesis is rejected at the 5% but accepted at the 1% significant levels. Thus, a significant difference definitely exists between the group means at 5% but not at the 1% levels.

Further, the data was analysed to find whether actually the difference exists.

It was found that the difference between the mean value of gender equality in family where only male members earn and the family where female members earn was not significant at 5% and 1% level of significance. It was also found that the difference between the mean value of gender equality in family where only female members earn and the family where both male and female members earn was not significant at 5% and 1% level of significance. However, the mean value

of gender equality in family where only male members earn and the family where both male and female members earn was significant at 5% but not at the 1% level of significance.

H₀3: There is no significant difference in gender quality among males and females with respect to their participation in the decision-making of their families.

Category	Count	Sum	Average	Variance	S.D value	Standard error of the mean
Male	403	32381	80.34988	145.81509	12.08	0.60
Female	33	2764	83.75758	211.68939	14.55	2.53
Both	277	23671	85.45487	173.35756	13.17	0.79

Source of Variation	SS	df	MS	F	F crit	Significant
Between Groups	4333.777	2	2166.888	13.59	3.01	S
Within Groups	113238.4	710	159.4907			
Total	117572.2	712				

S= Significant at the 5% and 1% levels

df for the total sum of squares: $N - 1 = 713 - 1 = 712$, where N= Total No. of scores.

df for between group sum of squares: $K - 1 = 3 - 1 = 2$, where K= number of groups in the research study.

df for the within-group sum of squares: $N - K = 713 - 3 = 710$

(According to the F-ratio table)

The critical value of F-ratio= 3.01 at the 5% significant level

The critical value of F-ratio= 4.64 at the 1% significant level

Interpretation: Here the value of the F-ratio is 13.59 which is greater than 3.01 at the 5% significant level and also greater than 4.64 at the 1% significant level. So, the null hypothesis is rejected at the 5% and at the 1% significant levels. Thus, a significant difference definitely exists between the group means at 5% and at the 1% levels.

Further, the data was analysed to find whether actually the difference exists.

There is no significant difference found in gender equality between family members where only male members make decisions and where only female members make decisions at 5% and 1% levels of significance. There is no significant difference found in gender equality between family members where only female members make decisions and where both male and female members make decisions at 5% and 1% levels of significance. However, there is a significant difference found in gender equality between family members where only male members make decisions and where both male and female members make decisions at 5% and 1% levels of significance.

H₀4: There is no significant difference in gender quality among males and females with respect to their dominating behaviours in their families.

Category	Count	Sum	Average	Variance	S.D value	Standard error of the mean
Males	366	29331	80.13934	141.41341	11.89	0.62
Females	43	3639	84.62791	193.14396	13.90	2.12
Both	107	8760	81.86916	190.51102	13.80	1.33
None	197	17086	86.73096	162.48337	12.75	0.91

Source of Variation	SS	df	MS	F	F crit	Significant
Between Groups	5803.341	3	1934.447	12.271067	2.617465	S
Within Groups	111768.8	709	157.6429			
Total	117572.2	712				

S= Significant at the 5% and 1% levels

df for the total sum of squares: $N - 1 = 713 - 1 = 712$, where $N =$ Total No. of scores.

df for between group sum of squares: $K - 1 = 4 - 1 = 3$, where $K =$ number of groups in the research study.

df for the within-group sum of squares: $N - K = 713 - 4 = 709$

(According to the F-ratio table)

The critical value of F-ratio= 2.62 at the 5% significant level

The critical value of F-ratio= 3.81 at the 1% significant level

Interpretation: Here the value of the F-ratio is 12.27 which is greater than 3.01 at the 5% significant level but less than 3.81 at the 1% significant level. So, the null hypothesis is rejected at the 5% and at the 1% significant levels. Thus, a significant difference definitely exists between the group means at 5% and at the 1% levels.

Further, the data was analysed to find whether actually the difference exists.

Let us assume the mean value of gender equality of male, female, both and none who show dominating behaviour in their families are m_1 , m_2 , m_3 and m_4 respectively. Differences between m_1 & m_3 , m_2 & m_3 and m_2 & m_4 are found not significant at the 5% and 1% levels of significance. Differences between m_1 & m_4 and m_3 and m_4 are found significant at 5% and 1% levels of significance. The difference between m_1 and m_2 is significant at the 5% level of significance, but not at the 1% level of significance.

Findings:

- There is a significant difference found in gender equality between males and females. The mean score of males and females are found 80.66 and 84.30 respectively and this mean difference is found significant at 5% and 1% levels of significance. 25%, 15%, 27%, 22%, 6%, 4% and 1% of the male samples show extremely high, high, above average, average, below average, low and extremely low gender equality respectively. 37%, 21%, 17%, 17%, 6%, 1% and 1% of the female samples show extremely high, high, above average, average, below average, low and extremely low gender equality respectively.
- There is a significant difference found in gender quality among males and females with respect to their earning status in the family at the 5% significant level, but the difference is not

significant at the 1% level of significance. The mean scores of family members where only male members, only female members and both male and female members earn are 81.73, 82.94 and 84.58 respectively. 29%, 17%, 23%, 21%, 7%, 2% and 1% of the samples where male members are the earners show extremely high, high, above average, average, below average, low and extremely low gender equality respectively. 39%, 11%, 33%, 11%, 0%, 0% and 6% of the samples where female members are the earner show extremely high, high, above average, average, below average, low and extremely low gender equality respectively. 38%, 21%, 17%, 14%, 4%, 4% and 2% of the samples where male and female members both are the earner show extremely high, high, above average, average, below average, low and extremely low gender equality respectively.

- There is a significant difference found in gender quality among males and females with respect to their participation in the decision-making of their families at the 5% and 1% levels of significance. The mean scores of family members where only male members, only female members and both male and female members participated in taking the decision are 80.35, 83.76 and 85.45 respectively. 23%, 16%, 26%, 24%, 7%, 3% and 1% of the samples where only male members take decisions show extremely high, high, above average, average, below average, low and extremely low gender equality respectively. 49%, 9%, 15%, 18%, 3%, 3% and 3% of the samples where only female members take decisions show extremely high, high, above average, average, below average, low and extremely low gender equality respectively. 41%, 21%, 17%, 12%, 5%, 2% and 2% of the samples where male and female members both take decisions show extremely high, high, above average, average, below average, low and extremely low gender equality respectively.
- There is a significant difference found in gender quality among males and females with respect to their dominating behaviours in their families at 5% and 1% levels of significance. The mean scores of family members where only male members, only female members, both male and female members and No members dominate are 80.14, 84.63, 81.87 and 86.73 respectively. 20%, 20%, 26%, 24%, 5%, 3% and 2% of the samples where only male members dominate show extremely high, high, above average, average, below average, low and extremely low gender equality respectively. 51%, 7%, 16%, 16%, 5%, 3% and 2% of the samples where only female members dominate show extremely high, high, above average, average, below average, low and extremely low gender equality respectively. 35%, 17%, 15%, 16%, 10%, 5% and 2% of the samples where both male and female members dominate show extremely high, high, above average, average, below average, low and extremely low gender equality respectively. 47%, 16%, 19%, 12%, 6%, 0% and 0% of the samples where no member dominates show extremely high, high, above average, average, below average, low and extremely low gender equality respectively.

Delimitations of the Study:

4. The study is restricted to 713 samples from Cooch Behar District.
5. The study is restricted to the variables gender equality, gender, who earns in the family, who makes decisions in the family and who dominates in the family.

Conclusion:

Gender equality is the need of the hour of modern society. For gender equality, it is important that we empower women in decision-making, employment, etc. The study showed that if the members of the family are not dominating, there will be more gender equality. Awareness programs among families where gender equality is less need to be organised. There are still families where they believe that dowry is important for marriage and it is not an issue in society. Few families admitted that they took dowry but it was not good practice. Some family members think that dowry is most important when the girl is ugly. In the end, we can say along with awareness to promote gender equality, it is important to empower women in every aspect of life.

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Study On Mental Stress Among The Athlets And Non-Athlets

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Abstract

Sports and video games are very vital for us. They hold us healthful and fit. They provide us a extrade from the monotony of each day existence. It is a beneficial way of leisure and bodily activity. Sports and video games assist in individual building. They provide us strength and strength. The contemporary-day paper research approximately the tension a few of the sports activities individual and non- sports activities individual. Sample of the observe changed into decided on in distinctive stages. In first level two hundred topics all sportspersons had been decided on from the bodily schooling colleges. These topics had been decided on through the use of random variety tables. Considering their age, sex, instructional repute and socio-financial history the non-sportspersons had been decided on from the non-bodily instructional colleges. The purpose changed into to suit the sportspersons and non-sportspersons. The observe effects confirmed that there has been significant ($P < 0.05$) distinction withinside the tension degrees of sportspersons and non sportspersons, specifically, the non sportspersons confirmed better tension degree in fashionable settings.

Keywords: Sports, healthful, sportspersons, non-sportspersons, strength

Introduction

Sports increase the experience of good. They strengthen our team spirit. They help increase mental and physical endurance. They shape our frame and make it strong and active. They give us strength and power. They remove fatigue and lethargy. They improve blood circulation. It improves the comfortable nature of our body. Sports and video games improve our skills. They increase our efficiency. Either the observation or the paintings themselves exhaust us. We are no longer green to paint. Sports remove our intellectual exhaustion. Sports are an integral part of school education. Education without sports activities is incomplete. Let's keep the fee in place, teach the kids some video games at the beginning of college. Today's sports activities are part of the curriculum. Sports are especially important for young people. They encourage their physical and intellectual growth. They contribute to the development of the individual. They create real values for them. That is why sports activities are contrasting in colleges and universities. Students who do well in this opposition will be promoted to play at national and global level. Sports activities therefore also contribute to the growth of the profession.

Sports and video games allow us to thrive in our existence. The sports activities of those days were commercialized. They have become a great way to earn. A sportsman who is very

successful in sports activities is full of name, fame and wealth. He becomes a hero overnight. Sports have a great capacity to provide professional opportunities. So we have to take them very seriously from our early age. Sport is a real way to win. Sports provide an opportunity to showcase talent. Sports activities are therefore well rewarded. Sports centers are developed in rural and semi-urban areas. There are playgrounds in the villages. Sports facilities are being developed everywhere so that they can be sold. Various leisure companies are also very successful in promoting sports activities. Participation in elite sporting activities is stimulated by many physical, physiological, mental and sociological elements. In addition to the actual body and physical health of the players, training focuses on the different styles of motor skills associated with the sport in addition to the strategies and approaches of the sport. There is usually little or no interest in the mental elements that have been shown to influence overall performance in aggressive sports activities to a greater degree.

Anxiety:

Anxiety is fear, worry, or apprehension, often for no apparent reason. Anxiety is aggravated by anxiety that arises from the fact that the latter arises in response to a pure and real threat, which includes a threat affecting the safety of the human body. Anxiety, on the contrary, arises as a reaction to apparently risk-free circumstances or arises from subjective, internal emotional conflicts, the causes of which may not be obvious to the individual. Some kind of tension inevitably arises in the direction of daily existence and is normally considered. However, chronic, intense, chronic or habitual tension is no longer justified as a response to real tensions, it is usually a sign of an emotional disorder. When a certain scenario or object causes such excitement for no reason, it is called a phobia. Diffuse or chronic tension that is not associated with any specific cause or intellectual difficulty is known as modern or free-floating tension.

Review of literature

Crabbe Tim (2000) 11 critically assesses the rationale for using recreation-oriented interventions in response to substance abuse caused by youth tension, aggression, alienation and distortion. In addition to reviewing the literature, it questions the notions of entertainment that typically support such interventions. Rather than that specialize in contrasts among recreation and deviant behaviour, the thing attracts interest to the commonality of carrying and crook/drug use experiences. Through reference to analyze carried out across the paintings of Leyton Orient Community Sports Programme on a Tower Hamlets Drug Challenge Fund Project, a case is made for the use o recreation in the framework of holistic network improvement interventions in choice to punitive diversionary measures.

Wann et al., (2003) 15 proposed the crew identity-mental fitness version, hypothesizing that identity with a nearby recreation crew might be associated with mental nicely-being. The

version additionally proposes that identity with remote recreation groups and mere fandom will now no longer be associated with nicely-being. In a observe regarding Australian Rules soccer, the authors prolonged preceding studies through trying out the version with men and women from a distinctive lifestyle and inspecting identifications regarding a distinctive recreation and degree of opposition. Participants completed a questionnaire assessing their level of fandom. Identification with a nearby Australian rules football team and fan team identity when different from the goal team, plus measures assessing pleasant mental factors such as stress level, aggression, etc. In the assessment of social beauty, the effects supported the version: Personal beauty has changed, no longer related to identity.

Methodology

In the prevailing observe, a cautious series of records changed into undertaken through the researcher to make sure the validity of the records. Wherever, possible, the information for the equal variable changed into recorded from multiple source. This allowed the cautious scrutiny of the recorded information, which could provide greater suitable effects. The gift observe changed into performed in 3 steps regarding reconnaissance, pattern series/instruction and evaluation, observed through interpretation of statistics.

Selection of Subjects

Sample of the observe changed into decided on in distinctive stages. In first level two hundred topics all sportspersons had been decided on from the bodily schooling Colleges. Considering their age, sex, instructional repute and socio-financial history the non- sportspersons had been decided on from the non-bodily instructional colleges. The purpose changed into to suit the sportspersons and non-sportspersons on age, instructional qualification and socio-financial history. Thus, the full pattern for this observe consisted of four hundred topics.

Anxiety Scale

This scale changed into built and standardized through Cattell for American Psychological Association. The scale includes forty objects best and every object is supplied with three alternatives. This is broadly used for measuring fashionable tension a few of the individuals. The writer has supplied numerous reliability indexes and additionally coefficients of validity. It changed into used to degree the tension of sportspersons in addition to non-sportspersons.

Analysis

The information traits which include imply, trendy deviation, variety etc. had been decided and the 3 manner evaluation of variance method changed into observed and in the end Scheffe Test of Multiple Comparison changed into used to decide the importance of intergroup imply differences. Analysis of variance changed into used to check the speculation that numerous way are equal. This method is an extension of the 2 pattern take a look at technique. At first level, the information changed into handled to decide the way and trendy deviations. Afterwards, Four Way Analysis of Variance changed into applied, and in the end Duncan

Multiple Range Test changed into used for figuring out the importance of intergroup imply differences.

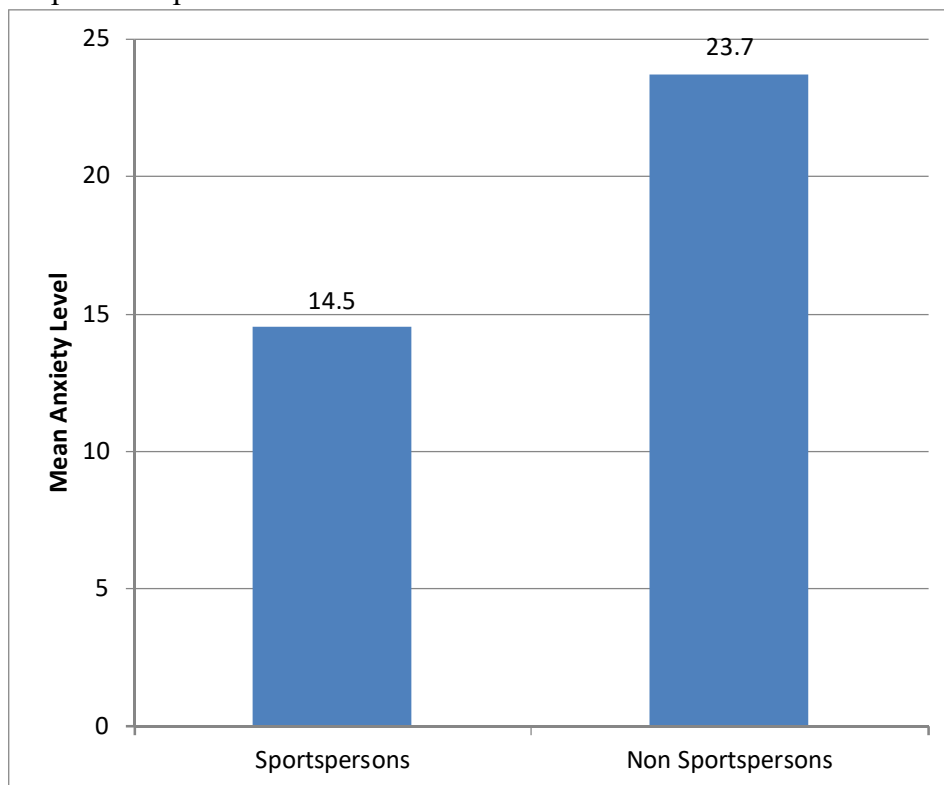
Anxiety

Table 1: Comparative analysis of anxiety levels of sportsperson and non-sportsperson

	Mean	SD	SE	Min	Max	MD	'Z'	P
Sportsperson	14.5	±2.6	0.86	8.2	19.7	-9.213	-5.321	<0.05
Non Sportsperson	23.7	±3.2	1.14	11.6	32.4			

Table 1 shows comparative assessment of anxiety levels of sportsperson and non-sportsperson selected in the study. It was apparent from the analysis of data that average anxiety level of sportsperson was 14.5 ± 2.6 (varied between 8.2 and 19.7). Furthermore the average anxiety level of non-sportsperson was 23.7 ± 3.2 (varied between 11.6 and 32.4). The comparative analysis of collected data indicated that there is significant ($P < 0.05$) difference in anxiety levels of sportsperson and non-sportsperson selected in the study, particularly anxiety level of non-sportsperson is considerably higher than the anxiety level of sportsperson.

Graphical Representation



Conclusion

In this chapter of the thesis, the precis of the studies paintings is supplied and the conclusions primarily based totally at the consequences acquired from the amassed facts are supplied hereunder. Following conclusions are drawn on the idea of examine consequences- Anxiety Levels among Sportspersons and Non-sportspersons.

- Anxiety - Sportspersons and Non-sportspersons: The examine consequences confirmed that there has been significant ($P < 0.05$) distinction withinside the tension ranges of sportspersons and non-sportspersons, specifically, the non-sportspersons confirmed better tension degree in preferred settings.

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The Educational Thoughts of Michael Madhusudan Dutt: Role and Influence

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Abstract: Michael Madhusudan Dutt, a prominent figure in Bengali literature, was not only known for his poetic genius but also for his significant contributions to educational thought during the 19th century Bengal Renaissance. This abstract explores the role and influence of Dutt's educational thoughts. Dutt believed that education should not only focus on academic knowledge but also on moral and ethical development. He emphasized the importance of instilling values such as integrity, compassion, and social responsibility in students. Dutt's educational philosophy was deeply influenced by his exposure to Western ideas, particularly those of the English Romantic poets and philosophers. One of Dutt's key contributions to educational thought was his advocacy for the use of vernacular languages in education. He believed that education should be accessible to all, regardless of their socio-economic background or linguistic proficiency. By promoting the use of Bengali in schools and colleges, Dutt played a crucial role in democratizing education and empowering the masses. Dutt emphasized the need for a holistic approach to education that incorporates both intellectual and physical development. He supported the inclusion of sports, arts, and extracurricular activities in the curriculum to ensure the overall well-being of students. Dutt's educational thoughts had a profound influence on his contemporaries and subsequent generations of educators in Bengal. His emphasis on moral education and the use of vernacular languages laid the foundation for the development of modern education in Bengal. Many of his ideas were later incorporated into the educational policies of the British colonial government and post-independence India. Michael Madhusudan Dutt's educational thoughts were characterized by his commitment to moral development, the use of vernacular languages, and a holistic approach to education. His ideas continue to resonate in the field of education, serving as a source of inspiration for educators striving to create inclusive and socially responsible learning environments.

Keywords: Educational thoughts, Role, Influence, Contributions, Impact.

Introduction: Michael Madhusudan Dutt, a prominent figure in Indian literature, was a Bengali poet, playwright, and essayist who lived during the 19th century. Born on January 25, 1824, in Sagardari, Jessore (now in Bangladesh), Dutt played a crucial role in the Bengali literary renaissance and is often regarded as one of the pioneers of modern Bengali literature. His works, characterized by their innovation, experimentation, and social commentary, have left an indelible mark on Indian literature. Dutt's significance lies not only in his literary contributions but also in his pioneering role in introducing Western literary forms and themes to Bengali literature. He was among the first Indian writers to embrace English as a medium of creative expression, thus bridging the gap between Eastern and Western literary traditions. His mastery of both Bengali and English languages allowed him to create a unique blend of Eastern and Western literary sensibilities in his works. One of Dutt's most notable achievements was his adaptation of Greek mythology and Western literary forms into Bengali literature. His epic poem "Meghnad Badh Kavya" (The Slaying of Meghnad), written in 1861, is a testament to his innovative approach to storytelling and his ability to infuse Indian themes with Western narrative techniques. Additionally, his play "Ekei Ki Bole Sabei" (What They Say, There), written in 1859, challenged traditional norms and highlighted social issues prevalent in Indian society. Dutt's influence extended beyond the realm of literature to education and social reform. As a proponent of Western education, he emphasized the importance of modern education in liberating Indian society from social and cultural stagnation. Through his essays and public speeches, Dutt advocated for the adoption of English education as a means of empowerment for Indians, arguing

that it would enable them to engage with the modern world and challenge colonial dominance. Michael Madhusudan Dutt's significance in Indian literature cannot be overstated. His pioneering spirit, innovative literary works, and advocacy for education continue to inspire generations of writers and intellectuals in India. Dutt's legacy serves as a reminder of the power of literature to transcend boundaries and provoke social change.

Background:

Michael Madhusudan Dutt was a prominent Bengali poet, playwright, and essayist who lived from 1824 to 1873. Here's a brief overview:

Early Life and Education: Born in Jessore, Bengal (now in Bangladesh), Dutt was exposed to English literature and Western education at an early age. He studied at Hindu College in Kolkata (then Calcutta) and later went to England for further studies at University College London.

Literary Works: Dutt is best known for his epic poem "Meghnad Badh Kabya" (The Slaying of Meghnad), which reimagines the story of the Ramayana from the perspective of the antagonist, Meghnad. He also wrote extensively in both Bengali and English, producing poems, plays, and essays that showcased his deep understanding of both Western and Indian literary traditions.

Contributions to Bengali Literature: Dutt played a crucial role in modernizing Bengali literature by introducing new forms, styles, and themes. He pioneered the use of blank verse in Bengali poetry and experimented with different poetic meters and structures. Additionally, his works addressed social issues, historical events, and philosophical concepts, reflecting the changing socio-cultural landscape of 19th-century Bengal.

Influence: Dutt's educational background and exposure to Western literature deeply influenced his literary style and themes. He challenged traditional norms and conventions, advocating for artistic freedom and innovation. His contributions to Bengali literature laid the foundation for future generations of writers and poets, inspiring them to explore new literary horizons and push the boundaries of creativity.

Educational Thoughts:

Michael Madhusudan Dutt, a prominent Bengali poet and playwright of the 19th century, expressed progressive views on education that reflected the changing socio-cultural landscape of colonial India.

Emphasis on Modern Education: Dutt advocated for modern education, which he believed was essential for the intellectual and cultural advancement of Indian society. He recognized the need to embrace contemporary knowledge and technology to keep pace with global developments.

Importance of English Education: Dutt placed significant emphasis on English education as a means to access global knowledge and facilitate communication with the British colonial rulers. He saw English as a gateway to modern thought and scientific progress, enabling Indians to participate more effectively in the rapidly evolving world.

Critique of Traditional Indian Educational Systems: While appreciating the rich heritage of traditional Indian education, Dutt also critiqued its limitations, particularly its focus on rote memorization and religious texts. He argued for a more pragmatic and inclusive approach that incorporated modern subjects alongside traditional wisdom.

Role and Influence: Dutt's educational thoughts were influential in shaping the discourse on education during his time. His advocacy for modern, English-based education contributed to the spread of Western ideas and institutions in India, laying the foundation for the emergence of a more cosmopolitan and intellectually vibrant society.

Michael Madhusudan Dutt's educational thoughts underscored the need for India to embrace modernity while also preserving its cultural heritage, paving the way for the transformation of the country's educational landscape in the colonial era and beyond.

Role of Education in Social Reform:

Empowerment through Literacy: Michael Madhusudan Dutt believed that education, particularly literacy, was crucial for empowering individuals, especially in colonial India where access to education was limited. He saw literacy as a means for individuals to gain knowledge, critical thinking skills, and the ability to advocate for their rights.

Cultural Renaissance: Dutt viewed education as a catalyst for cultural renaissance. He believed that through education, Indians could rediscover and reclaim their rich cultural heritage, which had been suppressed under colonial rule. Education, according to Dutt, could revive indigenous languages, literature, and traditions, fostering a sense of pride and unity among the Indian populace.

Social Mobility: Dutt recognized the transformative power of education in facilitating social mobility. He argued that education could break the shackles of caste and class barriers by providing equal opportunities for all, regardless of their social background. By promoting meritocracy, education could enable individuals from marginalized communities to rise above their circumstances and contribute meaningfully to society.

Resistance to Colonial Hegemony: Dutt believed that education could serve as a tool for resisting colonial hegemony. By educating the masses about their rights and the injustices perpetuated by colonial rule, Dutt envisioned a populace that was intellectually equipped to challenge oppressive systems and demand autonomy and self-governance.

Promotion of Rationalism and Progressivism: Dutt advocated for an education system that prioritized rationalism, scientific inquiry, and progressive ideals. He believed that by instilling these values in students, education could foster a spirit of innovation, critical thinking, and social responsibility, laying the foundation for a more equitable and enlightened society.

Fostering Social Cohesion: Finally, Dutt emphasized the role of education in fostering social cohesion and national unity. He saw education as a means of transcending regional, linguistic, and religious divides by promoting a shared sense of identity and purpose among Indians. By imparting values of tolerance, inclusivity, and solidarity, education could contribute to the consolidation of a united Indian society capable of confronting colonial oppression and charting its own destiny.

Michael Madhusudan Dutt envisioned education as a multifaceted instrument for social reform in colonial India, encompassing empowerment, cultural revival, social mobility, resistance to colonialism, promotion of rationalism, and fostering social cohesion. He believed that by harnessing the transformative power of education, India could overcome the challenges of colonial rule and emerge as a self-reliant, progressive nation.

Influence and Legacy:

Michael Madhusudan Dutt, a prominent Bengali poet and playwright, made significant contributions to both education and literature in India during the 19th century. His educational thoughts were deeply intertwined with his literary pursuits, and his influence can be observed in several aspects:

Integration of Western and Indian Education: Dutt advocated for the integration of Western and Indian educational principles. He believed that while Western education provided valuable knowledge, it was essential to preserve and promote Indian culture and literature. This perspective influenced subsequent educational reformers who sought to blend the best of both worlds in Indian education.

Literature as a Tool for Social Reform: Dutt's literary works often addressed social issues such as caste discrimination, women's rights, and colonial oppression. Through his poetry and plays, he aimed to raise awareness and provoke societal change. His emphasis on literature as a medium for social reform inspired later writers and thinkers to use their creative output as a means of addressing pressing social concerns.

Promotion of Nationalism: Dutt's writings played a significant role in fostering a sense of nationalism among Indians during the colonial era. His patriotic poems celebrated India's cultural heritage and called for resistance against British rule. His advocacy for national pride and unity influenced subsequent generations of writers who continued to champion the cause of Indian independence.

Influence on Bengali Literature: Dutt's innovative use of language and poetic forms had a lasting impact on Bengali literature. He introduced new literary techniques and themes, breaking away from traditional norms. His experimentation encouraged future generations of Bengali writers to explore new artistic possibilities and push the boundaries of literary expression.

Legacy in Education: While Dutt's direct contributions to educational theory may not have been as extensive as his literary output, his advocacy for a holistic approach to education, combining Western knowledge with Indian cultural values, left a lasting imprint. His belief in the transformative power of education, coupled with his commitment to social reform, continues to inspire educators in India today.

Michael Madhusudan Dutt's educational thoughts and literary endeavors had a profound impact on Indian society, influencing subsequent generations of writers, thinkers, and educators. His advocacy for the integration of Western and Indian education, his use of literature as a tool for social reform, and his promotion of nationalism and cultural pride continue to resonate in modern India.

Conclusion : Michael Madhusudan Dutt, a renowned Bengali poet and playwright of the 19th century, had significant contributions to Indian intellectual discourse, particularly in the realm of education. Dutt's educational thoughts were shaped by his exposure to Western education systems during his time in England, where he witnessed the transformative power of education firsthand. Central to Dutt's educational philosophy was the idea of education as a means of individual and societal upliftment. He believed that education should not only aim at intellectual development but also moral and character formation. Dutt emphasized the importance of

education in fostering critical thinking, creativity, and social responsibility among individuals. One of Dutt's notable contributions was his advocacy for the vernacularization of education. He argued for the use of native languages, such as Bengali, as mediums of instruction, believing that it would facilitate better communication and comprehension among students, especially those from non-elite backgrounds. This emphasis on vernacular education played a crucial role in promoting linguistic diversity and cultural inclusivity in Indian educational discourse. Dutt's insistence on the democratization of education paved the way for the establishment of educational institutions accessible to people from all socio-economic backgrounds. He envisioned education as a tool for social reform, capable of breaking down barriers of caste, class, and gender discrimination. Dutt's educational thoughts continue to hold relevance in contemporary Indian intellectual discourse. His emphasis on holistic education, inclusive pedagogy, and the promotion of indigenous languages echoes in ongoing debates surrounding educational reforms in India. Moreover, his advocacy for social justice and equity in education remains pertinent in addressing persisting disparities in access to quality education across the country. Michael Madhusudan Dutt's educational thoughts have left a lasting impact on Indian intellectual discourse. His ideas continue to inspire educators, policymakers, and scholars to strive for a more equitable, inclusive, and culturally sensitive education system in India.

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भारत में आर्थिक विकास की क्षेत्रीय संरचना की प्रभावशीलता का अध्ययन

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सारांश

उद्यम धन और सेवाओं के निर्माण, वस्तुओं और सेवाओं के प्रावधान और सरकारी शुल्क के माध्यम से राष्ट्रों की वित्तीय नियति को आकार देते हैं। यही कारण है कि व्यापार देश की वित्तीय वृद्धि के साथ घनिष्ठ रूप से जुड़ा हुआ है। उद्यमी अपने विचारों को नवोन्मेषों के माध्यम से वित्तीय अवसर में बदलते हैं जो वैश्विक अर्थव्यवस्था में तेजी से सार्वभौमिकरण प्रतिस्पर्धा के एक प्रमुख स्रोत के रूप में देखा जाता है। हाल के वर्षों में, भारत ने अपेक्षाकृत उच्च विकास किया है, और 2050 तक दुनिया की सबसे बड़ी अर्थव्यवस्था होने की संभावना है। जैसा कि यूनिवर्सल एंटरप्राइज मॉनिटर रिपोर्ट 2002 में कहा गया है, भारत कुल उद्यम गतिविधि में सभी देशों में दूसरे स्थान पर है। 1991 के बाद से, राष्ट्र के उदारीकरण ने बहुत से लोगों के लिए उद्यमी बनने का रास्ता खोल दिया है। भारत जैसे विकासशील देश आंतरिक स्थानीय अर्थव्यवस्थाओं के बजाय सार्वभौमिक अर्थव्यवस्थाओं को बाहरी रूप से देखने की कोशिश कर रहे हैं। यह तभी संभव है जब नए उद्यमियों को बैंकों और वित्तीय संस्थानों द्वारा प्रोत्साहित किया जाए। युवाओं के बीच उद्यम को बैंकों और वित्तीय संस्थानों की मदद से बेहतर और व्यवस्थित रूप से विकसित किया जा सकता है। धन और रोजगार सृजित करके, उत्पादों और सेवाओं की पेशकश करके और सरकारी कर सृजित करके राष्ट्रों के वित्तीय भाग्य को उद्यमियों द्वारा आकार दिया जाता है। यही कारण है कि उद्यमशीलता को देश की वित्तीय वृद्धि से घनिष्ठ रूप से जोड़ा गया है। उद्यमी नवप्रवर्तन के माध्यम से विचारों को वित्तीय अवसरों में बदलते हैं जो विश्व अर्थव्यवस्था में प्रतिस्पर्धात्मकता की कुंजी है जो तेजी से सार्वभौमिक है। हाल के वर्षों में, भारत अपेक्षाकृत उच्च दर से बढ़ा है और 2050 तक दुनिया की सबसे बड़ी वित्तीय प्रणाली होने की संभावना है।

मुख्यशब्द— आर्थिक विकास, क्षेत्रीय संरचना, वित्तीय वृद्धि, देश की वित्तीय वृद्धि

प्रस्तावना

यह अध्ययन आर्थिक विकास की अवधारणा का सामान्य परिचय प्रदान करता है और भारत जैसी तेजी से बढ़ती अर्थव्यवस्था में इसके निर्धारकों के विस्तृत अध्ययन के लिए मामला बनाता है। यद्यपि आर्थिक विकास को एक समय अवधि से दूसरी अवधि में कुल उत्पादकता में वृद्धि के रूप में माना जाता है, आर्थिक सोच के विभिन्न विद्यालयों से जुड़े विभिन्न विकास सिद्धांतों के संदर्भ में विकास का विचार बदल दिया गया है। जब द्वितीय विश्व युद्ध के बाद की अवधि की बात आती है तो पर्याप्त समय-सीमा आर्थिक विकास के निर्धारकों का अध्ययन करने की अनुमति देती है जिससे महत्वपूर्ण सबक प्राप्त किए जा सकते हैं। इस अध्याय के दूसरे भाग में दिया गया सैद्धान्तिक ढाँचा आर्थिक चिंतन के विभिन्न सम्प्रदायों के अर्थशास्त्रियों के योगदान पर प्रकाश डालता है।

आर्थिक विकास की अवधारणा को अपनी मौजूदा आबादी को तेजी से विविध आर्थिक वस्तुओं की आपूर्ति करने की क्षमता में दीर्घकालिक वृद्धि के रूप में परिभाषित किया जा सकता है। बढ़ती क्षमता में यह वृद्धि प्रौद्योगिकी को आगे बढ़ाने और संस्थागत और वैचारिक ढाँचे के संबंध में आवश्यक चिंताओं पर निर्भर करती है। आर्थिक विकास और संबंधित पहलुओं का अध्ययन करने के लिए पिछले कुछ दशकों में कई तरह से

प्रयास किए गए हैं। एक अर्थव्यवस्था के संदर्भ में, विकास एक समयावधि में अधिक वस्तुओं और सेवाओं का उत्पादन करने की क्षमता में वृद्धि को संदर्भित करता है। यह आम तौर पर सकल घरेलू उत्पाद के माध्यम से मापा जाता है और किसी अन्य समय अवधि की तुलना में व्यक्त किया जाता है। विकास का अध्ययन परंपरागत रूप से मध्यम अवधि या लंबी अवधि से जुड़ा हुआ है। साथ ही यह अक्सर भौतिक पूंजी के संचय, कौशल की प्रगति, विचारों और नवाचार, जनसंख्या की वृद्धि आदि जैसे कारकों से जुड़ा होता है। यह देखना भी महत्वपूर्ण है कि उत्पादन प्रक्रिया में विभिन्न कारकों का उपयोग, संयोजन और प्रबंधन कैसे किया जाता है। उत्पादन के विभिन्न कारकों का उपयोग करने की प्रक्रिया में परिवर्तन ज्ञान प्रसार के नए आयामों की खोज के लिए पर्याप्त स्थान प्रदान करते हैं। इससे स्पष्ट रूप से पता चलता है कि आर्थिक विकास इसलिए, मुख्य रूप से, एक अर्थव्यवस्था के आपूर्ति पक्ष से संबंधित है।

भारत अनिवार्य रूप से एक कृषि अर्थव्यवस्था है जिसमें 60: से अधिक भारतीय अपनी आजीविका के लिए कृषि पर निर्भर हैं (भारत सरकार, 2013)। हालाँकि, भारत के कृषि क्षेत्र को अत्यधिक निर्भरता से काफी नुकसान हुआ है। इसलिए, यदि कृषि का विकल्प मिल जाए तो यह समस्या को काफी हद तक आधा कर सकता है। इसके साथ सूक्ष्म, लघु और मध्यम उद्यमों (एमएसएमई) में, न्यूनतम निवेश, कौशल और स्थानीय रूप से उपलब्ध संसाधनों के साथ, कृषि को कम करने के बेहतर और तत्काल तरीके हैं (भारत सरकार, एमएसएमईडी अधिनियम, 2006)। सच्चाई जानने के बाद, भारत की सरकार ने छोटे और मध्यम आकार के व्यवसायों (लघु उद्योग (एसएसआई), जैसा कि वे पहले थे) पर अधिक ध्यान केंद्रित किया है। सकल घरेलू उत्पाद को बढ़ाना और उत्पादक आय बनाना सभी अर्थव्यवस्थाओं (जीओआई, 2008) के समावेशी विकास को प्राप्त करने के लिए प्रारंभिक भूमिकाएं और रणनीतियां हैं। विकास के चरण की परवाह किए बिना, अर्थव्यवस्थाओं ने हमेशा जीडीपी और नौकरियों के पैमाने को बढ़ाने की कोशिश की है। इन प्रयासों से बड़े पैमाने पर उत्पादन पूरी तरह से हुआ। 1990 के दशक में भारत ने ऐसी स्थिति का अनुभव किया था। बड़े पैमाने पर उत्पादन से सकल घरेलू उत्पाद में वृद्धि हो सकती है, लेकिन नौकरियों की उत्पत्ति, जिसे आमतौर पर बेरोजगारी वृद्धि के रूप में जाना जाता है, की गारंटी नहीं दी जा सकती है। भारत में विकास आर्थिक सुधार और रोजगार सृजन स्थिरता दोनों ही समान रूप से महत्वपूर्ण हैं। लेकिन सुधारों और स्थिरता की अवधारणा के बीच विरोधाभास हैं। सुधार आर्थिक विकास को बढ़ावा दे सकते हैं, लेकिन उतार-चढ़ाव की उम्मीद नहीं है। इस बीच स्थिरता आज और आने वाली पीढ़ियों के जीवन की गारंटी देती है। इन कारणों से, भारत सरकार ने आर्थिक विकास के साथ-साथ सतत विकास सुनिश्चित करने के लिए कई रणनीतिक कदम उठाए हैं। ऐसी ही एक रणनीति एसएमई को बढ़ावा देना है, जो आर्थिक विकास और नौकरियों को बढ़ाती है।

कुछ सिद्धांतों से संकेत मिलता है कि वित्तीय विकास छोटे व्यवसाय के विकास को असमान रूप से बढ़ावा देकर आर्थिक विकास को बढ़ावा देता है। यदि, अधिक सूचना अवरोधों और वित्तीय प्रणालियों तक पहुँचने से जुड़ी निश्चित लागतों के कारण, छोटे, कम समृद्ध व्यवसायों को बड़े व्यवसायों की तुलना में सख्त ऋण बाधाओं का सामना करना पड़ता है, और तब वित्तीय विकास जो बाजारों में सुधार करता है, विशेष रूप से छोटी फर्मों (बनर्जी) पर सकारात्मक प्रभाव डालेगा। और न्यूमैन, 1993) एमएसएमई का विकास और प्रसार साहसी व्यवसायियों और पर्याप्त निवेश की मांग करता है। इस तरह के बुनियादी ढांचे के साथ, एमएसएमई भारतीय सामाजिक-आर्थिक प्रणाली को भारी गुणात्मक और मात्रात्मक परिवर्तनों में बदल सकते हैं। भारत एक उद्यमी, युवा और ऊर्जावान लोगों के रूप में अपनी जिम्मेदारियों को पूरा करने में सक्षम है। हालांकि, उनमें से ज्यादातर के पास व्यवसाय शुरू करने के लिए पर्याप्त धन नहीं है। वित्तीय और सरकारी संस्थान इसमें आ सकते हैं और इस समस्या को अधिक व्यापक रूप से हल कर सकते हैं। यह भारत में 1993 और

1994 के बीच हुआ। वित्तीय संस्थानों की मदद से, प्रधान मंत्री रोजगार योजना (पीएमआरवाई) ने भारत सरकार को लघु उद्योग (एसएसआई) बनाने के लिए इस सैद्धांतिक पृष्ठभूमि के साथ लॉन्च किया है।

आर्थिक विकास पर ऐतिहासिक परिप्रेक्ष्य

शास्त्रीय युग से शुरू होने वाले व्यवस्थित आर्थिक विश्लेषण के प्रारंभिक सूत्रीकरण के बाद से, आर्थिक विकास की समस्या में अर्थशास्त्रियों की मुख्य व्यस्तता शामिल है। यह विश्लेषण आर्थिक विकास के चालकों, इसके विभिन्न रूपों और बाद के प्रभावों जैसे पहलुओं पर केंद्रित था। यह उल्लेख करना बहुत महत्वपूर्ण है कि आर्थिक विकास के शास्त्रीय दृष्टिकोण की एक विशेषता उत्पादन के कारकों, अर्थात् भूमि, श्रम और पूंजी की पहचान है, और विकास प्रक्रिया में उनकी परस्पर क्रिया है।

शास्त्रीय अर्थशास्त्रियों एडम स्मिथ, डेविड रिकार्डो और माल्थस के लिए, आर्थिक विकास की प्रक्रिया को समझना केंद्रीय महत्व का था। विकास और ठहराव पर सामान्यीकृत शास्त्रीय सिद्धांत शास्त्रीय तिकड़ी के योगदान का एक संयोजन है। आधुनिक अर्थशास्त्र के जनक एडम स्मिथ ने पूंजी संचय को वह निर्णायक कारक माना जिसके चारों ओर आर्थिक विकास का सिद्धांत घूमता है। इस प्रकार विकास कार्यात्मक रूप से निवेश की दर से संबंधित है। उनके विचार में, आर्थिक विकास की दर उत्पादक श्रम के आकार और श्रम की उत्पादकता से निर्धारित होती है। किसी देश में पूंजी स्टॉक में कोई भी वृद्धि आम तौर पर उत्पादन में आनुपातिक वृद्धि से अधिक होती है। यह मुख्य रूप से श्रम और विशेषज्ञता के लगातार बढ़ते विभाजन के कारण है।

डेविड रिकार्डो ने भी एडम स्मिथ के समान उत्पादन कार्य ग्रहण किया, जिसमें उत्पादन के केवल तीन कारकों, भूमि, श्रम और पूंजी पर विचार किया गया था। हालांकि, उसका उत्पादन कार्य घटती सीमांत उत्पादकता के संचालन के अधीन है। इसका तात्पर्य यह है कि कुल उत्पादन में सीमांत वृद्धि अंततः घट जाती है, जब परिवर्ती आगतों की इकाइयों की संख्या में वृद्धि होती है, जो निश्चित कारकों की दी गई मात्रा के विरुद्ध उपयोग की जाती है। रिकार्डो के सिद्धांत में भी पूंजी संचय एक रणनीतिक भूमिका निभाता है। उनके सिद्धांत में, पूंजी में निश्चित और प्रचल पूंजी दोनों शामिल हैं। अचल पूंजी वही रहती है, लेकिन प्रचल पूंजी जो एक संगठन के निवेश का हिस्सा है, अक्सर उपयोग की जाती है और चल रही गतिविधियों में फिर से भर दी जाती है, निश्चित पूंजी के अनुपात में बढ़ती है।

थॉमस माल्थस का दृष्टिकोण एडम स्मिथ और रिकार्डो से भिन्न था क्योंकि वह अर्थव्यवस्था और जनसंख्या के विकास से संबंधित मुद्दों में अधिक रुचि रखते थे। उनके अनुसार, कोई भी जांच उस जांच से अधिक महत्वपूर्ण नहीं हो सकती है जो किसी देश की क्षमता और वास्तविक विकास के बीच अंतर की पहचान करती है। माल्थस ने भी सोचा था कि श्रम की मांग पूंजी संचय पर निर्भर करती है जहां स्मिथ और रिकार्डो दोनों के विचारों का समर्थन किया जाता है। वह समान रूप से किसी देश की संपत्ति की प्रगति से चिंतित थे। धन की प्रगति से उनका अभिप्राय आर्थिक विकास से था जिसे देश की संपत्ति में वृद्धि करके प्राप्त किया जा सकता था। देश का धन आंशिक रूप से उसके श्रम द्वारा प्राप्त उत्पादन की मात्रा पर और आंशिक रूप से इस उत्पाद के मूल्यांकन पर निर्भर करता है। उनके अनुसार, संभावित सकल राष्ट्रीय उत्पाद का आकार भूमि, श्रम, पूंजी और संगठन पर निर्भर करता है। जब इन चार कारकों को सही अनुपात में नियोजित किया जाता है तो वे अर्थव्यवस्था के दो प्रमुख क्षेत्रों— कृषि और औद्योगिक क्षेत्र में उत्पादन को अधिकतम करेंगे। यह पूंजी का संचय, मिट्टी की उर्वरता और तकनीकी प्रगति है जो कृषि और औद्योगिक उत्पादन दोनों में वृद्धि का कारण बनेगी। इसके अलावा, उन्होंने आर्थिक विकास में गैर-आर्थिक कारकों के महत्व पर भी जोर दिया, जो राजनीति और नैतिकता के अंतर्गत आते हैं। इन सभी कारकों में पूंजी का संचय ही आर्थिक विकास का सबसे महत्वपूर्ण निर्धारक है। लाभ में वृद्धि पूंजी संचय के स्रोत के रूप में कार्य करेगी। हालांकि, यह बताना दिलचस्प है कि माल्थस स्मिथ और रिकार्डो दोनों से अलग था कि बचत

हमेशा निवेश के बराबर होगी और इसलिए, बचत के किसी भी कार्य से स्वचालित रूप से अर्थव्यवस्था की संपत्ति में वृद्धि होगी।

आर्थिक विकास पर आधुनिक परिप्रेक्ष्य

हाल के वर्षों में आर्थिक विकास की समझ अपने आप में काफी बढ़ी है। उदाहरण के लिए, जनसंख्या के विकास, पूंजी संचय की गति, और प्राकृतिक संसाधनों की कमी की विशेषता वाले वातावरण में तकनीकी नवाचार की दर को नियंत्रित करने वाले परस्पर संबंधित कानूनों की बहुत अधिक समझ रही है। समाज में प्रचलित कानूनी ढांचे या सामाजिक सांस्कृतिक पैटर्न में कठोर परिवर्तन लाने के लिए ऐसा परिवर्तन क्रांतिकारी हो सकता है।

आर्थिक विकास और विकास के बीच अंतर करते हुए, मैडिसन (1970) जैसे अर्थशास्त्रियों का मानना है कि आर्थिक विकास विकासशील देशों की समस्याओं को संदर्भित करता है, जबकि आर्थिक विकास शब्द विकसित देशों की समस्याओं को संदर्भित करता है। यानी आम तौर पर आय के स्तर को बढ़ाने को अमीर देशों में आर्थिक विकास कहा जाता है और गरीब देशों में इसे आर्थिक विकास कहा जाता है। हालाँकि, इन दो अवधारणाओं की गलत व्याख्या नहीं की जानी चाहिए क्योंकि उनका अर्थव्यवस्था के प्रकार से कोई लेना-देना नहीं है, लेकिन वे प्रकृति और परिवर्तन के कारणों से संबंधित हैं। जोसेफ शुम्पीटर (1934) ने इस विचार को स्पष्ट किया है। उनके दृष्टिकोण में, विकास स्थिर स्थिति में एक असंतत और सहज परिवर्तन है जो हमेशा के लिए पहले से मौजूद संतुलन स्थिति को बदल देता है और विस्थापित कर देता है, जबकि विकास लंबे समय में एक क्रमिक और स्थिर परिवर्तन है जो कि दर में क्रमिक वृद्धि से होता है। बचत और जनसंख्या। कई अर्थशास्त्रियों ने इस दृष्टिकोण को व्यापक रूप से स्वीकार किया है और इसे विस्तृत किया है। इस प्रकार आर्थिक विकास एक लंबी अवधि में वास्तविक प्रति व्यक्ति आय या उत्पादन में मात्रात्मक निरंतर वृद्धि से संबंधित है। यह आम तौर पर इसके श्रम बल, खपत और पूंजीगत स्टॉक के विस्तार के साथ होगा। एक खुली अर्थव्यवस्था के संदर्भ में, पूंजी की गति और व्यापार की मात्रा जैसे कारक भी महत्वपूर्ण होते हैं। यह ध्यान रखना दिलचस्प है कि कुछ अर्थशास्त्री इन शब्दों को पर्यायवाची के रूप में प्रयोग करते हैं।

यह ध्यान रखना दिलचस्प है कि औपचारिक आर्थिक सिद्धांत में शामिल लोगों के लिए आर्थिक विकास एक लोकप्रिय विषय रहा है, विशेष रूप से 1950 के दशक के मध्य से लेकर 1960 के दशक के अंत तक। हाल ही में उस रुचि के फिर से उभरने को अंतर्जात विकास मॉडल के रूप में देखा जाता है। इसके कई कारकों का पता लगाया जा सकता है जिसमें औद्योगिक संगठन के सूक्ष्म आर्थिक सिद्धांत और द्वितीय विश्व युद्ध के बाद के अनुभव शामिल हैं। औद्योगिक संगठन, आविष्कार और नवाचार, और मानव पूंजी से जुड़े सूक्ष्म आर्थिक सिद्धांतों में प्रगति ने ज्ञान की उन्नति और बाजारों से इसके संबंध की चर्चा को और अधिक सुसंगत बना दिया है। इसके अलावा, यह तेजी से अच्छी तरह से प्रलेखित युद्ध के बाद के अनुभव के पैसठ वर्षों से अधिक हो गया है जिससे कई सबक उत्पन्न हो सकते हैं। इसका तात्पर्य यह है कि विकास दर में तेजी, उतार-चढ़ाव और गिरावट को उजागर करने और व्याख्या करने के लिए समय अवधि काफी लंबी है, यह दिखाने के लिए कि विभिन्न देशों के विकास के अनुभव महत्वपूर्ण पहलुओं में भिन्न हो सकते हैं। समय अवधि प्रश्न पूछने के लिए पर्याप्त है जैसे कि क्या देशों की प्रति व्यक्ति आय का अभिसरण होगा। इस साक्ष्य का मुख्य बिंदु यह तथ्य है कि विभिन्न देशों में विकास दर भिन्न हो सकती है, और वे समय की विस्तारित अवधि के लिए भिन्न हो सकती हैं।

भारतीय संदर्भ में आर्थिक विकास

आर्थिक विकास की प्रक्रिया भारतीय सन्दर्भ में बहुत विशिष्ट है। एक औपनिवेशिक संरचना की पीड़ा से, अर्थव्यवस्था दुनिया की सबसे तेजी से बढ़ती अर्थव्यवस्थाओं में से एक की स्थिति में आ गई है। हालाँकि

संरचनात्मक परिवर्तन और आर्थिक विकास की प्रक्रिया एक ओर बहुत धीमी थी और दूसरी ओर सार्वजनिक व्यय में वृद्धि के रूप में सरकारी खजाने पर अधिक दबाव डाला। आजादी के तुरंत बाद, पंचवर्षीय योजनाओं के दौरान अर्थव्यवस्था में तेजी आने के संकेत मिले। हालाँकि पड़ोसी देशों के खिलाफ युद्धों के कारण खर्च में वृद्धि, मुद्रास्फीति के दबाव, व्यापार घाटे, प्रतिकूल आपूर्ति के झटके आदि सहित विभिन्न कारकों के कारण विकास दर को कम रखा गया था। हालाँकि अर्थव्यवस्था के मजबूत संसाधन आधार ने इसे उच्च स्तर पर जाने दिया। 1980 के दशक के उत्तरार्ध में उत्पादन और संसाधन उपयोग का जब आर्थिक सुधार पेश किए गए थे।

1. स्वतंत्रता—पूर्व अवधि में भारत में आर्थिक विकास

पूर्व—ब्रिटिश काल के दौरान, भारतीय अर्थव्यवस्था में एक ओर अलग—थलग और आत्मनिर्भर गाँवों के विभिन्न स्तर शामिल थे, और दूसरी ओर कस्बों, जो प्रशासन की सीटें थीं। ये शहर तीर्थयात्रा, वाणिज्य और हस्तशिल्प के निर्माण के केंद्र थे। परिवहन और संचार के साधन अत्यधिक पिछड़े हुए थे और बाजार का आकार भी बहुत छोटा था। ब्रिटिश शासन की स्थापना अपने आप में एक धीमी और लंबी प्रक्रिया थी, जो एक सदी से अधिक समय तक चली। हालाँकि ब्रिटिश विजय की शुरुआत 1757 में प्लेसी की लड़ाई के साथ हुई थी, लेकिन यह 1858 तक ही पूरी हुई थी। इस अवधि के दौरान उत्पादन की तकनीकों को बदलने के मामले में इंग्लैंड एक क्रांतिकारी दौर से गुजर रहा था जिसने अंततः उनके विनिर्माण क्षेत्र में क्रांति ला दी। इंग्लैंड में औद्योगिक क्रांति की शुरुआत से बहुत पहले, ईस्ट इंडिया कंपनी ने यूरोप में भारतीय निर्मित वस्तुओं, हस्तशिल्प, वस्त्र और मसालों के निर्यात पर ध्यान केंद्रित किया था। उस समय तक यूरोप के विभिन्न हिस्सों में इन सामानों की काफी मांग थी। लेकिन औद्योगिक क्रांति ने भारत के विदेशी व्यापार के पाठ्यक्रम को उलट दिया। निर्माताओं की उत्पादक क्षमता में भारी विस्तार के परिणामस्वरूप इंग्लैंड में घरेलू उद्योगों के लिए कच्चे माल की मांग में वृद्धि हुई और विदेशी बाजारों पर कब्जा करने की आवश्यकता हुई। इसका अर्थव्यवस्था पर दो अलग—अलग तरीकों से चरणबद्ध प्रभाव पड़ा। एक, भारतीय निर्माताओं को प्रतिबंधित करने और कुचलने के लिए सावधानीपूर्वक नियोजित प्रयास किए गए। दो, कृषि के व्यावसायीकरण के प्रयास किए गए ताकि भारत से कच्चे माल के निर्यात को बढ़ाया जा सके ताकि कच्चे माल की तेजी से बढ़ती मांग को बिना किसी कठिनाई के पूरा किया जा सके।

भारतीय कपड़ा हस्तशिल्प इन विकासों से प्रभावित होने वाला पहला खंड था। परिवहन के साधनों के विकास से हस्तशिल्प के पतन की प्रक्रिया में तेजी आई। यह ध्यान रखना महत्वपूर्ण है कि भारतीय हस्तशिल्प के विनाश के दूरगामी आर्थिक परिणाम हुए। इससे बेरोजगारी के स्तर में भारी वृद्धि हुई। इसके परिणामस्वरूप अनिवार्य बैंक—टू—द—लैंड आंदोलन हुआ। इस संबंध में प्रमुख समस्या यह थी कि अंग्रेजों ने भारतीय हस्तकला की संस्था को बर्बाद कर दिया, लेकिन रोजगार का कोई वैकल्पिक आधार नहीं दिया। बेरोजगार कारीगर और कारीगर कृषि में वापस चले गए जिससे भूमि पर निर्भर जनसंख्या का अनुपात और बढ़ गया। इसने कृषि के क्षेत्र में प्रच्छन्न बेरोजगारी की समस्या को और बढ़ा दिया। यह कुछ अनुमानों से काफी स्पष्ट है जो प्रकट करते हैं कि उन्नीसवीं शताब्दी के मध्य में लगभग 55 प्रतिशत जनसंख्या कृषि पर निर्भर थी; यह 1901 में बढ़कर 68 प्रतिशत और 1931 में 72 प्रतिशत हो गया। यह बहुत स्पष्ट है कि हस्तशिल्प और उद्योगों में संकट ने अंततः भारतीय कृषि को पंगु बना दिया।

स्वतंत्रता—पूर्व अवधि के दौरान, राष्ट्रीय आय खाते तैयार नहीं किए गए थे। हालाँकि उस अवधि के लिए उपलब्ध आय के सीमित स्रोतों में भारतीय अर्थव्यवस्था का पिछड़ापन काफी स्पष्ट है। उदाहरण के लिए, 1967—68 के लिए दादाभाई नौरोजी द्वारा प्रदान किए गए आय अनुमान बताते हैं कि उस वर्ष के लिए मौजूदा कीमतों पर राष्ट्रीय आय 340 करोड़ रुपये थी। चूंकि देश की जनसंख्या लगभग 17 करोड़ थी,

इसलिए प्रति व्यक्ति आय 20 रुपये प्रति वर्ष निकली। एफजे एटकिंसन के अनुमान से पता चलता है कि 1875 में देश की प्रति व्यक्ति आय 24.4 रुपये थी।

2. सुधार-पूर्व अवधि में भारत में आर्थिक विकास

स्वतंत्रता के तुरंत बाद आर्थिक नियोजन की शुरुआत एक सुप्त अवस्था में अर्थव्यवस्था के लिए एक अच्छी शुरुआत थी। खाद्यान्न और दुग्ध उत्पादन के क्षेत्र में क्रांति के साथ मिलकर पंचवर्षीय योजनाओं ने अर्थव्यवस्था को काफी प्रशंसनीय विकास ट्रैक पर ले लिया है। उदाहरण के लिए, भारत में खाद्यान्न का कुल उत्पादन 1950-51 में 50.8 मिलियन टन था जो 1989-90 में बढ़कर 155 मिलियन टन हो गया (आर्थिक सर्वेक्षण, 1992-93)। हालांकि कृषि क्षेत्र ने इस दौरान प्रगति के कुछ लक्षण दिखाए, सामंतवादी संबंधों से संबंधित तत्व भूमि-स्वामित्व संबंधों में काफी स्पष्ट थे। इसके अलावा अपर्याप्त ग्रामीण ऋण और सिंचाई सुविधाओं, खराब बुनियादी ढांचे, इस्तेमाल की जाने वाली पुरानी तकनीकों आदि से संबंधित समस्याओं ने इस क्षेत्र को पिछड़ा रखा। अन्य उन्नत अर्थव्यवस्थाओं के उत्पादकता स्तरों की तुलना में, प्रमुख फसलों की उत्पादकता के संदर्भ में भी गंभीर चिंताएँ थीं, जिन्हें भूमि या श्रम इनपुट की प्रति इकाई उत्पादन के माध्यम से मापा जाता है।

स्वतंत्रता के समय भारत में औद्योगिक विकास काफी हद तक उपभोक्ता वस्तुओं के खंड तक ही सीमित था और औद्योगिक क्षेत्र की संरचना ने एक पिछड़ी अर्थव्यवस्था की विशेषताओं का प्रदर्शन किया। महालनोबिस के मॉडल के आधार पर, जिसने पूंजीगत वस्तुओं और बुनियादी उद्योगों के विकास पर जोर दिया, दूसरी पंचवर्षीय योजना (1956-61) ने तेजी से औद्योगिकरण के कार्यक्रमों को सर्वोच्च प्राथमिकता दी। तदनुसार, लोहा और इस्पात, भारी इंजीनियरिंग और मशीन निर्माण उद्योगों जैसे पूंजीगत सामान उद्योगों में बड़े पैमाने पर निवेश किया गया। परिणामस्वरूप, 1965 तक की पहली तीन पंचवर्षीय योजना अवधियों में औद्योगिक उत्पादन की चक्रवृद्धि वार्षिक वृद्धि दर में एक दृश्य त्वरण था। यह पहली योजना के 5.7 प्रतिशत से बढ़कर दूसरी योजना में 7.2 प्रतिशत हो गया और आगे। तीसरी योजना में 9 प्रतिशत। इसके बाद 1980 तक युद्ध, सूखे की स्थिति, तेल की कीमत के झटके और बुनियादी ढांचे की बाधाओं जैसे कारकों के कारण औद्योगिक मंदी की अवधि रही। 1980 के दशक की अवधि को मोटे तौर पर औद्योगिक सुधार की अवधि के रूप में कहा जा सकता है, जो 1980 के दशक में अवसंरचनात्मक निवेश में पुनरुत्थान और कृषि और सेवा क्षेत्रों के विकास जैसे कारकों द्वारा समर्थित है।

1991 में नई आर्थिक नीति लागू होने तक भारतीय अर्थव्यवस्था सुप्त अवस्था में थी। वास्तव में, अर्थव्यवस्था को कुछ मजबूत उपायों की आवश्यकता थी जो तेज विकास के लिए अनुकूल वातावरण प्रदान कर सके। घरेलू और बाहरी दोनों तरह के कारक थे, जो अर्थव्यवस्था को उच्च विकास मार्जिन की ओर जाने से रोक रहे थे। उदाहरण के लिए, 1969 में पारित एकाधिकार प्रतिबंधात्मक व्यापार व्यवहार (डट्ज) अधिनियम के अस्तित्व ने फर्मों को निर्दिष्ट सीमा से ऊपर अपने पूंजी आधार के आकार का विस्तार करने से रोका। साथ ही सरकार की कठोर लाइसेंसिंग नीति ने औद्योगिक क्षेत्र को बहुत आसानी से अनुमोदन प्राप्त करने से रोक दिया। निर्यात संवर्धन और आयात प्रतिस्थापन नीतियां विदेशी व्यापार के क्षेत्र में विभिन्न टैरिफ और कोटा प्रतिबंध लगाती हैं। साथ ही पूंजी के आवागमन के मार्ग में भी प्रबल बाधाएँ थीं। इसलिए 1991 में संरचनात्मक सुधार और अर्थव्यवस्था के परिणामी पुनर्विन्यास, अधिक विनियमन से लेकर प्रबंधन तक, अर्थव्यवस्था के पारंपरिक पैटर्न में आमूल-चूल परिवर्तन के तत्वों को लाया है।

3. सुधार के बाद की अवधि में भारत में आर्थिक विकास

उदारीकरण, निजीकरण और वैश्वीकरण की पहल पर जोर देने के साथ एक नई रणनीति बनाने के इरादे से 1991 में भारतीय अर्थव्यवस्था में बड़े धमाके के साथ शुरु किए गए आर्थिक सुधार। इसने स्थिरीकरण और संरचनात्मक समायोजन के अंतर्राष्ट्रीय मुद्रा कोष (अंतर्राष्ट्रीय मुद्रा कोष) –विश्व बैंक के नुस्खे का

पालन किया है। ये परिवर्तन वास्तव में भारतीय अर्थव्यवस्था के कामकाज पर दूरगामी प्रभाव लाने में बहुत महत्वपूर्ण थे। महत्वपूर्ण परिवर्तनों में से एक सार्वजनिक क्षेत्र के लिए अब तक आरक्षित क्षेत्रों का उद्घाटन था। सरकार ने घाटे में चल रही सार्वजनिक क्षेत्र की इकाइयों को निजी क्षेत्र को हस्तांतरित करने की प्रक्रिया शुरू की थी। इसके अलावा निजी क्षेत्र को सरकार से लाइसेंस लिए बिना औद्योगिक इकाइयों को स्थापित करने की अनुमति दी गई थी। एक अन्य महत्वपूर्ण नीति परिवर्तन एमआरटीपी कंपनियों और प्रमुख उपक्रमों के संबंध में संपत्ति की सीमा को समाप्त करने का निर्णय था। 1991 में एकाधिकार प्रतिबंधात्मक व्यापार व्यवहार अधिनियम (एमआरटीपी) के उन्मूलन ने फर्मों को अपने पूंजी आधार के आकार का विस्तार करने की अनुमति दी है क्योंकि अधिक लचीलेपन की अनुमति थी। इसके माध्यम से सरकार ने व्यापारिक घरानों को एमआरटीपी आयोग द्वारा निर्धारित सीमा के बिना निवेश करने के लिए मुक्त कर दिया है। प्रत्यक्ष विदेशी निवेश (एफडीआई) की सुविधा के लिए, सरकार ने उच्च प्राथमिकता वाले क्षेत्रों में 51 प्रतिशत तक प्रत्यक्ष विदेशी निवेश के लिए मंजूरी देने का फैसला किया। सरकार 51 प्रतिशत से अधिक इक्विटी वाले प्रस्तावों पर भी विचार कर सकती है, लेकिन ऐसे प्रस्तावों के लिए सरकार की पूर्व मंजूरी की आवश्यकता होगी। इसके अतिरिक्त सरकार ने अधिक निर्यात को प्रोत्साहित करने के लिए अर्थव्यवस्था को अन्य देशों के लिए खोल दिया है। विदेशी पूंजी, प्रौद्योगिकी और अन्य संबद्ध आयातों के आयात को सुविधाजनक बनाने के लिए, आयात शुल्क में कमी और अन्य मात्रात्मक प्रतिबंधों जैसे उपायों का पालन किया गया।

उद्यमिता विकास के लिए वित्त की आवश्यकता

वित्त हर संगठन की जीवनदायिनी है और उद्यमशीलता के विकास का मुख्य पहलू है। व्यापार एक गुणवत्ता की सूचना नहीं है, लेकिन स्थापित किया जाना चाहिए और विकास के लिए पर्याप्त वित्त पोषण की जरूरत है। एमएसएमई के विकास के लिए एक पूर्व शर्त के रूप में प्रतिस्पर्धी शर्तों पर पर्याप्त, समय पर वित्त पोषण तक पहुंच को परिभाषित किया गया है। दूसरी ओर, एमएसएमई वित्तपोषण की पहुंच को देश की प्रमुख चुनौतियों में से एक माना जाता है। क्रेडिट एक्सेस समस्याएं कारकों के संयोजन के कारण होती हैं

- वसूली, दिवालियापन और अनुबंध प्रवर्तन के कानूनी ढांचे में कमजोरियां, न्यायिक प्रणाली में कमियों के साथ संयुक्त, जो मुख्य रूप से ऋण वसूली और दिवालियापन समय और लागत में अंतर-राज्य भिन्नताओं के लिए जिम्मेदार हैं।

- संस्थागत कमजोरियां, जैसे बैंकों में अच्छे क्रेडिट मूल्यांकन और जोखिम प्रबंधन उपकरणों की कमी, जो एमएसएमई के साथ व्यवहार करते समय लेनदेन की लागत में वृद्धि करती हैं।

- विश्वसनीय एमएसएमई क्रेडिट डेटा का अभाव।

- एमएसएमई क्षेत्र में बाजार की विश्वसनीयता का अभाव।

उद्यमिता की सफलता वित्तीय स्रोतों पर निर्भर करती है। विभिन्न वित्तीय संस्थानों के पास वित्त और विकास सहायता जैसे प्रमुख इनपुट होते हैं। भूमि, श्रम, मशीनरी और कच्चे पदार्थों के कुशल उपयोग के लिए विभिन्न संस्थाओं द्वारा वित्तीय सहायता प्रदान की गई। यह केवल पर्याप्त धन और कॉर्पोरेट प्रशासन के माध्यम से वस्तुओं का उत्पादन करने के लिए पर्याप्त रूप से भूमि, कार्य मशीनरी और कच्चे माल को एक साथ ला सकता है। सकल घरेलू उत्पाद और रोजगार के पर्याप्त सृजन में, भारत सरकार और राज्य सरकारों ने स्वतंत्र, स्व-नियोजित बनकर और अपने सकल घरेलू उत्पाद में योगदान देकर उद्यमियों के वित्तीय दायित्वों को पूरा करने के लिए कई संस्थानों की स्थापना की है।

निष्कर्ष

स्वतंत्रता के बाद की अवधि में विकास की गति को पकड़ने से पहले भारतीय अर्थव्यवस्था लंबे समय तक कम विकास दर की चपेट में रही थी। नई आर्थिक नीति के लागू होने से पहले, औसत वार्षिक वृद्धि दर 3

प्रतिशत से कम पर मंडरा रही थी। उद्योग और सेवा क्षेत्र की तुलना में कृषि और संबद्ध गतिविधियों का अनुपात सबसे अधिक रहा है। फिर भी, बाहरी दुनिया के लिए अर्थव्यवस्था के खुलने से वास्तविक उत्पादन में दीर्घकालीन वृद्धि के संदर्भ में व्यापक आर्थिक चर के व्यवहार में जबरदस्त बदलाव आया है। इसके अलावा, यह स्पष्ट रूप से अन्य क्षेत्रों की तुलना में सेवा क्षेत्र के तेज विकास को चिह्नित करता है। यह सकल घरेलू उत्पाद में विभिन्न क्षेत्रों के सापेक्ष योगदान के संदर्भ में संरचनात्मक परिवर्तनों में परिलक्षित हुआ है। नई आर्थिक नीति ने नए विकास दर्शन और अभ्यास के दायरे में कई कारकों – संस्थागत और साथ ही तकनीकी – को एक साथ लाया है। इन कारकों ने भारत में आर्थिक विकास के स्तरों को प्रभावित करने में महत्वपूर्ण भूमिका निभाई है। यह अध्ययन आर्थिक विकास को निर्धारित करने वाले महत्वपूर्ण कारकों की पहचान करके और उन्हें शामिल करके इन अंतरालों को भरने की कोशिश करता है। इसके अलावा, हाल के दिनों में, नए चर हैं, उदाहरण के लिए मानव पूंजी निर्माण, जिनकी प्रासंगिकता सैद्धांतिक रूप से अच्छी तरह से स्थापित है, और जो अर्थव्यवस्था के विकास को आगे बढ़ाने में अभिन्न साबित हुई हैं।

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A Study on Agriculture Development in Vidharbha

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Abstract:-

An important factor in the development of every country is the agricultural more industry, agricultural business is considered the backbone of the country more than 50% of the total population of India is directly dependent an agriculture even today everyone's life depends on agriculture. This is because the food requirement of human being is met only through agricultural products. The geographical location of Vidarbha is very conducive to agriculture Rivers, Streams, lakes, dams are available but despite all this agriculture here has not developed as much as it should there are many reasons behind this, The people's representatives here have not paid much attention to it. Many large projects are still awaiting completion for eg, The Indira Sagar (Gose Khurd) project which has the potential to cover half of Vidarbha, has not yet been completed. From this, we can think of the attitude of the politicians here. If the farmers here adopt modern farming using new technology, there is no doubt that the Farmers here will definitely 80 beyond the farmers of Western Maharashtra.

★Keywords:-

Agriculture. Development, Human life needs public responsibilities, farmers.

★Introduction:-

India is an Agricultural country. At present. More than 50% of the Country's population is engaged in agriculture and Farm labour. This means that more than 50% of the total population is still dependent on agriculture. This agribusiness, which is supported by such a large number of people is lagging behind in terms of development as compared to other occupations. Even today, the agricultural business is the livelihood of such a large population, but it does not seem to have much attention.

Maharashtra is an advanced state in India the development is flowing in all areas. There is no doubt that the agricultural sector is in progress but considering the development of agribusiness, it smells of regional inequality in Maharashtra, agribusiness is developing in one region, while injustice is being done to agribusiness in another region. The facilities available to the Farmers of Western Maharashtra are not available to Marathwada or Vidarbha and the farmers here are still deprived of a development.

Vidarbha is a region rich in natural resources of Maharashtra. The revenue from mineral resources from this region is more than the revenue from other regions of Maharashtra. However, the funds required for the development of agribusiness here are not available, so the agribusiness in Vidarbha does not appear to have developed much.

★**Supplementary status to agricultural development in Vidarbha :-**

- 1) Hot and dry climate
- 2) The rainfall is very good
- 3) The huge numbers of lakes
- 4) There are big dams
- 5) There is plain land
- 6) There is black soil

★**Reasons For lack of agricultural development** :-

- 1) The indifference of the people representatives
- 2) Dam Work has been stalled for many years
- 3) There is no awareness among the people about modern agriculture
- 4) Regional imbalance
- 5) Territorial heterogeneity
- 6) Although the state gets a lot of revenue from Vidarbha it does not get much funding for agricultural development.
- 7) A small holder farmer, Modern Technology is not affordable and its use is not much.
- 8) Dam water is supplied to industries more than to agriculture

★**Conclusion** :-

Despite the availability of everything necessary for agricultural development, the agricultural business in Vidarbha is far from the development due to regional imbalances, regional inequality, neglect of people's representatives. If the people's representatives pay attention to this and even if the agribusiness alone starts moving towards progress, then the unemployment in Vidarbha alone is capable of eliminating a large number of agribusiness.

Therefore, it is necessary for the government to pay attention to the agribusiness of Vidarbha, at the same time to create awareness among the people about modern technology and make them to do agribusiness accordingly.

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Agricultural Economics in India: Analyzing the Current Challenges and Opportunities

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Abstract: Agriculture remains the backbone of India's economy, employing a significant portion of the population. This paper delves into the current scenario of agricultural economics in India, focusing on its challenges, policies, and emerging trends. It discusses key issues such as low productivity, climate change, supply chain disruptions, and the role of technology in transforming the sector. Additionally, the paper explores the impact of government schemes and reforms, the significance of the agricultural market structure, and the transition toward sustainable farming practices.

Keywords: Agricultural economics, India, climate change, farm policies, rural development, technology, sustainable farming

Introduction:

India's agricultural sector plays a vital role in ensuring food security and contributes significantly to the country's GDP. However, the sector is characterized by low productivity, fragmented landholdings, inadequate infrastructure, and vulnerability to climate change. This paper examines the current state of agricultural economics in India, identifying the major challenges and assessing policy interventions aimed at revitalizing the sector.

2. Overview of Indian Agriculture: Current Economic Context

India is one of the largest agricultural producers globally, yet the sector's economic contribution is declining relative to services and manufacturing. Despite accounting for about 18% of India's GDP, agriculture employs nearly 50% of the workforce. This disparity reflects low productivity, which is further aggravated by several systemic issues.

1. **Land Fragmentation:** Small and fragmented landholdings remain a significant barrier to achieving economies of scale. As per the 2015-16 Agriculture Census, 86% of farmers in India are small and marginal, holding less than two hectares of land.

2. **Low Productivity:** Productivity in Indian agriculture is much lower compared to global averages due to limited access to quality inputs, credit, and modern farming techniques.

3. **Climate Vulnerability:** Indian agriculture is highly dependent on the monsoon, making it vulnerable to erratic weather patterns and climate change. Droughts, floods, and unseasonal rains continue to disrupt agricultural output.

3. Government Policies and Reforms

The Indian government has implemented several policies and schemes aimed at improving agricultural productivity, ensuring price stability, and supporting farmers' incomes.

1. **Pradhan Mantri Kisan Samman Nidhi (PM-KISAN):** This direct income support scheme provides small and marginal farmers with financial assistance of ₹6,000 annually, helping them manage input costs and household needs.

2. **PM-AASHA Scheme:** The Pradhan Mantri Anna data Aay San Rakshan Abhiyan aims to ensure remunerative prices for crops by guaranteeing Minimum Support Prices (MSPs), improving procurement mechanisms, and promoting market reforms.

3. **Agricultural Market Reforms:** The introduction of the e-NAM (National Agriculture Market) platform seeks to integrate agricultural markets nationwide, offering farmers better price discovery and reducing middlemen's influence.

4. **Subsidies and Credit Facilities:** Subsidies on fertilizers, electricity, and irrigation, alongside easier access to agricultural credit, are crucial components of the government's support framework.

4. Agricultural Markets and Supply Chain Challenges

The agricultural market structure in India faces significant inefficiencies due to inadequate infrastructure, poor logistics, and the dominance of intermediaries.

1. **Supply Chain Disruptions:** The COVID-19 pandemic exposed the vulnerability of agricultural supply chains, leading to significant losses for farmers. The lack of cold storage facilities and proper transportation networks adds to these challenges.

2. **Agricultural Produce Market Committees (APMCs):** The APMC system, intended to protect farmers' interests, often ends up restricting free market access and allows intermediaries to exploit both farmers and consumers.

3. **Emerging Models:** Contract farming and Farmer Producer Organizations (FPOs) are gaining prominence as alternative models that can enhance market access, reduce transaction costs, and improve price realization for farmers.

5. Technology and Innovation in Indian Agriculture

Technology is a key enabler in transforming Indian agriculture by enhancing productivity, efficiency, and sustainability.

1. **Precision Farming:** The adoption of precision farming technologies, including GPS-enabled devices, drones, and data analytics, is helping farmers optimize resource use and improve crop yields.
2. **Digital Platforms and Agri-tech Startups:** Digital platforms like Kisan Suvidha, AgriBazaar, and startups such as De Haat and Crop In are providing end-to-end solutions, including market linkages, input advisory, and real-time weather updates.
3. **Irrigation and Water Management:** Micro-irrigation systems like drip and sprinkler irrigation are being promoted to address water scarcity issues and enhance crop productivity.

6. Sustainable Agriculture and Climate Resilience

With growing concerns over environmental degradation, there is an increasing shift toward sustainable and climate-resilient agricultural practices.

1. **Organic Farming and Natural Farming:** The government is promoting organic farming through schemes like Paramparagat Krishi Vikas Yojana (PKVY). The adoption of natural farming methods like Zero Budget Natural Farming (ZBNF) is also gaining traction.
2. **Agroforestry and Integrated Farming Systems:** Integrating tree crops with traditional farming and promoting mixed farming systems are helping farmers diversify income sources and improve soil health.
3. **Climate-Smart Agriculture:** Programs focused on climate-smart agriculture, such as the National Mission for Sustainable Agriculture (NMSA), aim to mitigate the adverse effects of climate change while promoting efficient resource use.

7. The Future of Agricultural Economics in India

India's agricultural sector is at a crossroads, with significant opportunities and challenges ahead. The shift toward digitization, market liberalization, and sustainable farming practices are expected to shape the future of agriculture in India.

1. Policy Focus on Smallholder Farmers: Policies targeting smallholder farmers, improving access to markets, technology, and credit, are essential for driving inclusive agricultural growth.
2. Global Trade and Export Opportunities: Enhancing the export potential of Indian agricultural products by improving quality standards and value addition is crucial for the sector's growth.
3. Sustainable Intensification: The focus should be on sustainable intensification—achieving higher productivity with minimal environmental impact—ensuring long-term food security and environmental sustainability.

Conclusion:

in this research paper Agricultural economics in India is evolving amid significant challenges, including climate change, market inefficiencies, and socio-economic disparities. While government policies and technological advancements are driving positive changes, the future lies in creating an enabling environment for sustainable, inclusive, and market-driven agricultural growth. For India to achieve its goals of doubling farmers' income and ensuring food security, a balanced approach combining economic efficiency, environmental sustainability, and social equity is essential.

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শ্রীমদ্ভগবদ্গীতার ভাবনায় প্রকৃতি ও পুরুষ

ড. সুদীপ্তা হালদার মাইতি

সহকারী অধ্যাপিকা, সংস্কৃত বিভাগ, শহীদ নুরুল ইসলাম মহাবিদ্যালয়

গীতা হল পৃথিবীর অন্যতম শ্রেষ্ঠ ধর্মগ্রন্থ। গীতা মূলতঃ শ্রীকৃষ্ণের মুখনিঃসৃত বাণী। উপনিষদ, গীতা ও বেদান্তদর্শন-এই তিন শাস্ত্রকে 'প্রস্থানত্রয়ী' বলা হয়। গীতাতে শ্রীভগবান সনাতনধর্মের বিভিন্ন অঙ্গসমূহের একত্র সমাবেশ করে সমগ্র স্বরূপকে দর্শন করেছেন। তবে গীতা কেবলমাত্র সনাতন ধর্মেরই উপদেশ প্রদান করে না, গীতা বৈদিক কর্মবাদ, সাংখ্যের প্রকৃতিবাদ, উপনিষদের ব্রহ্মবাদ, যোগানুশাসন, প্রতীকোপাসনা প্রভৃতি আলোচনা করেছে। সুতরাং গীতা হল স্বয়ম্ভূ, সর্বতঃ প্রসারী, স্বতঃপূর্ণ। গীতা হল মানব ধর্মগ্রন্থ। গীতাতে জগতের সৃষ্টি, ক্রম, জ্ঞান, ধ্যান, ভক্তির সমন্বয় ব্যাখ্যাত হয়েছে।

শ্রীমদ্ভগবদ্গীতায় ত্রিগুণাত্মিকা প্রভৃতি সত্ত্ব, রজঃ, তমঃ এই তিনটি গুণের বৈচিত্র্যে জগতের বৈচিত্র্য, বৈষম্য প্রভৃতি বিস্তৃতরূপে ও বিশ্লেষণাত্মক দৃষ্টিভঙ্গিতে ব্যাখ্যাত হয়েছে। সমগ্র জড়প্রপঞ্চের যেটি অমূল মূলতত্ত্ব, তাই হল প্রকৃতি। তাই সাংখ্যসূত্রে বলা হয়েছে- 'মূলে মূলাভাবাদমূলং মূলম্।'" জগতের যা মূল উপাদান তার নামই হল প্রকৃতি। এটি অনাদি, অন্তহীন, নিত্য, অসীম, অতিসূক্ষ্ম, অলিঙ্গ ও নির্বিশেষ। প্রকৃতির নামান্তর হল প্রধান, অব্যক্ত, ত্রৈগুণ্য ইত্যাদি। এই অব্যক্তের পরিণামই ব্যক্ত জগৎ। তাই গীতায় বলা হয়েছে-

অব্যক্তাদীনি ভূতানি ব্যক্তমধ্যানি ভারত।

অব্যক্তনিধনান্যেব তত্র কা পরিদেবনা।।২।।

সত্ত্ব, রজঃ, তমঃ এই তিন গুণের সাম্যবস্থাই এই অব্যক্ত অবস্থা তাই প্রকৃতির অপর নাম হল ত্রৈগুণ্য। এই তিনগুণের স্বভাব পরস্পর বিরোধী। গীতার চতুর্দশ অধ্যায়ে এই তিনটি গুণের বৈশিষ্ট্যস্বরূপ বলা হয়েছে।

তত্র সত্ত্বং নির্মলত্বাৎ প্রকাশকমনাময়ম্।

সুখসঙ্গেন বন্বাতি জ্ঞানসঙ্গেন চানঘ।।

রজো রাগাত্মকং বিদ্ধি তৃষ্ণাসঙ্গসমুদ্ভবম্।

তন্নিবন্বাতি কৌন্তেয় কর্মসঙ্গেন দেহিনম্।

তমত্ত্বজ্ঞানজং বিদ্ধি মোহনং সর্বদেহিনাম্।

প্রমাদালস্যনিদ্রাভিস্তন্নিবন্বাতি ভারত।।৩।।

অতএব, সত্ত্বের স্বভাব প্রকাশ বা জ্ঞান, তমঃ গুণের স্বভাব হল অপ্রকাশ বা মোহ এবং রজের প্রকৃতি হল কর্মপ্রবণতা। অতএব, জড়বিজ্ঞানের ভাষায় বলা যায় যে, রজঃগুণের স্বভাব হল গতি বা বল অর্থাৎ energy, Activity তমঃগুণের স্বভাব হল বাধা প্রদান করা অর্থাৎ resistance সত্ত্বঃগুণ হল উভয়ের সামঞ্জস্যকারক অর্থাৎ harmony.

প্রলয়কালে এই তিনটি গুণ সাম্যাবস্থায় থাকে অর্থাৎ তুল্যবলে তৃষ্ণীভাবে যা অবস্থান করে তাই হল অব্যক্তবস্থা। সৃষ্টিকালে গুণত্রয়ের সাম্যভঙ্গ হয় এবং বিসদৃশ পরিণামাত্মক সৃষ্টি আরম্ভ হয়। কোন সময়ে সত্ত্ব প্রবল হয়ে প্রকাশ, জ্ঞান, সুখ এই সকল উৎপন্ন করে, কোন সময়ে রজঃগুণের প্রাবল্যে চঞ্চলতা, প্রবৃত্তি, দুঃখ এই সকল আনয়ন করে, কোথাও তম-গুণের প্রাবল্যে মোহ, অজ্ঞান বা জড়তা উৎপাদন করে। জগতের সকল পদার্থ এই তিনটি গুণের ন্যূনাধিক্যে সৃষ্ট। তিনটি গুণ ব্যতীত পদার্থ নেই। তাই গীতার অষ্টাদশ অধ্যায়ে বলা হয়েছে।

ন তদন্তি পৃথিব্যাং বা দিবি দেবেষু বা পুনঃ।

সত্ত্বং প্রকৃতিজৈর্মুক্তং যদেভিঃ স্যাৎ ত্রিভিগুণৈঃ।।৪।।

নির্জীব পদার্থে তমোগুণ দ্বারা সত্ত্ব সম্পূর্ণ আবৃত থাকে। সুতরাং, তারা অচেতন, অচঞ্চল। কিন্তু তাদের অভ্যন্তরে রজোগুণের ক্রিয়াও চলতে থাকে। বৃক্ষলতাাদিতে তমোগুণের প্রাধান্য রজঃ, সত্ত্বগুণ তাতে পরিস্ফুট তাদেরও অনুভূতি ও

চেতনা আছে। ইতর জন্তুতেও তিনটি গুণই পরিস্ফুট। কিন্তু তমঃ ও রজোগুণের আধিক্যে সত্ত্বগুণ অভিভূত থাকে। তবে মনুষ্যে তিনটি গুণই স্পষ্টরূপে পরিস্ফুট হলেও বুদ্ধি, বিবেক, বিচারশক্তি প্রভৃতি সত্ত্বগুণের লক্ষণ সকলের মধ্যে সমান থাকে না। শাস্ত্রে গুণ ভেদানুসারে কর্মভেদ ও উপাসনা প্রণালীর থাকে না। শাস্ত্রে গুণভেদানুসারে কর্মভেদ ও উপাসনা প্রণালীর ভেদ নির্দিষ্ট হয়েছে। সকল সাধনার উদ্দেশ্য হল তমঃ ও রজঃগুণ অর্থাৎ অজ্ঞান ও কাম ক্রোধাদিকে দমন করে সত্ত্বগুণের উৎকর্ষ সাধন করা এবং পরিণামে সত্ত্বগুণকে অতিক্রম করে ত্রিগুণাতীত হওয়া।

সৃষ্টির প্রারম্ভে প্রকৃতির সাম্যভঙ্গ হলে তার প্রথম যে পরিণাম হয়, তার নাম মহত্ত্ব। মহত্ত্বের পরিণাম অহঙ্কার। প্রকৃতির পরিণামে মহত্ত্ব বা বুদ্ধিতত্ত্ব উৎপন্ন হলেও তা একবস্তুরই থাকে। যে গুণের প্রভাবে একবস্তুরতার নাশ হয়ে বহুবস্তুরই থাকে। যে গুণের প্রভাবে একবস্তুরতার নাশ হয়ে বহুবস্তুরতা উৎপন্ন হয়, তাই হল অহঙ্কার। অহঙ্কারের অর্থ হল আমি পৃথক, তুমি পৃথক, এইরূপ ভাব। অন্যের থেকে পৃথক থাকার অভিমানকে অহঙ্কার বলে। মনুষ্যে প্রকটীভূত অহঙ্কার এবং যে অহঙ্কার প্রযুক্ত বিবিধ মূল পরমাণু একবস্তুর প্রকৃতি থেকে নির্মিত হয়, তাদের জাতি একই। সাত্ত্বিক, রাজসিক ও তামসিক গুণভেদে অহঙ্কারের ভেদ দৃষ্ট হয়। অহঙ্কার আপন শক্তি দ্বারা ভিন্ন ভিন্ন পদার্থ উৎপন্ন করতে আরম্ভ করলে তার বুদ্ধিও দুটি শাখায় বিভক্ত হয়ে সেন্দ্রিয় ও নিরিন্দ্রিয় পদার্থের সৃষ্টি করে। সত্ত্বগুণের উৎকর্ষের দ্বারা পঞ্চ কর্মেন্দ্রিয় অর্থাৎ হস্ত, পদ, বাক, পায়ু, উপস্থ, পঞ্চ জ্ঞানেন্দ্রিয় অর্থাৎ চক্ষু, কর্ণ, নাসিকা, জিহ্বা, ত্বক্ এবং উভয়েন্দ্রিয় মন এই একাদশ ইন্দ্রিয় সৃষ্টি হয়। অন্যদিকে, তমোগুণের উৎকর্ষ হেতু পঞ্চতন্মাত্র বা শব্দতন্মাত্র, স্পর্শতন্মাত্র, রূপতন্মাত্র, রসতন্মাত্র ও গন্ধতন্মাত্র এই পঞ্চসূক্ষ্মভূতের উৎপন্ন হয়। এই পঞ্চতন্মাত্র থেকে পঞ্চীকরণে আকাশ, বায়ু, অগ্নি, অপ্ ও পৃথিবী এই পঞ্চভূত সৃষ্টি হয়। এই স্থূলভূতের পরিণামে স্থাবর জঙ্গমাঙ্ক জগৎ সৃষ্টি হয়। স্থূলভূতের যা সার যা সূক্ষ্মাবস্থা তাই হল তন্মাত্র। আকাশকে সূক্ষ্ম অবস্থায় পরিণত করে থাকে শব্দ। অতএব শব্দ হল আকাশের তন্মাত্র। সত্ত্বগুণ হল প্রকাশাত্মক, তাই সত্ত্বগুণের উৎকর্ষে ইন্দ্রিয়াদির সৃষ্টি, তমোগুণ আবরণাত্মক, তদ্ব্যতীত তমোগুণের উৎকর্ষে স্থূলভূতের সৃষ্টি। ইন্দ্রিয় পদের দ্বারা সূক্ষ্ম ইন্দ্রিয়ের শক্তি বুঝতে হবে।

গীতায় জড়াঙ্কিকা প্রকৃতিকে অপরা প্রকৃতি এবং চেতন পুরুষকে পরা প্রকৃতি বলা হয়েছে। প্রকৃতি জড়াঙ্কিকা হওয়ার কারণ হল প্রকৃতপক্ষে জগৎ কেবল জড়াঙ্কিকই নয় সৃষ্টিতে জড় ও চেতন উভয়ই সংসৃষ্ট। গীতায় জড়াঙ্কিকা প্রকৃতিকে অপরা প্রকৃতি এবং চেতন পুরুষকে পরা প্রকৃতি বলা হয়েছে। গীতার সপ্তম অধ্যায়ে তাই বলা হয়েছে

অপরেয়মিতত্ত্বগ্যাং প্রকৃতিং বিদ্ধি মে পরাম্।

জীবভূতাং মহাবাহো যয়েদং ধার্যতে জগত্।।৫।

সাংখ্য মতে, প্রকৃতি সত্ত্ব, রজঃ ও তমঃ এই গুণত্রয় থেকে পৃথক তত্ত্ব নয়। জগতে যে সকল আন্তর ও বাহ্য পদার্থ আছে তার রজঃ এবং তমঃ এদেরকে আসলে প্রকৃতি বলতে হয়। তাই সাংখ্যসূত্রে বলা হয়েছে ‘সত্ত্বাদীনামতদ্বর্ষত্বং তদ্রূপত্বাত্’^৬ অর্থাৎ সত্ত্বাদি গুণত্রয় প্রকৃতির স্বরূপ তদতিরিক্ত ধর্ম নয়। গুণত্রয় কখনই প্রকৃতির ধর্ম হতে পারে না। তার কারণ হল সাংখ্যমতে প্রকৃতি যেহেতু এক অতএব তিনটি বিরুদ্ধধর্ম তার হতে পারে না। নিত্য ও অনিত্য কোন পক্ষেই সত্ত্ব রজঃ তমো এই গুণত্রয়কে প্রকৃতির ধর্ম বলা চলে না। তাই সাংখ্যসূত্রে বলা হয়েছে ‘সত্ত্বরজস্তমসাং সাম্যাবস্থা প্রকৃতিঃ’^৭ প্রকৃতি ও গুণত্রয়ের মধ্যে এই অভেদ সম্পর্কবিষয়ে মনীষী Maxmüller বলেছেন, সত্ত্ব, রজঃ এবং তমঃ এই তিনটি গুণ প্রকৃতির আগন্তুক ধর্ম মাত্র নয় এরা প্রকৃতিরই স্বরূপ। বিভিন্ন নদী যেমন একসঙ্গে মিলিত হয়ে একটি স্রোতধারা রচনা করে অথচ তাদের নিজেদের বৈশিষ্ট্য কখনও বিলুপ্ত হয় না, বিভিন্ন নদীর ভিন্ন ভিন্ন বর্ণ তখনও পরিলক্ষিত হয়, তেমনই সত্ত্ব, রজঃ, তমো এই গুণত্রয় পরস্পর মিলিত হয়ে প্রকৃতি ধারা রচনা করে এবং তাতে তাদের নিজেদের স্বরূপের কোন পরিবর্তন হয় না। প্রকৃতি ও গুণত্রয়ের মধ্যে বাস্তবিক কোন ভেদ না থাকলে ঔপচারিক ভেদ কল্পনা করেই ‘প্রকৃতেঃ গুণাঃ’ এই জাতীয় প্রয়োগ করা হয়ে থাকে। যেমন গীতায় বলা হয়েছে

প্রকৃতেঃ ক্রিয়ামানানি গুণৈঃ কর্মাগি সর্বশঃ।

অহঙ্কারবিমূঢ়াত্মা কর্তাহমিতি মন্যতে।।৮।

শ্রীমদ্ভগবদগীতায় প্রকৃতি থেকে যে সত্ত্বাদি গুণত্রয়ের উৎপত্তির কথা বলা হয়েছে তা সঠিক। গীতার চূতর্দশ অধ্যায়ে বলা হয়েছে-

সত্ত্বং রজস্তম ইতি গুণাঃ প্রকৃতিসম্ভবাঃ।

নিবল্লাতি মহানাহো দেহে দেহিনমব্যয়ম্।।৯।

কিন্তু তার দ্বারা কারণ ও কার্যের মধ্যে যে জাতীয় ভেদ সে জাতীয় ভেদ প্রকৃতি ও গুণত্রয়ের মধ্যে কল্পনা করার প্রয়োজন নেই। মূলতঃ এই গীতাবাক্যে প্রকৃতিসম্ভবাঃ গুণাঃ এই পদসমূহের দ্বারা কার্যসত্ত্বাদিকে বোঝানো হয়েছে। সুতরাং কার্য সত্ত্বাদিকে বোঝালেও এই গীতাবাক্যটির কোন অনুপপত্তিও হয় না স্বগত বিরোধও হয় না সাংখ্যমতে সত্ত্ব রজঃ এবং তমঃ এই তিনটি গুণ পরস্পর নিত্যসম্বন্ধ এবং এরা গুণপ্রধানভাবে পরস্পর মিলিত হয়েই জগৎ সৃষ্টি করে। অতএব এই জগৎ প্রসবিনী প্রকৃতি ত্রিগুণাত্মিকা বাহ্য ও আন্তর সকল জড় পদার্থ সুখদুঃখমোহাত্মক হওয়ায় মূল কারণ প্রকৃতিকে ত্রিগুণাত্মিকা বলেত হবে। সুখ, দুঃখ, মোহ যথাক্রমে সত্ত্ব, রজঃ এবং তমোগুণেরই ধর্ম। তাছাড়া প্রকৃতিকে ত্রিগুণাত্মিকা অবশ্যই স্বীকার করতে হবে। প্রকৃতিকে কেবলমাত্র রজঃ স্বরূপা বললে রজঃ ক্রিয়াশীল বলে প্রকৃতিও সেক্ষেত্রে দুর্নিবাররূপে কার্য করে চলবে। তাতে শৃঙ্খলা রক্ষণ হতে পারে না সুতরাং কোন নিয়ামক প্রয়োজন। এই জন্যই নিয়ামকরূপে তমঃ ক্রিয়া সম্পাদন করে। আবার, প্রকৃতির মধ্যে যদি কোন প্রকাশক শক্তি না থাকে তবে প্রকৃতি অন্ধশক্তির মত অন্ধভাবে কাজ করে চলে। সেক্ষেত্রে সৃষ্টিক্রমের মধ্যে বিদ্যমান সুনির্দিষ্ট নিয়মটিকে ব্যাখ্যা করা যাবে না। সুতরাং প্রকৃতির মধ্যে ক্রিয়াশীল এবং নিয়ামক দ্রব্যের মত প্রকাশধর্মী একটি দ্রব্য অবশ্যই স্বীকার করতে হবে। এর নাম হল সত্ত্ব। অতএব প্রকৃতি সত্ত্বরজস্তমোগুণাত্মিকা। তাই শ্বেতাশ্বতর উপনিষদে বলা হয়েছে ‘অজামেকাং লোহিতশুক্কৃষ্ণাং ববীঃ প্রজাঃ সৃজমানাং সুপাঃ...’^{১০} প্রকৃতি গুণত্রয়ের সঙ্গে অভিন্ন বলেই গুণের অবিবেকিত্ব, বিষয়ত্ব, সামাণ্যত্ব, অচেতনত্ব এবং প্রসবধর্মিত্বরূপ ধর্মগুলি প্রকৃতিতে স্বীকার করা হয়েছে। তাই সাংখ্যকারিকাতে বলা হয়েছে-

ত্রিগুণমবিবেকি বিষয়ঃ সামান্যমচেতনং প্রসবধর্মি।

ব্যক্তং তথা প্রধানম্, তদ্বিপরীতস্তথা চ পুমান্।।১১।

সাংখ্যমতে, গুণগুলি পরস্পরাশ্রয় এবং পরস্পর মিথুনস্বভাব বলে তারা পরস্পর মিলিত হয়েই ক্রিয়া সম্পাদন করে। অতএব, তারা অবিবেকী, পরস্পর মিলিত হয়ে কাজ করার নাম অবিবেক। আবার, গুণগুলি স্থায়ী সুখদুঃখাদি ধর্ম পুরুষে আরোপিত করে বলে তারাই পুরুষের বিষয়। সব পুরুষের জন্যই গুণত্রয় ভোগ্যপদার্থসমূহ সৃষ্টি করে গুণগুলি অচেতন ও পরিণামধর্মী। সৃষ্টিকালে গুণগুলি বিসদৃশরূপে পরিণত হয়ে চলে। তখন পুরুষার্থতারূপ হেতুর প্রভাবে সত্ত্বাদি গুণত্রয়ের যেকোনো একটি প্রাধান্য লাভ করে এবং অন্য দুটি প্রধান গুণটির অঙ্গীভূত হয়ে তার সহায়তা করে। আবার, প্রলয়কালেও গুণত্রয় সদৃশরূপে পরিণত হতে থাকে অর্থাৎ তখন সত্ত্ব সত্ত্বরূপে, রজঃ রজোরূপে এবং তমঃ তমোরূপে পরিণত হয়। সাংখ্যে এই তিনটি গুণকেই স্বীকার করা হয়েছে। যেহেতু এই তিনটি গুণকে স্বীকার করলে জগদ্বৈচিত্র্যকে ব্যাখ্যা করা যায়, না হলে হবে না। গুণত্রয়ে বিভিন্ন রকমের সন্নিবেশবশতঃ প্রকৃতি থেকে নানা রকমের কার্য উদ্ভূত হয়। তাছাড়া জগতের সমস্ত বিকার পদার্থেই সুখ, দুঃখ ও মোহ অনুভূত হয়। সুখ, দুঃখ, মোহ এরা পরস্পর বিরোধী। সুতরাং এরা কখনই একই আশ্রয়ে থাকতে পারে না। এই জন্যই তিনটি ধর্মী সত্ত্ব, রজঃ ও তমঃ স্বীকরণীয়। সুখরূপ ধর্মের আশ্রয় ধর্মী হল সত্ত্ব, দুঃখরূপ ধর্মের আশ্রয় হল রজঃ এবং মোহরূপ ধর্মের আশ্রয় হল তমঃ। সাংখ্যযোগানুসারে, সত্ত্বাদি গুণত্রয় নিত্য। যোগভাষ্যে তাই স্পষ্টভাবে বলা হয়েছে ‘গুণাস্ত সর্বধর্মানুপাতিণো ন প্রত্যস্তময়ান্তে নোপজায়ন্তে...’^{১২} এই কারণ গুণগুলিই কার্যাকারে রূপান্তর প্রাপ্ত হয় মাত্র। তাদের স্বরূপের কখনই উচ্ছেদ হয় না। এই জন্যই সাংখ্যদর্শনে ত্রিগুণাত্মিকা প্রকৃতির পরিণাম নিত্যতা স্বীকার করা হয়েছে।

সত্ত্বপ্রভৃতিকে কেন গুণ বলা হয়, সে বিষয়ে সাংখ্যদর্শনে যে যুক্তিসমূহ প্রদর্শিত হয়েছে সেগুলি হল যোগসূত্রে বলা হয়েছে ‘সত্ত্বাদিদ্রব্যণি রজ্জাস্তকতগুবদেব গুণা ইত্যুচ্যন্তে।’^{১৩} অর্থাৎ রজ্জু প্রভৃতি নির্মিত হয় যা থেকে সেই তন্ত্রকে যেরূপ গুণ বলা হয় সেইরূপ সত্ত্ব, রজঃ, তমঃ থেকেও জগৎ সৃষ্টি হয় বলে সত্ত্ব প্রভৃতি দ্রব্য হলেও তাদের গুণ বলে অভিহিত করা হয়। তাছাড়া সত্ত্ব, রজঃ, তমঃ দ্রব্য হলেও পরার্থ হওয়ায় এদেরকে গুণ বলা হয়েছে। সত্ত্ব, রজঃ, তমঃ এরা পুরুষের প্রয়োজন নিষ্পাদন করে বলে প্রকৃতি মহৎতত্ত্ব প্রভৃতি প্রতিফলনে পরিণাম প্রাপ্ত হচ্ছে। যেহেতু সত্ত্বাদি গুণত্রয় জড়, কখনো ক্রিয়াশীল হতে পারে

না। তাই এই সকল জড়ের অধিষ্ঠানরূপে আত্মার অস্তিত্ব স্বীকার করতেই হবে। এই পুরুষ বা আত্মা অধিষ্ঠান হওয়ায় এই জড়সমূহের অনন্ত পরিণাম হয়ে থাকে। পুরুষ অধিষ্ঠিত না হলে জড়সমূহের এই রূপ পরিণাম নিয়মিত ভাবে কখনোই হত না।

পুরুষের সম্বন্ধই প্রকৃতির পরিণামের হেতু। প্রকৃতি প্রভৃতির পরিণাম বিদ্যমান। সুতরাং যার সান্নিধ্যবশতঃ এই পরিণাম হয় সেই পুরুষকে অস্বীকার করা যাবে না। সুখদুঃখমোহতমঃ যতো পদার্থ আছে সবই পুরুষের দ্বারা অধিষ্ঠিত দেখা যায়। প্রকৃতি বুদ্ধি বা মহৎ প্রভৃতি সব সুখদুঃখমোহাত্মক এগুলি চেতনের দ্বারা অধিষ্ঠিত এই চেতনই হল পুরুষ বা আত্মা। এই আত্মা হল ত্রৈগুণ্য ভিন্ন। ভোগ্যরূপ হল পুরুষ বা আত্মা। এই আত্মা হল ত্রৈগুণ্য ভিন্ন। ভোগ্যরূপ সুখ-দুঃখকে প্রত্যেক আত্মা অনুভব করে থাকে। সুখ-দুঃখ ভোগ্যবস্তু হওয়ায় তদতিরিক্ত ভোজ্য স্বীকার্য এই ভোজ্যই হল পুরুষ। অপরা প্রকৃতি জড়া, পরা প্রকৃতি চেতন, জীবভূতা। এই চেতন জীবভূতা হলেন সাংখ্যের পুরুষ। শ্রীমদ্ভগবদ্গীতায় তা স্পষ্টরূপে বলা হয়েছে। গীতায় বলা হচ্ছে, পরা প্রকৃতিই হল সাংখ্যের পুরুষ। ইহাই ক্ষেত্রজ্ঞ বা জীবচেতন্য। ভগবান বলছেন-

অপরেয়মিতত্ত্বন্যাং প্রকৃতিং বিদ্ধি মে পরাম্।

জীবভূতাং মহাবাহো যয়েদং ধার্যতে জগৎ।।

এতদযোনী ভূতানি সর্বানীতুহপধারয়।

অহং কৃৎসস্য জগতঃ প্রভবঃ প্রলয়স্তথা।১৪।

অর্থাৎ ভগবান শ্রীকৃষ্ণ ক্ষেত্রজ্ঞরূপে সর্বত্র বিদ্যমান আছেন এবং সকলকে ধরে আছেন। প্রকৃতি জড়িত খণ্ডচেতন্যই হল পরা প্রকৃতি। আধার যেরূপ আধেয়কে ধরে রাখে তদ্রূপ এই অধিষ্ঠানচেতন্য দৃশ্যপ্রপঞ্চকে ধরে আছেন। জীবদেহে প্রাণ যতদিন থাকবে, ততদিন দেহ বিদ্যমান থাকে। নাহলে দেহ বিনষ্ট হয়। যেহেতু এই দেহধারণ বশতঃই জীবচেতন্য। জড়াত্মিকা প্রকৃতির সর্বত্রই চেতন আত্মা বা পরা প্রকৃতি বিদ্যমান

থাকে বলে তার সত্ত্বা আছে। না হলে তার নিজস্ব কোন সত্ত্বা থাকে না। তাই ভগবান শ্রীকৃষ্ণ গীতায় বারংবার বলেছেন- অচেতনা অপরা প্রকৃতি দেহাদিরূপে পরিণাম প্রাপ্ত হয়। চেতনা পরাপ্রকৃতি বা জীবচেতন্য ভোক্তারূপে দেহে প্রবেশ করে দেহাদি ধারণ করে। এই দুই প্রকৃতি শ্রীকৃষ্ণেরই প্রকৃতি। তাঁর থেকেই উৎপন্ন বা তাঁরই বিভাব। সুতরাং তিনিই হলেই জগতের কারণ।

সাংখ্যদর্শনে পঞ্চবিংশতি তত্ত্বের এই রূপ বিভাগ প্রদর্শিত হয়েছে।

১. মূল প্রকৃতি

৭. প্রকৃতি-বিকৃতি- ১. মহত্ত্ব, ২. অহঙ্কার পঞ্চ-তন্মাত্র

এদেরকে প্রকৃতি-বিকৃতি বলার কারণ এই যে এদের প্রত্যেকটি অন্য তত্ত্বের কারণস্বরূপ। এরা প্রকৃতি। কিন্তু নিজে অন্য তত্ত্ব থেকে উদ্ভূত। সুতরাং ওইগুলি হল বিকৃতি পঞ্চতন্মাত্রের প্রকৃতি ইত্যাদি।

১৬. বিকৃতি জ্ঞানেন্দ্রিয়, ৫. কর্মেন্দ্রিয়, ১. মন, ৫ স্থূলভূত।

এই ষোড়শটিকে কেবল বিকার বলা হয়, কারণ এটি থেকে অন্য কোন তত্ত্ব উদ্ভূত হয় না।

অপ্রকৃতি অবিকৃতি পুরুষ

পুরুষ প্রকৃতিও নয়, বিকৃতিও নয়, স্বতন্ত্র, উদাসীন। মোট পঞ্চবিংশতি তত্ত্ব। সুতরাং, মূল প্রকৃতি এবং প্রকৃতি-বিকৃতি নিয়ে অষ্ট প্রকৃতি, ষোড়শ বিকার এবং পুরুষ- এই পঞ্চবিংশতি তত্ত্ব।

শ্রীগীতার অনুসরণে নিম্নের বংশবৃক্ষে সৃষ্টিতত্ত্ব বিবরণ সংক্ষেপে প্রদর্শিত হল-

পরব্রহ্ম বা পুরুষোত্তম

১পুরুষ + ১ প্রকৃতি

পরাপ্রকৃতি অপরা প্রকৃতি

১মহত্ত্ব বা বুদ্ধিতত্ত্ব

ক)অহঙ্কার

ক)১.সত্ত্বগুণের প্রাবল্যে

৫ জ্ঞানেন্দ্রিয়, ৫কর্মেন্দ্রিয়, ১মন

ক)২.তমোগুণের প্রাবল্যে

৫ পঞ্চ তনাত্র

৫ পঞ্চ স্থূলভূত

সাংখ্যদর্শন ও গীতার মত সাদৃশ্য

সুতরাং সাংখ্যদর্শনের ন্যায় গীতাতেও বলা হচ্ছে যে, প্রকৃতি ত্রিগুণাত্মিকা এবং গুণত্রয়সাম্যাবস্থারূপা। সাংখ্যদর্শনে প্রকৃতি এবং সত্ত্ব, রজঃ ও তমঃ এই গুণত্রয়ের মধ্যে অভেদ স্বীকার করা হয়েছে। ‘সত্ত্বং রজস্তুম ইতি গুণাঃ প্রকৃতিসম্বাঃ’ ইত্যাদি গীতাবাক্যে যদিও গুণত্রয়কে প্রকৃতিজাত বলে বর্ণনা করা হয়েছে এবং সেখানে প্রকৃতি ও গুণত্রয়ের মধ্যে ভেদই প্রথমে প্রতীয়মান হয়, তথাপি বুঝতে হবে যে, গীতায় মহৎতত্ত্বের কারণীভূত কার্যসত্ত্বাদির কথাই বলা হয়েছে। সাংখ্যের ন্যায়, গীতার মতেও প্রকৃতি অনাদিন ন এবং জগৎ কারণ। সেখানে বলা হয়েছে, জগতের সমস্ত বিকারাদি সুখদুঃখাদির সাধন ইন্দ্রিয়াদিরূপ কারণাকারে পরিণত হয়। তাছাড়া এই দেহাদিরূপ কার্য এবং ইন্দ্রিয়াদিরূপ কারণের সৃষ্ট ব্যাপারে কত্রী হল প্রকৃতি। যদিও অচেতন বলে প্রকৃতির ক্রিয়া সম্পাদনে কর্তৃত্ব স্বভাবতঃ সম্ভব নয়, তথাপি পুরুষচৈতন্যের অধিষ্ঠানের ফলেই প্রকৃতিরও ক্রিয়াসম্পাদনে কর্তৃত্ব সম্ভবপর হয়। এই অভিপ্রায়েই গীতায় বলা হয়েছে

কার্যকারণকর্তৃত্বে হেতুঃ প্রকৃতিরচ্যতে।

পুরুষঃ সুখদুঃখানাং ভোতৃত্বে হেতুরচ্যত।।১৫

অর্থাৎ প্রকৃতি কার্য ও কারণের উৎপত্তির কারণ এবং পুরুষ সুখ ও দুঃখসমূহের উপলব্ধির কারণ বলে কথিত হয়। সাংখ্যদর্শনে যেরূপ পুরুষের সঙ্গে প্রকৃতির সংসর্গ বিষেশতঃ প্রকৃতি থেকে জগৎসৃষ্টির কথা বলা হয়েছে, গীতাতেও সেরূপ ক্ষেত্র ও ক্ষেত্রজ্ঞের সংযোগ থেকেই স্থাবর জঙ্গমাশ্রুক জগতের সৃষ্টির কথা স্বীকার করা হয়েছে। গীতায় তাই বলা হয়েছে-

যাবত্ সজ্জায়তে কিঞ্চিৎ সত্ত্বং স্থাবরজঙ্গমম্।

ক্ষেত্রক্ষেত্রজ্ঞসংযোগাত্ তদ্বিদ্ধি ভরতর্ষভ।।১৬।।

সুতরাং, গীতায় প্রকৃতি প্রভৃতিকেই ক্ষেত্র এবং ক্ষেত্রকে প্রকাশ করতে সক্ষম এমন পুরুষরূপী পরমাত্মাকে ক্ষেত্রজ্ঞ বলা হয়েছে।

পুরুষ ও প্রকৃতি বিষয়ে সাংখ্যদর্শন থেকে গীতার ভিন্ন মত।

সাংখ্যদর্শনানুসারে, প্রকৃতি স্বতন্ত্র। কিন্তু গীতার মতে, প্রকৃতি ঈশ্বরের অধীন। গীতায় তাই বলা হয়েছে।

ক্ষেত্রজ্ঞচাপি মাং বিদ্ধি সর্বক্ষেত্রেষু ভারত।

ক্ষেত্রক্ষেত্রজ্ঞয়োজ্ঞানং মন্তজ্ঞানং মতং মম।।১৭।।

অর্থাৎ ঈশ্বরকর্তৃক অধিষ্ঠিত হয়েই প্রকৃতি জগৎ রচনা করে। অথবা অচেতন প্রকৃতির পক্ষে জগৎ রচনা করা সম্ভব নয়। অধিষ্ঠাতা বলেই কিন্তু ঈশ্বরে উদাসীনত্বের ব্যাঘাত আশঙ্কনীয় নয়। কারণ সান্নিধ্যমাত্রই এখানে ঈশ্বরের অধিষ্ঠাতৃত্ব কল্পনা করা হয়েছে। তাই গীতায় বলা হয়েছে

ময়াধ্যক্ষ্যেণ প্রকৃতিঃ সূয়তে সচরাচরম্।

হেতুনানেন কৌন্তেয় জগদ্বিপরিবর্ততে।।১৮

প্রচলিত সাংখ্যে কিন্তু কোন ঈশ্বরই স্বীকার করা হয়নি। কারণ, পুরুষার্থতা হেতুই পুরুষের সঙ্গে প্রকৃতির সংসর্গবিশেষ এবং তার দ্বারাই প্রকৃতি কর্তৃক জগতের রচনাকে ব্যাখ্যা করা যায়। অতএব, সাংখ্যে

সৃষ্টিব্যাপারে প্রকৃতির স্বাতন্ত্র্যই স্বীকার করা হয়েছে পরতন্ত্র নয়। পুরুষের সঙ্গে প্রকৃতির এই যে সংযোগ পুরুষার্থতাকেই সাংখ্যে তার একমাত্র হেতু বলা হলেও গীতায় কিন্তু তাকে ঈশ্বরেচ্ছাধীন বলা হয়েছে।

প্রলয়কালে ঈশ্বরেচ্ছা থাকে না। তারফলে ঈশ্বরের অধিষ্ঠানও থাকে না। অতএব তখন সত্ত্ব, রজঃ, তমঃ এই তিনটি গুণ চরম সাম্যাবস্থায় বিরাজ করে। সৃষ্টির প্রারম্ভে ঈশ্বর প্রকৃতিকে ‘ঈক্ষণ’ করে সৃষ্টিকালে কর্মাধীন জীবগণকে ভোগ্য ক্ষেত্রের সঙ্গে

সংযুক্ত করেন। এইভাবেই ঈশ্বরেচ্ছায় পুরুষ ও প্রকৃতির গর্ভাধান বলা হয়েছে। এই জন্যই গীতায় প্রকৃতিকে সমস্ত কার্যবস্তুর যোনি এবং ঈশ্বরকে বীজপ্রদ পিতারূপে কল্পনা করা হয়েছে। গীতায় বলা হয়েছে-

মম যোনির্মহদ-ব্রহ্ম তস্মিন্ গর্ভং দধাম্যহম্।

সম্ভবঃ সর্বভূতানাং ততো ভবতি ভারত।।

সর্বযোনিষু কৌন্তেয় মূর্তয়ঃ সম্ভবন্তি যাঃ।

তাসাং ব্রহ্ম মহদ-যোনিরহং বীজপ্রদঃ পিতা।।১৯

গীতা সাংখ্যের পুরুষ প্রকৃতি ও তার পরিণামক্রম স্বীকার করে কিন্তু পুরুষ ও প্রকৃতিই যে মূলতত্ত্ব, তা স্বীকার করে না। মূলতত্ত্ব সেই পরম পুরুষ, পুরুষোত্তম বা পরব্রহ্ম পুরুষ ও প্রকৃতি তার বিভাব, তাঁরই ইচ্ছা বা অধ্যক্ষতায় প্রকৃতি সৃষ্টি করে প্রকৃতির স্বাতন্ত্র্য নেই। প্রকৃতিকে অষ্টধা বিভক্ত বলা হয়েছে। কিন্তু ক্ষিতি আদি পঞ্চভূত এবং মন যেগুলি সাংখ্যমতে বিকৃতি তাকে প্রকৃতির মধ্যেই অন্তর্ভুক্ত করা হয়েছে। গীতায় তাই বলা হয়েছে

মহাভূতান্যহঙ্কারো বুদ্ধিরব্যক্তমেব চ।

ইন্দ্রিয়াণি দশৈকঞ্চ পঞ্চ চেন্দ্রিয়গোচরাঃ।

ইচ্ছা দ্বেষঃ সুখং দুঃখং সংঘাতশ্চেতনা ধৃতিঃ।

এতৎ ক্ষেত্রং সমাসেন সবিকারমুদাহৃতম্।।২০

সুতরাং, উপর্যুক্ত আলোচনার মাধ্যমে এই সিদ্ধান্তে উপনীত হওয়া যায় যে, সাংখ্যদর্শন ও শ্রীমদ্ভগবদ্গীতার মধ্যে দৃষ্টিভঙ্গীগত যেকোন কিছু বৈসাদৃশ্য দৃষ্ট সেরূপ উভয় গ্রন্থের মধ্যে সাংখ্যে চক্রাকারেই প্রকৃতি থেকে সৃষ্টি এবং পরিশেষে প্রকৃতিতে লয়ের প্রবাহ স্বীকার করা হয়। এই প্রবাহের কোন বিরাম নেই। অনুরূপভাবে গীতাতেও তা প্রতিধ্বনিত হয়েছে-

ন তদন্তি পৃথিব্যাং বা দিবি দেবেষু বা পুনঃ।

সত্ত্বং প্রকৃতির্জৈমুক্তং যদেভিঃ স্যাৎ ত্রিভিগুণৈঃ।।২১

অর্থাৎ সৃষ্টিকালে অব্যক্ত প্রকৃতি থেকে ব্যক্তের আবির্ভাব হয় এবং প্রলয়কালে ঐ অব্যক্তেই ব্যক্তের তিরোভাব হয়।

অব্যক্তেই সকল ভূতের আছড় আদি এবং অব্যক্তেই সকলের নিধন অর্থাৎ উৎপত্তির পূর্বে সমগ্র জগৎ প্রকৃতিতে লীন থেকে অব্যক্ত অবস্থায় বিরাজ করে। সৃষ্টিকালে প্রকৃতিতেই যে জগতের লয় তা ঈশ্বর কর্তৃক নিয়ন্ত্রিত তা বলা হয়েছে। গীতায় ঈশ্বরের অধীন যে প্রকৃতি কল্পক্ষয়ে তাতেই সর্বভূত প্রবিষ্ট হয় এবং কল্পারম্ভে ঐ সমস্ত ভূতই পুনরায় ঈশ্বর কর্তৃক প্রকৃতিগর্ভ থেকে বিসৃষ্ট হয় তাই বলা হয়েছে এবং এই বিষয়েই সাংখ্যদর্শনের সঙ্গে তাদের মতভেদ হয়েছে। তবে, সৎকার্যবাদের অপর সাংখ্যের প্রকৃতিবাদ প্রতিধ্বনিত হয়েছে। কেবলমাত্র তাই নয় সাংখ্যযোগের যে সিদ্ধান্ত, 'যা অসৎ তার কখনই উৎপত্তি হয় না এবং যা সৎ তারও কখনই বিনাশ হয় না' তা গীতাতেও দ্ব্যর্থহীন ভাষায় ধ্বনিত হয়েছে এভাবে-

সর্বভূতানি কৌন্তেয় প্রকৃতিং যান্তি মামিকাম্।

কল্পক্ষয়ে পুনস্তানি কল্পাদৌ বিসৃজাম্যহম্।।২২

এখানে দেখা যাচ্ছে যে, প্রকৃতিকে ঈশ্বরের অধীনরূপে কল্পনা করার নিমিত্তই প্রকৃতির বিশেষরূপে 'মামিকা' পদটি প্রদত্ত হয়েছে।

পরিশেষে বলা যায়, গীতার মতে, ঈশ্বর বা পুরুষোত্তমই হল পরম তত্ত্ব। প্রকৃতি, পুরুষকে ঈশ্বরের অবয়ব বলা হচ্ছে গীতায়। সাংখ্যদর্শনের প্রকৃতি গীতার মতে, ঈশ্বরের 'অপরা প্রকৃতি' এবং 'পরা প্রকৃতি' হল সাংখ্যোক্ত পুরুষ। ঈশ্বরের এই অপরা প্রকৃতিকে সমগ্র জড়বর্গের উপাদান বলে বর্ণনা করা হলেও সর্বদা ঈশ্বরপারতন্ত্র্যের কথা বলা হয়েছে। নিরীশ্বর হলেও সাংখ্যশাস্ত্র সর্বমান্য। পুরাণ, ইতিহাস, মন্বাদি স্মৃতি ও ভাগবতশাস্ত্র সর্ব এই সাংখ্যশাস্ত্রে আলোচিত হয়েছে। গীতাতেও সাংখ্যের অনেক সিদ্ধান্ত অবিকল গ্রহণ করা হয়েছে।

উল্লেখপঞ্জি

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৫. তদেব, ৭.৫।
৬. সাংখ্যসূত্র, ৬.৩৯।
৭. তদেব, ১.৬১।
৮. শ্রীমদ্ভগবদগীতা, ৩.২৭।
৯. তদেব, ১৪.৫।
১০. শ্বেতাশ্বতরোপনিষদ, ৪.৫।
১১. সাংখ্যকারিকা, ১.১১।
১২. যোগভাষ্য, ২.১৯।
১৩. যোগসূত্র, ১.২।
১৪. শ্রীমদ্ভগবদগীতা, ৭.৫.৬।
১৫. তদেব, ১৩.২১।
১৬. তদেব, ১৩.২৭।
১৭. তদেব, ১৩.৩।
১৮. তদেব, ৩.১০।
১৯. তদেব, ১৪.৩.৪।
২০. তদেব, ১৩.৬.৭।
২১. তদেব, ১৮.৪০।
২২. তদেব, ৯.৭।

নির্বাচিত গ্রন্থপঞ্জি

কপিল। সাংখ্যসূত্র। সম্পা. অমিত ভট্টাচার্য। কলকাতাঃ সদেশ, ২০০৯।

পতঞ্জলি। যোগসূত্র। সম্পা. গোস্বামী দামোদর শাস্ত্রী। বেনারসঃ চৌখম্বা সংস্কৃত সীরিজ অফিস, ১৯৩৫।

--। পাতঞ্জলদর্শন। সম্পা, পূর্ণচন্দ্র শর্মা। কলকাতাঃ পশ্চিমবঙ্গ রাজ্য পুস্তক পর্ষদ, ২০০৫ (দ্বিতীয় মুদ্রণ)।

বাচস্পতিমিশ্র। সাংখ্যতত্ত্বকৌমুদী। সম্পা, নারায়ণ চন্দ্র গোস্বামী। কোলকাতাঃ সংস্কৃত পুস্তক ভান্ডার, ১৪০৬ বঙ্গাব্দ।

ব্যাসদেব। যোগভাষ্য। সম্পা. গোস্বামী দামোদর শাস্ত্রী। বেনারসঃ চৌখম্বা সংস্কৃত সীরিজ অফিস, ১৯৩৫।

মহানামব্রত ব্রহ্মচারী। উপনিষদ ভাবনা। কলিকাতাঃ শ্রীমহানাম ব্রত কালচারাল এ্যান্ড ওয়েলফেয়ার ট্রাস্ট, ১৪০৬ বঙ্গাব্দ।

শ্রীমদ্ভগবদগীতা। সম্পা, স্বামী জগদীশ্বরানন্দ এবং স্বামী জগদানন্দ। কলকাতাঃ উদ্বোধন কার্যালয়, ২০১৯।