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Effects of Fluoride-Contaminated Ground water on Morphological and Biochemical Characteristics of *Spinacia oleracea*

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Abstract

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This study explores the effects of fluoride-contaminated groundwater, simulated by varying concentrations of sodium fluoride (NaF), on the morphological and biochemical characteristics of *Spinacia oleracea* (spinach). Pot experiments were conducted using NaF concentrations of 0, 4, 8, 10, and 12 mg/L to reflect a range of environmental exposures. The impact of fluoride was assessed at multiple developmental stages by evaluating seed germination, seedling vigor, mature plant growth parameters, and key biochemical indices. The results revealed a clear dose-dependent inhibition of seed germination, seedling growth, and mature plant development, with significant reductions in root and shoot length, biomass, leaf area, and grain yield at higher fluoride concentrations. Morphological symptoms of fluoride toxicity, such as chlorosis, wilting, and stunted growth, were observed in treated plants. Biochemically, increasing NaF exposure led to marked decreases in chlorophyll and protein content and calorific value, while fluoride accumulation in plant tissues significantly increased. These findings indicate that high levels of fluoride in irrigation water can severely impair spinach growth and reduce nutritional quality, posing a threat to crop productivity and food safety in regions affected by fluoride-rich groundwater. The results underscore the importance of monitoring water quality and adopting mitigation strategies in agriculture.

Keywords: Fluoride toxicity, *Spinacia oleracea*, groundwater contamination, morphological traits, biochemical parameters, phytotoxicity, environmental stress, seed germination

Introduction:

Groundwater contamination with fluoride is a pressing environmental and agricultural issue, particularly in regions where groundwater serves as the primary source for both irrigation and



drinking water. Naturally occurring fluoride is found in various geological formations and can leach into groundwater, especially in arid and semi-arid regions where water tables are deep and evaporation rates are high (Amini et al., 2008). While low concentrations of fluoride (typically less than 1.5 mg/L, as recommended by the World Health Organization) are known to provide dental health benefits and may even enhance plant growth in trace amounts, excessive fluoride is toxic to both humans and plants (Barbier et al., 2010; WHO, 2011). Chronic exposure to high fluoride levels can lead to fluorosis, a debilitating condition affecting bones and teeth in humans, and also disrupts plant physiological processes, ultimately affecting crop yield and quality (Gupta et al., 2009; Ranjan et al., 2009).

Plants irrigated with fluoride-rich water are particularly at risk, as they can absorb and accumulate fluoride in their tissues. The extent of fluoride uptake and its phytotoxic effects depend on several factors, including soil properties, plant species, growth stage, and the duration and concentration of exposure (Kumar et al., 2009). Among vegetables, leafy crops such as *Spinacia oleracea* are highly susceptible because of their high transpiration rates and the edible nature of their foliage. Consequently, the accumulation of fluoride in spinach not only impairs plant growth but also poses risks to food safety for consumers (Singh et al., 2013).

Previous studies have reported that excess fluoride interferes with a wide range of physiological and biochemical processes in plants. Notably, it can inhibit seed germination, reduce root and shoot elongation, and impair leaf expansion, leading to stunted growth and lower productivity (Bhargava & Bhargava, 2013). The underlying mechanisms of fluoride toxicity involve disruption of cell division, inhibition of enzyme activities, and interference with nutrient uptake and transport (Barbier et al., 2010; Aske & Iqbal 2014). Biochemically, fluoride exposure has been shown to decrease chlorophyll synthesis, resulting in chlorosis (yellowing of leaves) and reduced photosynthetic efficiency. Additionally, protein content and overall metabolic activity are suppressed, likely due to the inhibitory effects of fluoride on key enzymes and protein synthesis pathways (Gupta et al., 2009; Kumar et al., 2009).

Beyond physiological symptoms, fluoride toxicity manifests as visible morphological changes. Plants exposed to elevated fluoride often exhibit symptoms such as leaf tip burn, marginal necrosis, wilting, and a general reduction in leaf area and biomass accumulation (Ranjan et al., 2009). These effects not only compromise plant health and vigor but also reduce the nutritional and market value of affected crops. The cumulative impact of fluoride toxicity thus poses a significant threat to sustainable agriculture, especially in areas where groundwater contamination is widespread and monitoring or remediation practices are limited (Amini et al., 2008; Singh et al., 2013).

Despite the recognition of fluoride's phytotoxic effects, comprehensive studies examining its impact on both morphological and biochemical characteristics of spinach under controlled

conditions remain limited. Most existing research has focused on single growth stages or isolated parameters, providing an incomplete picture of the full extent of fluoride-induced damage. Therefore, the present study aims to systematically evaluate the effect of fluoride-contaminated groundwater, simulated by sodium fluoride treatments, on seed germination, early seedling development, mature plant morphology, and key biochemical indices such as chlorophyll, protein content, calorific value, and fluoride accumulation in *Spinacia oleracea*.

Materials and Methodology:

Earthen pots of equal size were sterilized, filled with sandy loam soil mixed with natural fertilizers, and irrigated with distilled water. Sodium fluoride (NaF) solutions at 4, 8, 10, and 12 mg/L were applied to study their effects on selected vegetables, parallel to field experiments. Growth parameters recorded included seed germination, seedling traits (root, shoot, coleoptile length and biomass), mature plant growth, leaf area, and phenotypic changes. Biochemical indicators such as chlorophyll, protein, calorific value, and fluoride accumulation were also assessed. Seeds were surface-sterilized, germinated under controlled conditions, and seedlings measured after seven days. Mature plant measurements and biochemical analyses followed standard methods, including Arnon, Lowry, bomb calorimetry, and ion-selective electrode techniques, with all experiments performed in triplicate.

$$\text{G.P.} = \frac{\text{Number of normally germinated seeds}}{\text{Total number of seeds}} \times 100$$

Results:**Effect of Fluoride on Seed Germination Percentage and Germination Index:**

Exposure to increasing concentrations of sodium fluoride (NaF) in *Spinacia oleracea* resulted in a clear, dose-dependent reduction in both seed germination percentage and germination index after 48 hours. The control group, with no added fluoride, exhibited the highest seed germination (95%) and germination index (18.5). As the NaF concentration increased, both parameters declined progressively, with the most severe reduction observed at 12 mg/L, where only 48% of seeds germinated and the germination index dropped to 9.5. These results indicate that fluoride contamination significantly hampers the early stages of spinach seed development, potentially by impairing metabolic processes required for germination (Table 1).

Table 1: Effect of Fluoride-Contaminated Groundwater (NaF) on Seed Germination Percentage and Germination Index of *Spinacia oleracea* after 48 Hours (Values are presented as mean $\pm$ standard error (SE) from three replicates)

Treatment Group	NaF (mg/L)	Seed Germination (%)	Germination Index (GI)
Control	0	95 $\pm$ 2	18.5 $\pm$ 0.4
Treated Group 1	4	89 $\pm$ 3	17.2 $\pm$ 0.3
Treated Group 2	8	77 $\pm$ 4	15.0 $\pm$ 0.5
Treated Group 3	10	62 $\pm$ 5	12.1 $\pm$ 0.7
Treated Group 4	12	48 $\pm$ 6	9.5 $\pm$ 0.9

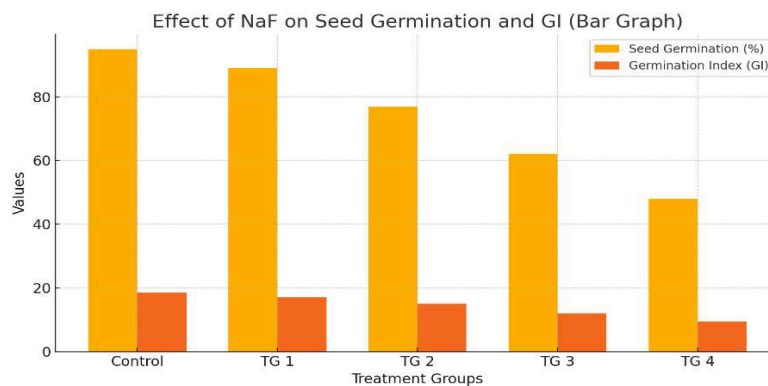


Figure1 : Graph comparing the seed germination percentage and the germination index (GI) across different NaF concentrations for *Spinacia oleracea*

Effect of Sodium Fluoride on Seedling Growth Parameters:

After 72 hours of exposure to NaF, spinach seedlings showed marked declines in root and shoot lengths, total weight, dry weight, and seedling vigor index. The control seedlings had the longest roots and shoots, and the highest vigor index (741). Fluoride-treated seedlings displayed progressively shorter roots and shoots, with root reduction reaching 58.1% and shoot reduction 47.4% at 12 mg/L NaF. Correspondingly, total seedling weight and dry weight decreased, as did coleoptile length. The seedling vigor index dramatically dropped to 246 at the highest fluoride concentration, reflecting the substantial inhibitory effect of fluoride on overall seedling health and early growth potential (Table 2).

Table 2: Effect of Sodium Fluoride (NaF) on Seedling Growth Parameters of *Spinacia oleracea* after 72 Hours

Treatment Group	NaF (mg/L)	Root Length (cm)	Shoot Length (cm)	Root Reduction (%)	Shoot Reduction (%)	Coleoptile Length (cm)	Total Weight (mg)	Total Dry Weight (mg)	Seedling Vigor Index (SVI)
Control	0	6.2 ± 0.2	7.8 ± 0.3	0	0	3.5 ± 0.1	115 ± 4	28 ± 1	741
Treated Group 1	4	5.5 ± 0.3	7.1 ± 0.2	11.3	9.0	3.2 ± 0.2	104 ± 3	25 ± 1	670
Treated Group 2	8	4.7 ± 0.2	6.2 ± 0.2	24.2	20.5	2.8 ± 0.1	92 ± 4	22 ± 2	529
Treated Group 3	10	3.9 ± 0.2	5.4 ± 0.2	37.1	30.8	2.5 ± 0.1	80 ± 3	18 ± 1	398
Treated Group 4	12	2.6 ± 0.4	4.1 ± 0.3	58.1	47.4	1.9 ± 0.1	62 ± 5	12 ± 1	246

Effect of Sodium Fluoride on Growth Parameters After 30 Days:

Long-term exposure to increasing NaF concentrations led to significant reductions in root length, shoot length, root and shoot weights, and grain yield in spinach plants after 30 days. The control group maintained the highest values for all parameters, while plants treated with 12 mg/L NaF had root and shoot lengths reduced by more than half and exhibited the lowest root and shoot biomass (1.1 g and 3.2 g, respectively) along with a sharp decline in grain yield (0.7 g/plant). These trends indicate that chronic fluoride exposure severely restricts the development and productivity of spinach plants (Table 3).

Effect of Sodium Fluoride on Morphological Characteristics:

Morphological assessment of spinach after 30 days revealed pronounced fluoride toxicity symptoms with increasing NaF levels. Control plants were robust, with well-branched roots, healthy shoots, and the highest number of leaves and leaf area. Even at 4 mg/L, mild reductions in root length and chlorosis began to appear. At higher concentrations, roots became thinner, less branched, with brownish tips, and shoots displayed increasing levels of chlorosis and wilting. The number of leaves, their weight, and total leaf area steadily decreased, with the most severe stunting

and leaf damage at 12 mg/L NaF, highlighting the negative impact of fluoride on plant morphology and foliage development (Table 4).

Table 3: Effect of Sodium Fluoride (NaF) on Growth Parameters of *Spinacia oleracea* After 30 Days. Values presented as mean $\pm$ standard error (n = 3).

Treatment Group	NaF (mg/L)	Root Length (cm)	Shoot Length (cm)	Root Weight (g)	Shoot Weight (g)	Grain Yield (g/plant)
Control	0	18.2 $\pm$ 0.7	25.4 $\pm$ 0.8	2.8 $\pm$ 0.1	7.3 $\pm$ 0.2	2.1 $\pm$ 0.1
Treated Group 1	4	16.7 $\pm$ 0.6	23.5 $\pm$ 0.7	2.5 $\pm$ 0.1	6.6 $\pm$ 0.2	1.8 $\pm$ 0.1
Treated Group 2	8	14.3 $\pm$ 0.8	20.4 $\pm$ 0.9	2.0 $\pm$ 0.1	5.8 $\pm$ 0.3	1.5 $\pm$ 0.1
Treated Group 3	10	11.8 $\pm$ 0.7	16.8 $\pm$ 0.8	1.5 $\pm$ 0.1	4.6 $\pm$ 0.2	1.1 $\pm$ 0.1
Treated Group 4	12	8.9 $\pm$ 0.6	13.2 $\pm$ 0.9	1.1 $\pm$ 0.1	3.2 $\pm$ 0.2	0.7 $\pm$ 0.1

Table 4: Effect of Sodium Fluoride (NaF) on Morphological Characteristics of *Spinacia oleracea* After 30 Days. Values presented as mean $\pm$ standard error (n = 3).

Treatment Group	NaF (mg/L)	Root Phenotype	Shoot Phenotype	No. of Leaves	Leaf Weight (g)	Leaf Area (cm ²)
Control	0	Normal, well-branched	Robust, green	19 $\pm$ 1	5.3 $\pm$ 0.2	78.6 $\pm$ 3.2
Treated Group 1	4	Slightly reduced length	Mild chlorosis	17 $\pm$ 1	4.7 $\pm$ 0.2	71.4 $\pm$ 2.8
Treated Group 2	8	Thinner, less branched	Noticeable chlorosis	14 $\pm$ 1	3.9 $\pm$ 0.2	59.2 $\pm$ 3.1
Treated Group 3	10	Short, poorly branched	Chlorosis, mild wilting	11 $\pm$ 2	2.8 $\pm$ 0.3	43.7 $\pm$ 2.5
Treated Group 4	12	Stunted, brownish tips	Severe chlorosis, wilting	8 $\pm$ 1	1.6 $\pm$ 0.2	29.5 $\pm$ 2.0

Effect of Sodium Fluoride on Biochemical Parameters

Biochemical analysis of spinach leaves after 30 days under fluoride stress showed significant reductions in chlorophyll and protein content, alongside increased fluoride accumulation and decreased calorific value. The control group had the highest chlorophyll (2.65 mg/g FW) and protein levels (28.5 mg/g FW), while plants exposed to 12 mg/L NaF showed drastic declines in both (0.95 mg/g FW and 12.6 mg/g FW, respectively). Fluoride accumulation in leaves increased sharply with rising NaF, reaching 13.5 mg/kg DW at the highest dose. Calorific value also declined, suggesting diminished nutritional quality and energy content due to fluoride toxicity (Table 5).

Table 5: Effect of Sodium Fluoride (NaF) on Biochemical Parameters of *Spinacia oleracea* Leaves (After 30 Days). Values presented as mean $\pm$ standard error (n = 3). FW = Fresh Weight; DW = Dry Weight.

Treatment Group	NaF (mg/L)	Chlorophyll Content (mg/g FW)	Protein Content (mg/g FW)	Leaf Fluoride (mg/kg DW)	Calorific Value (kcal/g DW)
Control	0	2.65 $\pm$ 0.08	28.5 $\pm$ 1.1	1.2 $\pm$ 0.1	4.15 $\pm$ 0.06
Treated Group 1	4	2.30 $\pm$ 0.07	25.3 $\pm$ 0.9	3.6 $\pm$ 0.2	4.02 $\pm$ 0.05
Treated Group 2	8	1.87 $\pm$ 0.06	22.1 $\pm$ 0.8	6.9 $\pm$ 0.3	3.88 $\pm$ 0.05
Treated Group 3	10	1.41 $\pm$ 0.05	17.5 $\pm$ 0.7	10.8 $\pm$ 0.4	3.69 $\pm$ 0.04
Treated Group 4	12	0.95 $\pm$ 0.04	12.6 $\pm$ 0.6	13.5 $\pm$ 0.5	3.45 $\pm$ 0.04

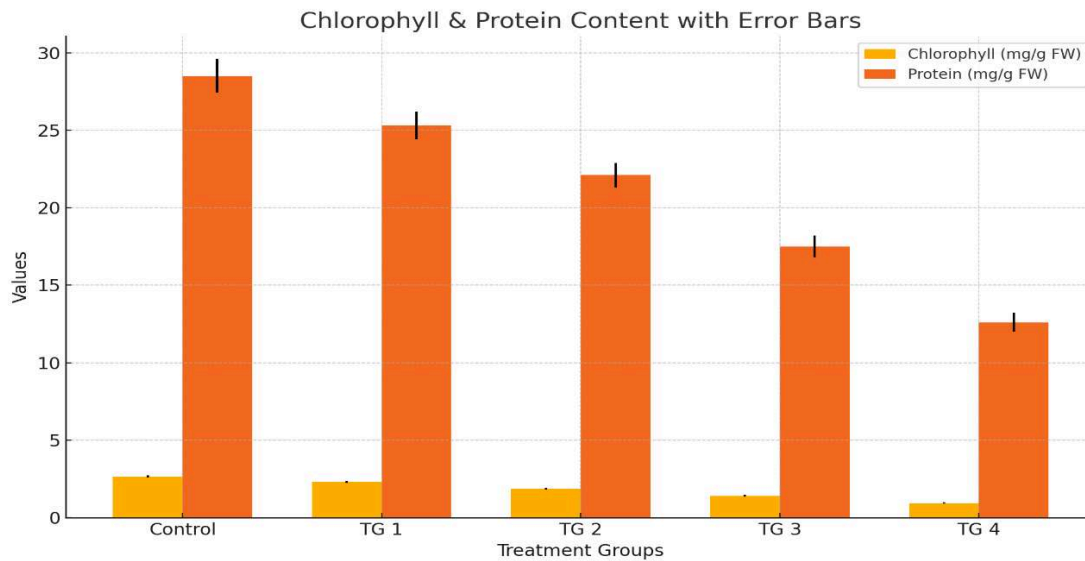


Figure 2: Effect of different conc. of NaF on Chlorophyll and Protein content of *Spinacia oleracea* Leaves. Values presented as mean $\pm$ standard error (n = 3).

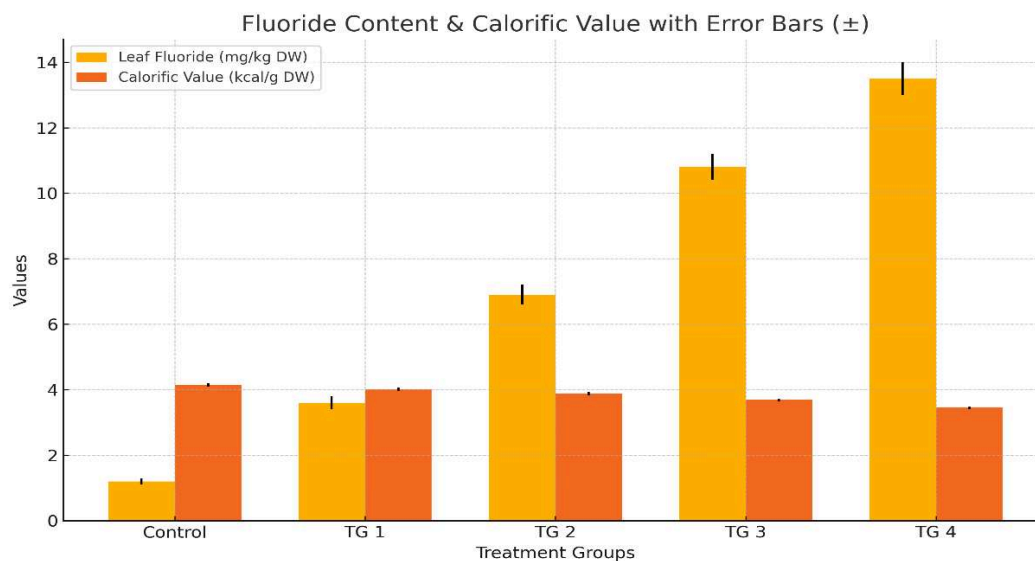


Figure 3: Effect of different conc. of NaF on Leaf Fluoride (mg/kg DW) and Calorific Value (kcal/g DW) of *Spinacia oleracea* Leaves. Values presented as mean $\pm$ standard error (n = 3).

**Discussion**

The findings of this study demonstrate that fluoride-contaminated groundwater, simulated with sodium fluoride (NaF), imposes significant adverse effects on both morphological and biochemical characteristics of *Spinacia oleracea*. The observed dose-dependent reduction in seed germination percentage and germination index aligns with previous reports indicating that fluoride disrupts early seed metabolic activity, likely by interfering with key enzymes and cellular energy processes (Kumar et al., 2009; Aske & Iqbal 2013; Bhargava & Bhargava, 2013). Seedlings exposed to higher NaF concentrations exhibited substantial decreases in root and shoot lengths, fresh and dry biomass, and vigor index. These results are consistent with studies on other crops, which also documented inhibition of cell elongation and division, resulting in stunted early growth (Gupta et al., 2009).

At the mature plant stage, chronic fluoride exposure led to marked reductions in root and shoot growth, leaf area, and biomass accumulation, as well as grain yield. Morphological symptoms such as chlorosis, wilting, and stunted or poorly branched roots became increasingly apparent at higher fluoride concentrations. These symptoms correlate with fluoride's disruption of nutrient uptake, photosynthetic efficiency, and membrane integrity (Barbier et al., 2010). The decrease in leaf number, weight, and area further reflects impaired photosynthetic capacity, which is essential for plant growth and productivity.

Biochemical analyses provide further insight into the physiological basis of fluoride toxicity. The substantial decline in chlorophyll content under increasing NaF exposure may be attributed to fluoride-induced inhibition of key enzymes involved in chlorophyll biosynthesis, as well as enhanced oxidative stress and chloroplast damage (Kumar et al., 2009). Reduced protein content suggests suppressed metabolic activity and impaired nitrogen assimilation, which are vital for plant growth and stress response (Gupta et al., 2009). The decrease in calorific value indicates a reduction in the overall nutritional quality of spinach, which is a serious concern for food security in fluoride-affected regions. The pronounced accumulation of fluoride in leaf tissues observed in this study raises food safety concerns, as spinach is widely consumed and can serve as a direct source of fluoride exposure for humans (Amini et al., 2008).

Collectively, these findings reinforce the urgent need for monitoring and managing water quality in agricultural settings, especially in regions where groundwater fluoride exceeds recommended limits. Potential mitigation strategies include blending high-fluoride water with safer sources, adopting fluoride-tolerant crop varieties, and implementing phytoremediation or soil amendments to limit fluoride uptake (Barbier et al., 2010; Singh et al., 2013). Further research is warranted to elucidate the molecular mechanisms of fluoride toxicity and to develop effective agricultural interventions for minimizing risks to crop yield and human health.

**Conclusion:**

This study highlights the detrimental impact of fluoride-contaminated groundwater on the growth, morphology, and biochemical attributes of *Spinacia oleracea*. Elevated fluoride levels significantly hindered germination, growth, yield, and nutritional quality, while increasing fluoride accumulation in edible tissues. These results underscore the necessity of regular groundwater monitoring and the adoption of mitigation strategies to safeguard crop productivity and food safety in affected regions.

References:

1. Amini, M., Mueller, K., Abbaspour, K. C., Rosenberg, T., Afyuni, M., Møller, K. N., ... & Johnson, C. A. (2008). Statistical modeling of global geogenic fluoride contamination in groundwaters. *Environmental Science & Technology*, 42(10), 3662–3668. <https://doi.org/10.1021/es071958y>
2. Aske, D. K., & Iqbal, S. (2013). Evaluation of Physical chemical Characteristics of Ground water at Alirajpur, Madhya Pradesh, India. *Researcher*, 5(1), 89-95.
3. Aske, D. K., & Iqbal, S. (2014). Laboratory study of fluoride toxicity on wheat (*Triticum aestivum* Var. lok-1), *Science Research Reporter*, 4(2):159-162.
4. Barbier, O., Arreola-Mendoza, L., & Del Razo, L. M. (2010). Molecular mechanisms of fluoride toxicity. *Chemico-Biological Interactions*, 188(2), 319–333. <https://doi.org/10.1016/j.cbi.2010.07.011>
5. Bhargava, D., & Bhargava, A. (2013). Effects of fluoride on growth and metabolism of plants. *International Journal of Science and Research*, 2(8), 260–263.
6. Gupta, S., Banerjee, S., Saha, R. N., & Datta, J. K. (2009). Impact of fluoride on photosynthesis, growth and accumulation of free proline in rice (*Oryza sativa* L.). *Research Bulletin of the Panjab University Science*, 59, 85–92.
7. Kumar, S., Tripathi, R. D., Rai, U. N., & Singh, N. (2009). Impact of fluoride on photosynthetic pigments, lipid peroxidation, and antioxidant enzymes in *Azolla pinnata*. *Biologia Plantarum*, 53(3), 563–566. <https://doi.org/10.1007/s10535-009-0101-z>
8. Ranjan, R., Ranjan, A., Mehrotra, N., & Singh, K. (2009). Effect of fluoride toxicity on growth parameters in Spinach (*Spinacia oleracea*). *Indian Journal of Environmental Science*, 13(1), 37–40.
9. Singh, M., Chauhan, M., & Tandon, P. K. (2013). Effects of fluoride on growth and metabolism in plants: A review. *International Journal of Pharmaceutical Sciences Review and Research*, 21(1), 154–161.



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10. World Health Organization. (2011). Guidelines for drinking-water quality (4th ed.). Geneva: WHO Press.



The National Education Policy 2020: A Catalyst for Educational Transformation in 2025

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Abstract

As Malcolm X wisely stated, *"Education is the passport to the future, for tomorrow belongs to those who prepare for it today."* Recognizing the need for an upgraded and holistic approach to education, India introduced the National Education Policy (NEP) 2020, a transformative initiative aimed at redefining traditional learning methods. As Education is the backbone of a progressive society, evolving continuously to meet the demands of the modern world. The National Education Policy (NEP) 2020, a ground breaking reform in India's education system, aims to bridge the gap between traditional and contemporary learning approaches. Moving beyond routine memorization, NEP 2020 emphasizes conceptual understanding, skill-based education, and digital inclusivity. As we enter 2025, its implementation has advanced significantly, integrating AI-driven learning, flexible curriculum, and vocational training. Initiatives like *Skill India 2.0* and *Bharat AI Education Project* have revolutionized the education landscape, providing students with real- world skills and adaptive learning platforms. Universities now offer hybrid programs that merge disciplines such as data science with psychology and environmental studies with business analytics. AI-driven tools like *Bhasha AI* enable multilingual education, making learning accessible to students from diverse linguistic backgrounds. However, challenges such as infrastructure gaps and digital literacy barriers persist. The government's ongoing efforts in funding and public-private partnerships aim to address these hurdles. NEP 2020, with its futuristic approach, is set to redefine India's educational framework, ensuring students are not just passive learners but innovative thinkers. As Swami Vivekananda profoundly stated, *"Education is the manifestation of the perfection already in*



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man." The successful execution of NEP 2020 will shape India's knowledge-driven future, empowering students for global opportunities. Furthermore, NEP 2020 has introduced competency-based assessments that evaluate students on critical thinking and problem-solving abilities. The integration of AI-powered learning platforms enables personalized education, catering to individual learning paces. Digital inclusivity has been strengthened through government initiatives providing free internet access to underprivileged students. Additionally, vocational education is now a key component of school curriculums, ensuring students graduate with industry-relevant skills. The rise of interdisciplinary education has allowed students to combine fields such as artificial intelligence, entrepreneurship, and environmental science, preparing them for the evolving job market. While the policy's benefits are evident, challenges such as teacher training, infrastructure disparities, and digital literacy must still be addressed. As India progresses towards a knowledge-based economy, NEP 2020 will play a crucial role in shaping the nation's future leaders and innovators.

Keywords: National Education Policy 2020, AI-driven learning, skill-based education, digital transformation, vocational training, multidisciplinary education, Bharat AI, Bhasha AI, competency-based assessment, interdisciplinary education.

Introduction:

Education shapes minds, fuels innovation, and prepares individuals to meet the challenges of an evolving world. As Dr. Sarvepalli Radhakrishnan emphasized, *"The true teachers are those who help us think for ourselves."* Recognizing the need for an upgraded and holistic approach to education, India introduced the National Education Policy (NEP) 2020, a transformative initiative aimed at redefining traditional learning methods. The NEP 2020 shifts the focus from rote memorization to critical thinking, creativity, and multidisciplinary learning, aligning with Albert Einstein's belief that *"Education is not the learning of facts, but the training of the mind to think."*



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As we step into 2025, significant advancements have been made in the implementation of NEP 2020. The widespread adoption of digital classrooms, AI-driven tutoring, and skill-based programs has enabled a more inclusive and adaptive education system. The integration of blockchain technology for secure certification, the rise of augmented reality (AR) in interactive learning, and the expansion of rural education infrastructure have further strengthened India's education sector. Initiatives like *Digital Bharat Shiksha* and *EdTech for All* have expanded access to quality education for students in remote areas. Additionally, India's push towards fostering research and innovation through the *National Research Foundation* ensures that students not only consume knowledge but also contribute to its creation. This research article explores the key features of NEP 2020, its 2025 advancements, and its impact on the education system.

Key Features and 2025 Updates in NEP 2020

1. Flexible Curriculum Structure:

NEP 2020 introduced a new pedagogical structure of 5+3+3+4, replacing the previous 10+2 system. In 2025, its implementation has been enhanced through experiential learning models and cross-disciplinary studies. For example, the CBSE board has introduced hybrid courses where students can combine STEM subjects with humanities, allowing greater flexibility in career choices. Schools have adopted project-based assessments, where students solve real-world problems rather than memorizing theoretical concepts. A notable example is *TheGreen Earth Project* in Karnataka, where students work on real-time environmental challenges by designing sustainable solutions in collaboration with local NGOs.

2. Focus on Vocational Education

By 2025, vocational training is now an integral part of school education from Grade 6 onward. Government initiatives like *Skill India 2.0* and the *Start-up School Program* encourage students to gain hands-on experience in fields such as robotics, digital marketing, and sustainable agriculture. IITs and NITs have also collaborated with secondary schools to provide vocational boot camps. For instance, Delhi's *Tech for Rural Development* initiative trains students in solar panel installation, enabling them to contribute to sustainable energy solutions. Additionally, Kerala's *Agritech for Youth* program teaches students precision farming techniques using AI-driven tools, bridging the gap between agriculture and technology.

3. Technology-Driven Learning

With the rise of AI-driven learning platforms like DIKSHA 2.0 and e-VIDYA, personalized learning experiences have become accessible to students across India. The introduction of AI tutors, AR/VR-enabled classrooms, and blockchain-based certification systems has revolutionized



the traditional learning model. The *Bharat AI Education Project* launched in 2025 aims to integrate AI into school curriculums, making learning more interactive. Schools in Bengaluru have already implemented AI-driven assessment tools that track students' strengths and suggest personalized learning plans. A case in point is Mumbai's *Smart Classroom Initiative*, which uses AI-generated lesson plans based on students' learning behaviors to enhance engagement.

4. Multidisciplinary and Competency-Based Education

Breaking the rigid boundaries between science, commerce, and arts, NEP 2020 encourages students to pursue interdisciplinary education. By 2025, universities such as Delhi University and IISc have introduced hybrid degree programs where students can combine subjects like Data Science with Psychology or Environmental Studies with Business Analytics. This change enhances employability by aligning education with industry demands. For instance, the *Smart Cities Research Project* allows engineering students to collaborate with social science scholars to develop sustainable urban solutions. The *AI for Healthcare* initiative at AIIMS integrates medical students with data science experts to improve diagnostic accuracy using AI models.

5. Promotion of Regional Languages and Cultural Heritage

As part of NEP's linguistic inclusivity policy, by 2025, over 50 universities offer complete degree programs in regional languages. AI-based translation tools have further facilitated multilingual education. For instance, *Bhasha AI*, an initiative by the Indian government, provides real-time translation of online courses in over 22 Indian languages. In rural Maharashtra, schools using AI-driven language tools have reported a 30% increase in student engagement and comprehension. Additionally, Rajasthan's *Heritage Learning Initiative* incorporates regional history and folklore into school curricula, preserving India's cultural richness through education.

Impact of NEP 2020 in 2025

1. Transformation in Assessment Patterns:

Examinations now focus on conceptual clarity and application-based learning. The introduction of *AI-based Adaptive Testing* helps personalize assessments based on a student's learning curve. Schools and universities now use competency-based assessments rather than just marks-based evaluations.

2. Bridging the Rural-Urban Divide

Digital learning initiatives like the *One Student One Device* program have equipped over 10 million students with tablets and internet access. Smart classrooms powered by *Gyan AI* are being established in rural India, bringing quality education to remote areas.

**3. Enhancing Teacher Training Programs**

The *National Teacher Training Portal* launched in 2025 provides AI-assisted modules for educators to upgrade their teaching skills. Continuous professional development (CPD) programs have become mandatory for teachers in both government and private schools.

4. Encouraging Research and Innovation

The establishment of the *National Research Foundation (NRF) 2025* has significantly increased funding for scientific research and technology development. Universities are now required to dedicate at least 10% of their curriculum to research-based projects.

Challenges and the Road Ahead

While NEP 2020 has made significant strides, challenges remain. These include infrastructure gaps in rural schools, digital literacy barriers among teachers, and the need for better industry-academia collaboration. The government is addressing these issues through increased funding and public-private partnerships.

Conclusion

NEP 2020 has laid the foundation for an educational revolution, and its 2025 advancements demonstrate its potential to transform India into a knowledge-driven economy. The integration of AI, skill-based education, and digital inclusivity ensures that students are not just learners but future innovators.

The success of NEP 2020 depends on the collective effort of educators, policymakers, students, and parents. In order to fully realize its potential, it is essential to continuously address challenges such as digital literacy, teacher training, and access to resources. The policy's focus on a holistic and flexible curriculum will help students develop critical thinking, creativity, and problem-solving skills, making them better prepared for the dynamic job market.

Furthermore, the inclusion of vocational training from an early stage empowers students with practical skills, reducing dependency on conventional degree-based education. By 2025, India has witnessed a rise in entrepreneurial ventures among students who, through NEP-driven programs, have been able to translate their innovative ideas into successful businesses. Initiatives like *Skill India 2.0* and *Start up School Program* have created a culture of self-reliance and innovation, leading to economic growth and job creation.

Additionally, the integration of AI-driven learning platforms and AR/VR-based classrooms has transformed the way students grasp complex subjects. These advancements have enabled personalized learning experiences, bridging gaps in conventional teaching methodologies. *Bharat*



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AI Education Project and *Bhasha AI* have further strengthened digital inclusivity, allowing students from rural backgrounds to access world-class education in their native languages. This linguistic inclusivity fosters deeper comprehension and encourages regional participation in the broader knowledge economy.

Beyond academics, NEP 2020 has also played a crucial role in character building, promoting ethics, empathy, and social responsibility. Schools have integrated value-based education programs where students engage in community-driven projects, fostering a sense of civic duty. The *Heritage Learning Initiative* in Rajasthan, for example, has successfully integrated cultural history with mainstream education, helping students connect with their roots while embracing modern knowledge.

As India progresses towards becoming a global knowledge hub, NEP 2020 ensures that its education system remains future-ready. It is a transformative policy that aims not just to educate but to empower individuals with the ability to think, innovate, and contribute meaningfully to society. As Dr.A.P.J. Abdul Kalam profoundly stated, "*Learning gives creativity, creativity leads to thinking, thinking provides knowledge, and knowledge makes you great.*" The collective effort of educators, policymakers, and students will determine the success of this visionary policy, shaping India's educational landscape for decades to come. With a commitment to innovation, inclusivity, and holistic development, NEP 2020 has set the stage for an enlightened and progressive future for Indian education.

References:

1. Government of India, Ministry of Education. (2020). *National Education Policy 2020*. Retrieved from <https://www.education.gov.in>
2. NITI Aayog. (2025). *Bharat AI Education Project and Digital Transformation in Indian Education*. Retrieved from <https://www.niti.gov.in>
3. CBSE. (2025). *New Curricular Reforms and Implementation of NEP 2020*. Retrieved from <https://www.cbse.gov.in>
4. Skill India Mission. (2025). *Vocational Education and Skill Development Report*. Retrieved from <https://www.skillindia.gov.in>
5. AICTE. (2025). *Technology Integration and Multidisciplinary Learning in Higher Education*. Retrieved from <https://www.aicte-india.org>
6. Swami Vivekananda. (1893). *Lectures from Colombo to Almora*.
7. Radhakrishnan, S. (1936). *The Heart of Hindustan: The Role of Education*.



International Educational Applied Research Journal

Peer-Reviewed Journal-Equivalent to UGC Approved Journal

A Multi-Disciplinary Research Journal

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8. Kalam, A.P.J.A. (2013). *Ignited Minds: Unleashing the Power Within India*.
 9. Gandhi, M.K. (1957). *The Story of My Experiments with Truth*.

**IMPACT OF TRAINING AND DEVELOPMENT ON SKILL ENHANCEMENT****NIPPUN SHARMA**

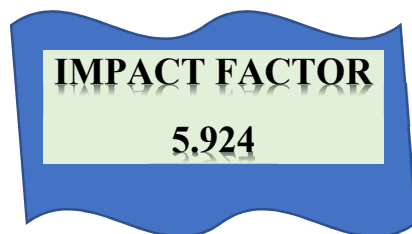
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DOI<https://doi.org/10.5281/zenodo.18055252>**Abstract**

Training and development have become important components for enhancing employee skills and improving organizational performance. There occur structured training and development programs on employee skill enhancement across organizational structure and How the different forms of training such as on the job training, technical training, soft skills training, E- learning which contributes to improve competencies, productivity and job satisfaction. Regular training significantly enhances employee skills, Rises confidence and positively affects overall organizational effectiveness. Investment in training and development is a strategic tool for building a competent workforce and sustaining competitive advantage.

Keywords:- Training, Skill development, Organization.

INTRODUCTION:-

Training is a systematic process of improving employees knowledge, technical skills, and abilities required for their current job. It focuses on short term goals and helps employees perform their tasks more efficiently.

Development is a long term educational process aimed at preparing employees for future roles and responsibilities. It focuses on career growth, leadership abilities, and personal improvement.

Through the training and development task, employees learn new methods, technologies, and procedures which then results in better productivity. Regular training updates employees with the latest trends, technical skills. Employees feel valued and motivated. Well trained staff make fewer mistakes, improving quality and safety. Development programs build leadership qualities and help



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with promotions and role expansion with performing duties. Soft skill development involves improvement in communication, teamwork, problem solving, time management, leadership. Employee can build confidence, creativity and decision making abilities. Despite organizations investing in training and development, many employees report inadequate skill enhancement due to ineffective training design, insufficient follow up, and lack of practical applicability. There is a need to evaluate how well training programs translate into actual skill improvement. It can be needed to analyze the effectiveness of training and development programs, to measure the level of skill enhancement among employees after training, to identify challenges in implementing training programs, to determine the relationship between training quality and employee performance.

In today's competitive business environment, organizations invest in structured training programs to upgrade employees technical, managerial, and interpersonal skills. Effective training helps employees adapt to technological changes, improve job efficiency, and contribute better to organizational goals. There is a need to understand that training programs truly improve employee competencies and how they contribute to workplace performance.

Training and development programs apply to private, public, manufacturing or service sector organizations. It supports HR managers in planning better training strategies and contribute to academic research in HRM and organizational behaviour. Training quality significantly influences employee motivation and performance. Training effectiveness depends on program design, delivery methods, post training support. Overall it emerges as strategic tools that build a competent, adaptable, and future ready workforce.

Skill enhancement refers to the continuous process of improving an individual's abilities, knowledge and competencies to perform tasks more effectively. Today's rapidly changing work environment, skill enhancement has become essential for personal growth and career development also with organization success. Skill enhancement not only helps individuals stay competitive in their careers but also enables them to meet future challenges with confidence and efficiency.

CONCLUSION:-

The title suggests that effective training and development programs significantly enhance employees' skills. Organization that provides regular, high quality training observe improved performance, higher job satisfaction, and better productivity. It will reflect with the performance of employees and overall growth and development of an organization results. Employees who receive regular and relevant training exhibit improved knowledge, stronger job related abilities, and increased confidence in performing tasks. Organizations which follow regular training and development programs for employees experience reduce gaps in performance, stronger employee



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engagement, and higher retention levels. This is a vital organizational investment for achieving efficiency and long term success.

Employees become more efficient, confident, self motivated, capable of handling present and future challenges. Enhanced skills means better job performance and increased organizational output. Skilled employees adapt quickly to changes like new processes, Digital tools, market trends. There occur technical skill enhancement in which employees become proficient in new technologies, machinery, software, job performance. Training and development programs make increasing the career growth and opportunities of the employees or for the one who need to start a job.

REFERENCES:-

1. Armstrong, M.(2014). Armstrong's Handbook of Human Resource Management Practice(13th ed.)
2. Dessler, G.(2020). Human Resource Management(((16th ed.). Pearson.
3. Gupta, C.B.(2017). Human Resource Management. Sultan chand and sons.
4. World Economic Forum.(2020). The future of jobs of job report: skills and workforce transformation insights.

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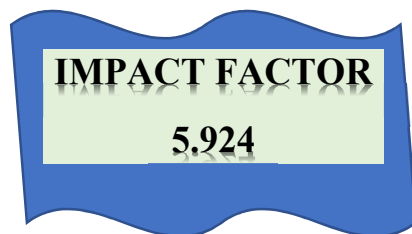
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1. Armstrong, M.(2014). Armstrong's Handbook of Human Resource Management Practice(13th ed.)
2. Dessler, G.(2020). Human Resource Management(((16th ed.). Pearson.
3. Gupta, C.B.(2017). Human Resource Management. Sultan chand and sons.
4. World Economic Forum.(2020). The future of jobs of job report: skills and workforce transformation insights.



Translated Men and Women : Cultural and Social Negotiation in Postcolonial Literature in English

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Abstract

Anita Desai in her novels deals with various kinds of human relationship and shows the contradictions inherent in tradition and modernity, scientific ideas and superstitious beliefs, the dowry, debts and social humiliations, karma and fate, the social disintegration and their effects on the families.

The problems of man and woman occupy the central place in her novels Maya, the chief protagonist, in Cry the Peacock apparently is an example of the disintegrated vision of human relationships. Even the title of the novel, Cry, the Peacock, is suggestive of it. Maya, who symbolizes the pangs of the peacock mating, narrates the secrets in the following lines.

Do you not hear the peacocks call in the wilds? Are they not blood-chilling, their shrieks of pain? "Pia, Pia", they cry "Lover, Lover Mio, mio-I die I die". They spread-out their splendid tails and begin to dance, but, like Shiva's their dance, knowing that they and their lovers are all to die When they have exhausted themselves in battle. they will mate. Peacocks are wise. The hundred eyes upon their tails have seen the truth of life and death, and know them to be one. Living, they are in love with life. "Lover,

Lover", You will hear them cry in the forests when the rain clouds come. "Lover, I die"....(1)

Key words :- Contradictions, Humiliations, Disintegration, Splendid, Exhausted

The mating, the crying and the yearning for the male peacock this dance symbolically reveals the importance of love in human relationship. The concept of love therein is linked metaphorically with the traditional myth of Siva's.

This dance is symbolic of an apocalypse that leads to the perfect cessation of all human desires and bondages except a yearning to know the hidden secret of life and death.



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Maya, the daughter of a lawyer, passes a rich and prosperous childhood, and for the sake of her father, she marries an over-aged man who happens to be a friend of her father.

As there is a disparity of living standard between the two families, this marriage creates a wider chasm in the relationship of the couple. The family of Maya champions human values, rights and the freedom of mutual discussion upto a level of dissension, while in Gautama's family "one did not speak of love, far less of affection one spoke they spoke of discussion in parliament, of cases of bribery and corruption revealed in govern-ment.(2)

Maya's marriage with Gautama is an arranged marriage. As a Brahmin girl, she has heard much about "fate", "astrology" and "palmistry", but for Gautama, who is "no Brahmin and no traditionalist", these are the words "alien from birth". (3) Gautama laughs at Maya whenever she talks about horoscope, past karmas and palmistry. He regards these matters as the property of a traditionalist. He thinks of them as barriers which affect "our everyday lives".(4)

Maya hates Gautama for his authoritarian approach to life, and this develops deeper differences between them while living under the same roof of a house: "They only know how to eat and how to mate. No horoscope for that. But our lives are more complicated".(5) Their difference is the difference of a sentimental woman and an unsentimental man.

Gautama, as the text reveals, stands for all that belongs to the mental level of human approach, while Maya yearns to follow the call of her heart. Anita Desai has wonderfully analysed these two characters in the following lines.

Gautama was not a man to whom confession of the heart could easily be made of the mind, yes, readily, as soon as the idea had formed, sifted and settled into coherence, But of the heart-no, it was of no use.

Maya's memory of the dead dog. Toto, makes Gautama to laugh at her. Being sensitive to each happening in life, she regards the death of Toto as a prognostication for an ill-omen to her family: but Gautama does not believe in such things. The entire visionary approach of the novelist envisages a slash between tradition and modernity through Maya and Gautama.

Maya always remembers the prophecy of an astrologer that her marriage is going to end in its fourth year, with the death of either wife or husband. As the astrologer proves true in his prediction of her brother, she thinks of it seriously. She is concerned with the thought of death. Whenever she is alone and isolated, she recalls the prediction of the astrologer:

The astrologer, that creeping, spreading sly magician of my hallucinations-no, of course they were not hallucinations. Arjuna had proved them to me, and yet could they be real?-had never said anything to suggest that it was I who would die young, unnaturally and violently, four years after



my marriage.... He had only emphasized that this great toll that fate would take, would be taken after my marriage.

She believes in the forecast and thinks that either of the two will lose life. She desires to possess the body and mind of her husband. Whenever she fails in the fulfilment of her emotional intensity from Gautama as a husband, she becomes neurotic and feels as if her nervous system had broken down. She is sometimes so surrounded by her morbid and melancholy inertia that in her loneliness she perceives a bizarre world of dreams that turns into nightmare, She now sees the "purple shadows of a dreadful night".

The coldness and unsentimentality of her husband leave her alone for analysing and dissecting the deeper Impulses of her mind. Loneliness breeds in her a habit of procrastination. She tries to ease her tension in human relationship. Maya recites a shloka of the Bhagavad-Gita to stress the significance of the calm of mind and steadfast wisdom. Here is this shloka from the Bhagavad-Gita:

He whose mind is not agitated in calamities and who has no longing for pleasure, free from attachment, fear and anger, he indeed is said to be of steady wisdom. He who is free from all attachment and neither rejoice on receiving evil, his wisdom is well established.

In fact, her failure to have physical love of her husband creates in her a philosophizing attitude in life. Even the philosophical principles do not comfort her inner distress. The love professed in the Gita is something different from the love she aspired to. Like Sita in *Where Shall We Go This Summer?*, Maya opts for an ideal love, yet the physical love does not spare her psyche untouched. She complains to Gautama against his unsentimental behaviour towards her:

"You've never loved. And you don't love me". Gautama is jealous of her philosophizing nature, and reminds her of the shloka of the Bhagavad-Gita in response to her complaints. It distresses her and she once again complains against his dispassionate attitude towards her. Maya expresses her grievances thus: "Love has no importance for you. It is merely attachment. "

Yet another factor creating a void in human relationships (as between husband and wife) is Maya's prosperous and loving childhood. In Desai's fiction, the protagonists' search comforts their distress through nostalgia.

Maya is no exception to it. This way, the novelist unites time past with time present. Maya says to Gautama, "I had the happiest childhood. They were my happiest times." philosophizing nature of Maya leaves an infectious effect on Gautama. He also begins to philosophize the questions of Maya thus that life is "an aura that passes through a continual cycle, passing from day to night, from manifest to the unmanifest into the manifest again".



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He teaches Maya about the rebirth of human soul again and again. He quotes the sayings of the Upanishads and stresses on the inseparable link between the present and the past karmas. He thus shares the visionary reflections of Maya for linking the past with the present in order to form an impression of the Absolute or a consciousness of the Timeless.

To think to think that we are to pay, in this life, for what we may have in a past one, to think that we may have to pay horribly, oh, horribly, for something terrible, something terrible, that we might-have done it is terrible.

City works in an organic form in the novels of Anita Desai. In this novel, too, the city affects the plan of the character. Maya's brother, Arjuna, is obsessed by the city-sensibility. He works for the Quit India Movement in a city, and after the country's freedom runs away from there, and comes to New York. Here he works in a canning factory and fights for "the Negro cause. "

Maya with all her social rebuffs and domestic hardships delves in her unconscious mind where she finds only the word 'death' ingraved. This creates a tragic vision of life in her. The prophecy of the astrologer pierces her mind deeply. Everything unsuitable to her mind becomes an ill-omen to her: As I threw myself on the chair before the dressing table, crushing bottles and posies between my fingers, that echo was transformed into the rhythm of drum beats ... There is something weird about me now where ever I go, whatever I see whatever I listen to has this unnaturalness in it. This is insanity. But who, what is insane ? I myself? or the world around me?

Her question indicates the negative approach to life. The beating of drums' is symbolic of the tension in her nervous system due to fear of death.

Her constant procrastination makes her inert. Sometimes. she like Hamlet, thinks of a life after death. She is a deserted and love-lorn lady. She yearns for human love. The departure of Gautama's mother and sister teases and baffles her. She once again realizes her isolation and loneliness. She aspires to be hugged by her husband. But the unsentimental and cold behaviour of her husband disappoints her.

And I yearned, yearned for her to hold me to her bosom. I could not remember my own mother at all. My throat began to swell with unbearable self-pity. I would cry, I know it in a while, and dreaded it, in their sane presence. 'Please, I whispered'.

In this passage, the last word "please" is expressive of the inner vision of Maya. As a love-lorn lady, Maya wishes that her mother-in-law should stay with her. The word "please" reflects her helplessness in the human world.

Maya represents the pangs of a modern sensitive lady. She questions Gautama about the existence of a man after life: "You do believe in an after life, Gautama? In the permanence of one's soul, and the resurrection of one's body, in different forms ? No matter how one dies?"



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Horror-stricken, she experiences nervousness in her psyche. She is baffled with the gradual growth of insanity in her. The images of "cat" and "lizard" symbolize her gloomy vision of life. The rush of negative emotions so overpowers her that it affects her vision of life too. Her world of memories becomes a world of fantasy and deception:

If only I could discover now what I had pursued so long along roads of treacherous memory, of great love, of great despair, for I loved too much, too many. Loved?... The word shot down the long black vacuum and struck the very bottom of the well. Then the echo rose, spread, in slow ripples, and struck the sides, resoundingly. Once again that word rang in my mind, clear as a drum-beat on a waiting night.

Here, the adjective-noun phrase "a waiting night" refers to the negative vision of Maya and her thought of death. She develops an indifferent attitude towards life. She wishes a deliverance, a moksha from all kinds of worldly cares and anxieties.

Anita Desai in her cosmic vision interlinks time and memory together for an integrated vision of life. In fact, time past can be defined only through memories. To recollect the past memories is to link unconscious and conscious states of the mind.

This linking device of time past with time present signals a new hope for future. This psychological merger of the times in a flux creates a vision of wholeness. In the novel of Anita Desai one finds an "obsessive involvement with the characters' past as key to their consciousness, their life".

Refernce

1. Desai, Anita, Cry, The Peacock. London, Peter Owen Ltd. 1963 New Delhi Orient Paperbacks 1995, p. 48.
2. Desai, Anita, Games at Twilight A collection of short stories London William 1978, p 69.
3. Desai, Anita, Calcutta Kaleidoscope. The Illustrated weekly of India, 1958, p 86
4. Budholia O.P., Anita Desai, Vision and Technique in Her Novels, B.R. Publishing Delhi 2010, p 84.
5. udholia O.P., Anita Desai, Vision and Technique in Her Novels, B.R. Publishing Delhi 2010, p 89.

**Cross Cultural acculturation and assimilation in Bharati Mukherjee's Jasmine****Shailendra Rajput**

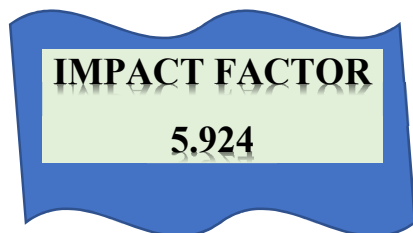
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DOI<https://doi.org/10.5281/zenodo.18070537>**Abstract**

Mukherjee's first two novels *The Tiger's Daughter* and *Wife* bring out the cross cultural journeys of the protagonists and their quest for identity.

Bharati Mukherjee has been described as "the foremost chronicler of the multicultural New America" (Nicholson, 1990). Cross cultural confrontations constitute the core theme of her works. As a fiction writer her continuing concern has been to deal with the life of South Asian expatriates/immigrants in USA and Canada and her writings reflect the process of acculturation and assimilation in the journey from expatriation and immigration.

Her narratives address issues of identity as they intersect with culture, gender and race. The present paper focuses exclusively on her third novel *Jasmine*, which chronicles the movement of an Indian woman from India to the United States and what strategies of survival she adopts as she relocates herself in a new and alien world.

Keywords: Diaspora, assimilation, identity crisis, expatriate.

Mukherjee has changed citizenships and lived in various cultural milieus and consequently it can be said that she has passed through several different phases as a writer. Firstly, she lived as a colonial, then a National subject in India and then she led a life of exile as a post-colonial Indian in Canada. Finally she converted herself into a celebrity immigrant and moved to the United States.

The blending of these various lives and experiences is manifested in her work and constitutes an important part of contemporary immigrant literature. As a fiction writer, her continuing concern has been to deal with the life of South Asian expatriates/immigrants in USA and Canada and her writings reflect the process of acculturation and assimilation in the journey from expatriation to immigration.



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Books, internet, sources from reference books, research articles from journals, dissertation and interviews have been used for the research. Qualitative research methodology is applied to the research. It aims at gathering an in depth understanding of human behaviour and the reasons that govern that behaviour.

All diasporic deliberations come to be shaded by the ideology of post colonialism. Diasporic literature is replete with issues related to locations, movements, crossing borders, identities, original home and adopted home etc. Both Edward Said and Gayatri Spivak emphasize culture and imperialism as the distinguished factors that influence post-colonial literature. Edward Said defined Orientalism as “a western style for dominating, restructuring, heaving authority over the orient”. Gayatri Spivak expressed her views about subaltern. ‘subaltern’ means the colonized/oppressed subject whose voice has been silenced. Both colonialism and patriarchy resulted in the oppression of women and it is really difficult for the subaltern to articulate her point of view and “there is no space from where the subaltern subject can speak.”

The present paper focuses exclusively on her third novel Jasmine which was published in 1989. This novel was written in the third phase of Mukherjee’s life when she overcame the nostalgia for the land of her birth and appreciated the new opportunities in the host country. This novel was selected for two reasons. First, the protagonist of this novel is a first generation immigrant. This novel is the story of a young Indian woman who experiences cultural conflict both in and out of her own culture. The agony of the immigrants in the host country is a major theme of this novel. Secondly, this novel was written at a stage of her life when Mukherjee had succeeded in defining her own identity as an immigrant and an American. Jasmine contains the well-developed views of Mukherjee on South Asian diaspora.

Bharati Mukherjee’s novel Jasmine traces the story of the eponymous heroine in her American odyssey. The conflict between “Occidental” and “Oriental” cultures and its impact in the life of the protagonist is expressed beautifully in this novel. Jasmine, the Hindu widow, who leaves India for the USA after her husband’s death in a terrorist attack, is found to undergo a cross-cultural metamorphosis in her fractured life as an immigrant. From the beginning of the novel the novelist gives the readers a hint of Jasmine’s attempt to break out of the paradigms of traditional Indian culture. The opening chapter of the novel starts with the words:

Lifetimes ago, under a banyan tree in the village Hasnapur, an astrologer cupped his ears-his satellite dish to the stars and foretold my widowhood and exile. I was only seven then, fast and ventures on scabrous-armed from leaves and thorns, (Mukherjee, Jasmine 3)

The astrologer goes on to allude to the story of Behula from Hindu mythology. Here Bharati Mukherjee is not just exorcizing the content of the novel through these allusions. She is defining



the mental space of her seven-year-old protagonist. Jasmine psyche is formed by the stories that her mother recited to her of “the holiest sages” the “third eye” they develop in the middle of their foreheads to peer “out into invisible world” (Mukherjee, Jasmine⁵), and their likes. No doubt Jasmine’s mind is spiritually inclined even though she challenges and revolts against customs and traditions. Her decision to fulfil her husband’s aspiration of going to America is guided by her spiritual beliefs as she acknowledges:

I had not given even a day’s survival in America a single thought. This was the place I had chosen to die, on the first day if possible. I would land, find Tampah, walking there if necessary, find the college grounds and check it against the brochure photo. Under the very tree where two Indian boys and two Chinese girls were pictured, smiling, I had dreamed of arranging the suit and twigs. The vision of lying serenely on a bed of fire under palm trees in my white sari had motivated all the weeks of sleepless half-starved.

The village girl from Hasnapur survives in America. She does not immolate herself because after landing on the Gulf Coast of Florida she is raped and in turn she murders her rapist. This defiles her mission and death is denied her: “Lord Yama, who had wanted me and whom I’d flirted with on the long trip over, had now deserted me” (Mukherjee, Jasmine 120). The transformation of Jasmine from the archetype of sati to that of Goddess Kali as she towers over the man, who violated her chastity, with blood oozing out from her sliced tongue, is a dramatic and violent imagery of self-assertion. The critic Nagendra Kumar notes that Jasmine’s “decision to kill herself first, is a decision of a woman who lives for her deceased husband but the woman who kills Half-Face is prompted by her will to live to continue her life” (Kumar 110). Jasmine’s journey from Punjab through Florida, New York and Iowa to California depicts the various stages of her exilic condition. But these exilic locations are also representation of the spiritual states of her mind. Jasmine assumes different mythological avatars in her various exilic states:

“I have been reborn several times” (Mukherjee, Jasmine 126). She shuttles between identities: “Jyoti [was] the Sati-Goddess, Jasmine lives for the future” (Mukherjee, Jasmine 176). She emancipates herself from being an illegal immigrant into a self-assured American woman but her spiritual call comes from India: “I am caught between the promise of America and old-world dutifulness” (Mukherjee, Jasmine 240).

Not only Jasmine even the other characters in Jasmine are all exiles, expatriates, wanderers and people on the move, casting off old lives easily as a snake sheds its skin. They are Third World refugees fleeing poverty and oppression, but they are also Americans moving from Coast to Coast, small towns to cities, exchanging one partner for another, in search of a dream that always seems to elude them. A feeling of dislocation, displacement and rootlessness is a heavy price they must



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pay for the infinite freedom and possibilities that America offers. Everyone in Jasmine appears to be reeling from the speed of changes overpowering them.

Mukherjee has explored her theme with its many nuances. The transformation of Jasmine from a semi-educated Punjabi rustic to an American is convincing. Perhaps Mukherjee's purpose of bringing to the contemporary American fiction, the reality of the experiences of the floating elements in American society, the immigrant who are trying to establish themselves is fulfilled.

It is not easy to overcome the "aloofness of expatriation" or disunite oneself from the roots and tradition of the culture that one comes from. Jyoti, Jasmine, Jase and Jane, who make a life time for every name, look like a possibility for every enthusiastic immigrant. Thus caught between the two cultures of the east and west, past and present, old and new, Jasmine constantly "shuttles" in search of a concrete identity.

References

1. Kumar, Nagendra. The Fiction of Bharati Mukherjee A Cultural Perspective. Atlantic Publishers and Distributors, New Delhi. 2001 p. 89.
2. Mukherjee, Bharati. Jasmine. Grove Widenfield, New York. 1989. p. 102.
3. Nicholson, D. Mukherjee Settlesdown. Connoisseur. Jan-Nov, 1990. p. 136.
4. Said, Edward W. Orientalism. Random House, New York. 1978. p. 109.
5. Spivak, Gayatri Chakravorty. Toward a History of the Vanishing Present. Harvard University Press, Cambridge. 1999. p. 114.

**डॉ. हंसादीप की कथाओं में स्त्री-विमर्श के मुखर स्वर: एक विश्लेषणात्मक “अध्ययन”**

डॉ. वंदना चराटे

सारांश

सहायक प्राध्यापक हिन्दी

भेरूलाल पाटीदार शासकीय महाविद्यालय

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हिन्दी साहित्य में स्त्री-विमर्श समकालीन समय का सर्वाधिक चर्चित विमर्श है। स्त्री की स्थिति, उसकी पहचान, स्वाधीनता संघर्ष, देर - राजनीति, घरेलू हिंसा, पितृसत्ता और अस्तित्व चेतना जैसे प्रश्न आज के साहित्य के केन्द्र में हैं। डॉ. हंसादीप की कथाएँ स्त्री जीवन की इन्हीं बहुआयामी वास्तविकताओं को अत्यन्त संवेदनशील, यथार्थपरक और प्रतिरोधी स्वर में अभिव्यक्त करती हैं। उनके कथा साहित्य में स्त्री केवल उत्पीड़ित ही नहीं बल्कि प्रतिरोध करती हुई, विकल्प तलाशती हुई और अपनी स्वतंत्र पहचान गढ़ती हुई दिखाई देती है। प्रस्तुत शोध-पत्र में डॉ. हंसादीप की प्रमुख कहानियों (चयनित) के आधार पर स्त्री-विमर्श के मुखर स्वरों का विश्लेषणात्मक अध्ययन किया गया है। शोध द्वारा निष्कर्ष प्राप्त हुआ कि डॉ. हंसादीप की कथाओं में स्त्री-विमर्श एक अत्यन्त मजबूत, संवेदनशील और प्रतिरोधी रूप में उपस्थित है। उनकी कथाएँ न केवल स्त्री जीवन की पीड़ा को उजागर करती हैं वरन् उनके संकल्प, संघर्ष और आत्मनिर्भरता की चेतना को भी सामने लाती हैं।

बीज शब्द :-स्त्री-विमर्श, पितृसत्ता, देह - राजनीति, मानसिक शोषण, प्रतिरोध ।

प्रस्तावना :-

भारतीय समाज में स्त्री की स्थिति सदियों से पुरुष प्रधान समाज द्वारा निर्धारित की गई है। साहित्य इस स्थिति को चुनौती देने, प्रश्नांकित करने और परिवर्तन की चेतना जगाने का महत्वपूर्ण माध्यम रहा है। हिन्दी

कथा साहित्य में सौंदर्यबोध, करुणा और त्याग से बढ़कर स्त्री के स्वत्व, अधिकार, अस्मिता और विद्रोह की आवाजें मुखर हुई हैं।

डॉ. हंसादीप समकालीन प्रवासी हिन्दी साहित्य की कथाकार हैं, जिनकी रचनाओं में स्त्री की पीड़ा नहीं बल्कि उसका संघर्ष और प्रतिरोध केन्द्र में है। वे उन अनकहे और अनदेखे अनुभवों को उजागर करती हैं, जो घर की चुप्पियों और समाज की चोरी-छुपी संरचनाओं में केन्द्र रहते हैं।

शोध के उद्देश्य :-

प्रस्तुत शोध पत्र हेतु शोधार्थी द्वारा निम्नांकित उद्देश्य निर्धारित किये गये

1. डॉ. हंसादीप की चयनित कहानियों में स्त्री-विमर्श के प्रमुख स्वर पहचानना।
2. उनकी चयनित कहानियों में स्त्री के संघर्ष, प्रतिरोध और अस्मिता का विश्लेषण करना।
3. पितृसत्तात्मक संरचनाओं के विरुद्ध स्त्री पात्रों की चेतना और सक्रियता को रेखांकित करना।
4. स्त्री-पुरुष सम्बन्धों, देह - राजनीति तथा मानसिक शोषण के यथार्थ को समझना।
5. डॉ. हंसादीप के कथा साहित्य को व्यापक स्त्री-विमर्श के संदर्भ में स्थापित करना।

संदर्भित साहित्य का अध्ययन :- पूर्व में किये गये इस विषय पर शोधों का वर्णन निम्नांकित हैं।

1. गिरकर, दीपक : डॉ. हंसादीप के कथा साहित्य में सामाजिक वैयक्तिक, मानव संवेदना एवं नारी नियति का यथार्थ चित्रण (शोध आलेख) में कथित है कि हंसा जी की कहानियाँ विभिन्न सामाजिक और व्यक्तिगत परिस्थितियों के संदर्भ में भारतीय नारी की नियति को दर्शाती हैं। उन्होंने परिवार और समाज में नारी के समग्र तस्वीर को एक अलग आयाम दिया है। महिलाओं के मानस के व्यक्तित्व को पंगु बनाने वाले भेदभावपूर्ण सामाजिक-सांस्कृतिक मूल्यों, दृष्टिकोण और व्यवहार को उनकी कहानियों और उपन्यासों में उजागर किया गया है। इनके कथा साहित्य में सामाजिक चेतना, मानवीय संवेदना एवं नारी नियति का यथार्थ चित्रण उभर कर सामने आता है।" (1)

2. समीक्षा मधु संधु, प्रवासी साहित्य हंसादीप का कहानी साहित्य, पाण्डे नूतन, पाण्डेय दीपक (पुस्तक: 7 कहानी संग्रहों में प्रकाशित कहानियों पर 16 शोध आलेख) इनमें विभिन्न शोध आलेख प्रस्तुत किये गये हैं।

<https://www.retang.com>, डॉ. हंसादीप के कथा साहित्य में सामाजिक चेतना मानवीय संवेदना एवं नारी नियति का यथार्थ चित्रण, ISSN : 2475-1359, पिटर्स बर्ग अमेरिका से प्रकाशित, सेतु अगस्त 2024

- डॉ. हंसादीप की कथा दृष्टि :- डॉ. हंसादीप की कथादृष्टि में स्त्री न तो आदर्शवादी देवी है और न ही मात्र पीड़िता - वह एक विचारशील मनुष्य है, जो अपनी स्थिति को समझती है और आवश्यक होने पर उसका प्रतिरोध भी करती है। यही दृष्टि उनके साहित्य को स्त्री-विमर्श के संदर्भ में विशेष महत्व प्रदान करती है। स्त्री-विमर्श के स्वर को मुखर करती उनकी कुछ चयनित कहानियों का विश्लेषण इस प्रकार है।-

1. उसकी औकात :- इस कहानी में शिक्षा जगत के उस कड़वे सच की कथा है, जहाँ हैली जैसी लोकप्रिय युवा अध्यापिका के खिलाफ विभागाध्यक्ष मोर्चा खोल लेते हैं। हैली का आत्मविश्वास और ज्ञान सबको चुभ रहा था, तो उसके गुण, अवगुण की सूची में डाले जाते हैं, समूचा विभाग एक ओर, मिस हैली दूसरी ओर जंग शुरू हो गई। कुर्सी अकेली नहीं होती, उसके चार पैर होते हैं, हत्थे, मजबूत पीठ भी, हैली कुर्सी की ताकत को पहचानती थी, लेकिन यह भी जानती थी कि हिम्मत की आवश्यकता है, किसी डर कर नहीं। एक चीटी ने हाथी से टक्कर ली थी। जीत हैली की हुई तो अपमानित विभागाध्यक्ष का तजुर्क कहता था कि कहीं न कहीं तो इस हार का बदला लेंगे। लेकिन फिर उन्हें मुंह की खानी पड़ी थी, उनकी मेज पर मिस हैली का त्याग पत्र रखा था। वह जीतकर, नौकरी छोड़कर जा रही थी। इस कहानी में स्त्री-विमर्श का स्वर इस प्रकार से मुखर है। यहाँ नौकरी में संघर्ष, सहयोगी को नीचा दिखाने की इच्छा, यहाँ मानवीय मूल्य शून्य होने पर भी नायिका का आत्मबल, आत्मविश्वास कम नहीं होता, उसकी जीत फिर त्यागपत्र, स्त्री की मजबूती दर्शाते हैं।
2. पन्ने जो नहीं पढ़े :- इस कहानी में दो स्त्रियों को अलग-अलग रूप में दिखाया है। इनमें निम्मी जो एक भारतीय नारी के संस्कारों से आभूषित है। पति अध्यापक है, यह सर्व

सामान्य बात है, प्राध्यापक में ज्ञान और संस्कृति का समन्वय होता है। प्रोफेसर को उनके पास आने वाले छात्रों के साथ पत्नी भी सर कह कर बुलाती है। रश्मि जो विनम्र और सुंदर छात्रा है, ज्ञान पिपासा की पूर्ति हेतु सर के पास आती रहती है। उसकी माँ नहीं है, पिता कारोबार के कारण अधिकतर शहर के बाहर रहते हैं, अटूट विश्वास से बेटी को निम्मी के घर छोड़कर जाते हैं, ताकि बेटी का अभ्यास बर्बाद न हो।

एक रात्रि को निम्मी अचानक प्यास लगने पर पानी के लिये आती है तो क्या देखती है कि रश्मि और सर अप्राकृत अवस्था में साथ हैं, तो निम्मी का मोहभंग हो जाता है। अपने बेटे के लिये रश्मि को बहू बनाने का जो सपना था, वह चूर-चूर हो जाता है। बेटा विदेश चला जाता है और किसी विदेशी मेम से शादी रचा लेता है। मोहभंग के बाद निम्मी 'सर' से अलग गाँव में रहकर अपना जीवन बसर करती है। रश्मि भी सर को गुरु दक्षिणा देकर अपनी राह पकड़ लेती है। निम्मी को जब पता चलता है, तो वह कहती है – " 'सर' ने वाकई में वह पन्ने नहीं पढ़े, जो जीवन के सार्थक पलों को पाते हैं। " इस कहानी में नायिका निम्मी कोई लड़ाई-झगड़ा, तूफान खड़ा नहीं करती, चुपचाप 'सर' को छोड़कर गाँव चली जाती है, स्त्री-विमर्श का यहाँ एक मौन प्रतिरोध का स्वर मुखरित हुआ है।

3. पाँचवी दीवार : - इस कहानी में पाँचवी दीवार सुमन रूपी है, जो राजनीतिक पार्टी को जीताकर सर्वसर्वा हासिल करना चाहती है, वह शिक्षिका है और विद्यालय की भाँति यहाँ भी अनुशासन एवं नियंत्रण करके देश को सुचारु रूप से गठित करने का उसका सपना है। इस प्रकार पाँचवी दीवार के रूप में वह सशक्त बनना चाहती है। इस कहानी में समता-सुमन आशावान है और दृढ़ भी। इस कहानी में स्त्री-विमर्श के स्वर घर-परिवार के बाहर राजनीतिक क्षेत्र में मुखर है।
4. एक मर्द एक औरत :- इस कहानी में हंसा जी ने समाज की भयावह त्रासदी को रेखांकित करती, पारिवारिक आंतरिक रिश्तों की पवित्रता पर अंगुली उठाते समाज की सोच और कुंठा पर प्रहार किया है। दो रिश्तों की पवित्रता का निर्णय कैसे कोई तीसरा आदमी कर सकता है ? यहाँ भी हंसा जी स्त्री-विमर्श में पवित्रता के स्वर को मुखर करती है।

इसी क्रम में खिलखिलाती छूप और 'हाशिये से बाहर' दोनों कहानियों को बुनने में हंसा जी ने नारी - मन को खूब उड़ान दी है। इसी संदर्भ में 'शून्य के भीतर' कहानी का उल्लेख भी आवश्यक है। यह कहानी श्रीलंका की कौमुरी से कुमुडी बनी महिला की मार्मिक कहानी है, जिसमें दिखाया गया है कि कुमुडी अस्पताल में नौकरी करते हुये अपने कन्धों की क्षमता से बेखबर वह एक के बाद एक जिम्मेदारी लेती रहती है। अपने भाई-बहनों का पालन-पोषण करती है, उन्हें लायक बनाती है। बड़े होने पर सब भाई - बहन अपने रास्ते चले जाते हैं, रह जाती है अकेली कुमुडी। उसकी दुनिया शून्य हो चुकी है, वह अपने एकाकीपन को दूर करने के लिये गिलहरी, बिल्ली आदि जानवरों को अपना साथ बना लेती है। मरने के बाद भी वह जानवरों से बोलती रहती है फोटो में कैद होकर। इस कहानी में हंसा जी ने कुमुडी के पशु प्रेम से एकाकीपन का हल मुखर किया है। अनुकरणीय आदर्श प्रस्तुत किया है।

डॉ. हंसादीप की कहानियों में स्त्री अपने अस्तित्व को लेकर सजग दिखाई देती है। वह केवल पत्नी, माँ या बेटे की पारम्परिक भूमिकाओं में सीमित नहीं रहना चाहती बल्कि एक स्वतंत्र व्यक्ति के रूप में पहचाने जाने की आकांक्षा रखती है। उनके स्त्री पात्र अपने भीतर यह प्रश्न उठाते हैं कि क्या मेरा मूल्य केवल रिश्तों से तय होगा या मेरी अपनी पहचान भी है। यही आत्मबोध स्त्री-विमर्श की आधारशिला है। डॉ. हंसादीप की कथाओं में पितृसत्ता कोई अमूर्त अवधारणा के रूप में नहीं मिलती है, बल्कि रोजमर्रा के जीवन में मौजूद व्यावहारिक सत्ता है जैसे पुरुष का निर्णयकर्ता होना, स्त्री की चुप्पी को उसका कर्तव्य मान लेना, घरेलू श्रम को महत्व न देना आदि। इन स्थितियों के प्रति उनके स्त्री पात्र मौन स्वीकृति नहीं दिखाते, वे प्रश्न करते हैं, असहमति दर्ज करते हैं और कई बार मानसिक स्तर पर विद्रोह भी उनके स्त्री पात्र करते हैं। यह प्रतिरोध कभी खुला होता है तो कभी भीतर-ही-भीतर पनपते हुए विस्फोटक हो जाता है।

स्त्री-विमर्श के मुखर स्वर हंसा जी की कथाओं में घरेलू जीवन के यथार्थ को उजागर करते हुए उनके स्त्री पात्र, जिनके त्याग को स्वाभाविक व अनिवार्य मान लिया जाता है, वे अपने घर-परिवार, दफ्तर, राह, व अन्य स्थानों पर भावनात्मक उपेक्षा, संवादहीनता, मानसिक दबाव, निरन्तर जिम्मेदारियों के बोझ से जूझते हुए दिखाई देते हैं। उनकी पीड़ा अक्सर दिखाई देती है, परन्तु हंसा जी उसे शब्द देकर भावों की लड़ी में गूँथकर समाज के सामने लाती हैं, यही उनके स्त्री-विमर्श का संवदेनशील पक्ष है। उनकी 'पति परमेश्वर' कहानी के कुछ वाक्य - "उसकी पीली-पीली में आँसू", स्त्री जीवन का ऊहापोह कि एक ओर तो वह अपने शराबी पति के

अत्याचारों से तंग आकर उसके मर जाने की इच्छा रखती है – “मैंने तो कहती हूँ कि यह मर जाये तो अच्छा रहे। दारु पीता है फिर भी मरता नहीं।” वहीं दूसरे ओर उसके लिये मिठाई ले जाना चाहती है ‘मेरा मन नहीं मानता बाई सा, मिठाई देख के खुश तो होगा थोड़ा। बिचारे को कहाँ खाने को मिलती है।” इस प्रकार हंसा जी प्रत्येक पक्ष से स्त्री के मनोभावों को प्रभावी रूप से व्यक्त करती हैं।

लेखिका की कथाएँ यह स्पष्ट करती हैं कि शोषण केवल शारीरिक ही नहीं होता, व्यंग्य, उपेक्षा, निर्णयों से वंचित रखता, भावनाओं को महत्व न देना ये सभी मानसिक हिंसा के रूप हैं। उनके सत्री पात्र हिंसा को पहचानने व भोगते नजर आते हैं, वे उनके प्रभाव को भी समझती हैं, यही समझ आगे चलकर अपने प्रतिरोध के स्वर मुखर करती है और यही स्त्री - विमर्श है। हंसादीप की कथाओं में आर्थिक पक्ष भी स्त्री-विमर्श का महत्वपूर्ण आयाम बताया गया है। स्त्री की आर्थिक निर्भरता को उसकी असुरक्षा का कारण माना गया है, क्योंकि आर्थिक आत्मनिर्भरता को आत्मसम्मान और स्वतंत्र निर्णय लेने की कुंजी माना जाता है। डॉ. हंसादीप के कथाओं की स्त्रियाँ आर्थिक स्वावलंबन को केवल पैसे कमाने का साधन नहीं, बल्कि स्वतंत्र व्यक्तित्व की नींव मानती हैं। वे अपनी कथाओं में स्त्री-पुरुष सम्बन्धों को भी स्त्री - दृष्टि से पुनर्परिभाषित करती हैं, उनकी कथाओं में विवाह एक पवित्र सम्बन्ध से अधिक एक व्यावहारिक सम्बन्ध है। इसमें प्रेम में समानता और सम्मान की अपेक्षा होती है। मातृत्व भी स्त्री की एक पहचान है, सम्पूर्णता नहीं। यह दृष्टि स्त्री का भावनात्मक गुलामी से मुक्त करने की दिशा में एक मार्गदर्शन है।

डॉ. हंसादीप की कहानियों में स्त्री अक्सर मौन से शुरुआत करती है, पर अंततः उसकी चेतना मुखर होती है। यह मुखरता हमेशा विद्रोह के नारे नहीं लगाती बल्कि स्वयं के लिये निर्णय लेने, अन्याय को पहचानने, आत्मसम्मान को प्राथमिकता देने के रूप में प्रकट होती है। यही स्त्री-विमर्श का आधुनिक व परिपक्व स्वर है। डॉ. हंसादीप की चयनित कथाओं के विश्लेषणात्मक अध्ययन के पश्चात् यह निष्कर्ष प्राप्त हुआ इनका स्त्री-विमर्श अत्यधिक यथार्थपरक है, इनमें भावुकता का अतिरेक नहीं है, मनोवैज्ञानिक गहराई से स्त्री-विमर्श को दर्शाया गया है, प्रतिरोध विद्रोह के रूप में न होकर संतुलित है, स्त्री को अबला न दर्शाकर कर्ता के रूप में प्रस्तुत किया गया है।

डॉ. हंसादीप की कथाओं में स्त्री-विमर्श एक सजग, संतुलित और यथार्थपरक चेतना के रूप में उभरता है। उनके स्त्री-प - पात्र न तो निरीह हैं और न ही अतिवादी विद्रोही। वे परिस्थितियों को समझते हैं, अपने भीतर



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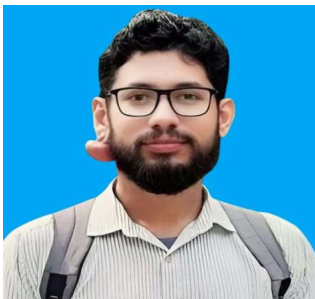
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Impact of Digital Learning Systems on Academic Anxiety and Learning Interest among School Students: A Quantitative Study in Selected Schools of Barrackpore Area, North 24 Parganas, West Bengal

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Abstract

The present quantitative study examines the **impact of digital learning systems on academic anxiety and learning interest among school students** in selected schools of the **Barrackpore area, North 24 Parganas, West Bengal**. A sample of **300 students** from **three primary and three high schools** was selected using stratified random sampling. Data were collected through standardized tools measuring academic anxiety and learning interest (**Spielberger, 1983; Hidi & Renninger, 2006**). Statistical techniques such as **mean, standard deviation, t-test, and correlation analysis** were employed (**Cohen, 1988**). The findings reveal that digital learning systems significantly **enhance learning interest**, while **moderate academic anxiety** persists among students. A **negative relationship** was found between academic anxiety and learning interest, indicating that increased engagement in digital learning reduces anxiety levels (**Bandura, 1997**). The study emphasizes the need for **balanced and learner-friendly digital pedagogy** to promote psychological well-being in school education (**NEP, 2020**).

Keywords: *Digital Learning Systems, Academic Anxiety, Learning Interest, School Students, Quantitative Study*



Introduction

The rapid expansion of digital technologies has brought transformative changes to the teaching–learning process across school education. Digital learning systems, including online platforms, multimedia resources, and interactive educational applications, have increasingly become integral components of classroom instruction. While these systems offer flexibility, accessibility, and enhanced engagement, they also reshape students’ psychological experiences of learning. Among the key psychological factors influenced by digital learning environments are **academic anxiety and learning interest**, both of which play crucial roles in determining students’ academic engagement and achievement (Schunk, Pintrich, & Meece, 2008). Understanding how digital learning systems influence these psychological variables is essential for ensuring that technological integration supports not only cognitive development but also students’ emotional well-being (Creswell, 2014).

Background of the Study

Educational psychology has long emphasized the influence of emotional and motivational factors on students’ learning processes. Academic anxiety has been identified as a major barrier to effective learning, often leading to avoidance behaviour, reduced concentration, and lower academic performance (Spielberger, 1983). Conversely, learning interest functions as a motivational force that sustains attention, encourages active participation, and enhances academic persistence (Hidi & Renninger, 2006). With the increasing adoption of digital learning systems in schools, students’ interactions with learning content have shifted from traditional teacher-centred modes to technology-mediated environments. Research suggests that digital learning systems can both alleviate and intensify academic anxiety depending on their design, accessibility, and pedagogical implementation (Dede, 2014). At the same time, well-structured digital environments have been shown to foster curiosity and interest by providing interactive and learner-controlled experiences (Lei & Zhao, 2016). However, the psychological impact of digital learning systems remains unevenly explored, particularly across different school levels and gender groups (OECD, 2017).



Rationale of the Study

Despite the growing body of research on digital education, much of the existing literature has examined academic anxiety, learning interest, or digital learning systems as isolated constructs. Limited empirical attention has been given to the **combined examination of academic anxiety and learning interest within digital learning contexts**, especially at the school level in the Indian educational setting (Singh & Mishra, 2018). Furthermore, comparative analyses across **primary and high school students** and **gender-based differences** remain underrepresented in micro-level, school-based studies (Kumar & Sharma, 2019). The present study is therefore justified in its attempt to address these gaps by systematically investigating how digital learning systems influence both academic anxiety and learning interest among school students. By focusing on selected schools of the Barrackpore area, the study provides context-specific evidence that can inform locally relevant educational practices and policies (Cohen, Manion, & Morrison, 2018).

Significance of the Study

The findings of this study hold considerable significance for multiple stakeholders in the educational system. For **teachers**, the study offers insights into how digital learning environments can be structured to enhance learning interest while reducing academic anxiety. For **school administrators**, the results provide empirical evidence to support informed decisions regarding the integration of digital learning systems. From a **policy perspective**, the study contributes data that can guide the formulation of student-centred digital education policies emphasizing psychological well-being (American Psychological Association, 2020). Academically, the study enriches the field of educational psychology by linking emotional and motivational variables with digital learning contexts. Additionally, the research holds relevance for **curriculum designers and educational technologists** seeking to develop age-appropriate, psychologically supportive digital learning tools (OECD, 2017).

Statement of the Problem

In recent years, **digital learning systems have become an integral part of school education**, reshaping instructional practices and student learning experiences. While these systems are widely promoted for enhancing accessibility, flexibility, and engagement, their **psychological consequences for learners have not been adequately examined** (Dede, 2014). In particular, **academic anxiety and learning interest**, which are critical determinants of students' academic



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engagement and performance, remain underexplored within technology-mediated learning environments (Spielberger, 1983; Hidi & Renninger, 2006).

A review of existing literature indicates that many studies have focused either on academic anxiety, learning interest, or digital learning systems **in isolation**, without investigating their **combined influence**. Furthermore, **comparative analyses across gender and school level (primary and high school)** are limited, despite evidence that psychological responses to learning vary significantly across developmental stages and between male and female students (Schunk, Pintrich, & Meece, 2008). Additionally, **context-specific, school-based empirical studies in the Indian educational setting**, particularly at the micro-regional level, remain scarce (OECD, 2017).

In view of these gaps, the present study seeks to address the problem stated as:

“What is the impact of digital learning systems on academic anxiety and learning interest among school students, and how do these effects vary across gender and school level?”

Accordingly, the study titled **“Impact of Digital Learning Systems on Academic Anxiety and Learning Interest among School Students: A Quantitative Study in Selected Schools of Barrackpore Area, North 24 Parganas, West Bengal”** aims to generate empirical evidence that can inform psychologically supportive and developmentally appropriate digital learning practices.

Objectives of the Study

1. To examine the level of academic anxiety and learning interest among primary and high school students in relation to the use of digital learning systems.
2. To study the relationship between digital learning system usage and academic anxiety as well as learning interest among school students.
3. To compare academic anxiety and learning interest of school students across gender and school level (primary and high school) in the context of digital learning systems.

Null Hypotheses (H_0)

H_0 : There is **no significant difference** in the level of academic anxiety and learning interest of school students with respect to their use of digital learning systems.

H₀: There is **no significant relationship** between digital learning system usage and academic anxiety and learning interest among school students.

H₀: There is **no significant difference** in academic anxiety and learning interest of school students based on **gender and school level (primary and high school)** in the context of digital learning systems.

Review of Related Literature with Research Gap

Sl. No.	Author(s) & Year	Focus of the Study	Method & Sample	Key Findings	Identified Research Gap
1.	Patra & Chakraborty (2023)	Digital learning and student behaviour	Quantitative; school students	Digital exposure affects behaviour patterns	Gender- and level-wise anxiety analysis absent
2.	Chandra & Lloyd (2021)	Online learning stress post-COVID	Quantitative	Online learning raised anxiety levels	Combined effect on learning interest ignored
3.	Saha & Dutta (2020)	Digital divide and learning	Survey	Unequal access affects engagement	Psychological outcomes not explored
4.	Kumar & Sharma (2019)	E-learning and student interest	Quantitative	Digital learning increases interest	Anxiety variable not examined
5.	Singh & Mishra (2018)	Academic anxiety in Indian schools	Quantitative	Anxiety higher in secondary students	Digital learning context not included
6.	OECD (2017)	Digital learning and	Large-scale survey	Digital tools influence well-being	Lacks micro-level school-based analysis

		student well-being			
7.	Lei & Zhao (2016)	Technology use and student motivation	Survey	Moderate use increases motivation	Academic anxiety dimension missing
8.	Salanova et al. (2015)	Technostress among learners	Quantitative	Technology may cause anxiety if unmanaged	Academic interest not examined
9.	Dede (2014)	Digital learning environments	Experimental	Digital tools improve access and flexibility	Psychological variables like anxiety ignored
10.	Creswell (2014)	Educational psychology research methods	Methodological	Supports quantitative correlational designs	No empirical findings on digital learning impact
11.	Wentzel (2012)	Learning interest and classroom engagement	Quantitative	Interest predicts sustained learning	Impact of digital platforms not studied
12.	Rosen & Smith (2011)	Technology use and student stress	Survey method	Excessive digital exposure increases stress	Did not focus on academic anxiety specifically
13.	Schunk, Pintrich & Meece (2008)	Motivation and interest in learning	Quantitative	Interest enhances engagement and achievement	Digital learning systems were not included
14.	Hembree (1988)	Relationship between	Meta-analysis	High anxiety lowers	Learning interest and

		anxiety and achievement		learning efficiency	technology not considered
15.	Spielberger (1983)	Academic anxiety among students	Quantitative; school students	Anxiety negatively affects academic performance	Did not examine digital learning environments

Research Gap Synthesis

A critical analysis of existing literature reveals that **most studies have examined academic anxiety, learning interest, or digital learning systems in isolation**. While some research has explored the influence of digital learning on motivation or stress, **very few studies have simultaneously investigated the combined impact of digital learning systems on both academic anxiety and learning interest**, particularly in **Indian school contexts**. Moreover, **comparative analyses across primary and high school levels with gender-balanced samples at the micro-regional level (Barrackpore, North 24 Parganas)** remain underexplored. Therefore, the present study addresses this gap by adopting a **quantitative, school-based approach** to examine how **digital learning systems influence academic anxiety and learning interest among primary and high school students**.

Research Methodology

The present investigation employed a **quantitative research approach** with a **descriptive–correlational design** to examine the **impact of digital learning systems on academic anxiety and learning interest among school students**, as quantitative methods are appropriate for measuring psychological variables objectively and analyzing relationships statistically (Creswell, 2014). The study was conducted in the **Barrackpore area of North 24 Parganas district, West Bengal**, encompassing both **primary and high school educational settings** to ensure developmental representation (Best & Kahn, 2012).

The **population** of the study comprised all students studying at the primary and high school levels in the selected schools of the study area. A **stratified random sampling technique** was adopted to ensure proportional representation of **school level and gender**, which enhances the generalizability of findings (Gay, Mills, & Airasian, 2018). The final **sample consisted of 300**



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students selected from **six schools**, including **three high schools** (Nona Chandanpukur Manmatha Nath Higher Secondary School, Nona Chandanpukur Umasashi High School, and Barrackpore A. B. Model High School) and **three primary schools** (Gopal Chandra Primary School, Uttam Chandra Primary School, and Harahal Primary School). From each school, **50 students were selected**, maintaining **gender parity** with **25 male and 25 female students**, which is recommended for minimizing gender bias in psychological research (**Kerlinger, 2006**).

Data were collected using **standardized and researcher-adapted tools**, including an **Academic Anxiety Scale**, a **Learning Interest Scale**, and a **Digital Learning System Usage Questionnaire** designed to assess frequency, accessibility, and mode of digital learning exposure. Content validity of the instruments was ensured through **expert review**, while reliability was established through **pilot testing** and internal consistency measures, following accepted psychometric principles (**Anastasi & Urbina, 2007**). The collected data were analyzed using **descriptive statistics** such as mean and standard deviation to summarize trends, and **inferential statistics** including **t-tests**, **Pearson's correlation**, and **regression analysis** to determine the magnitude and direction of relationships among variables (**Cohen, Manion, & Morrison, 2018**).

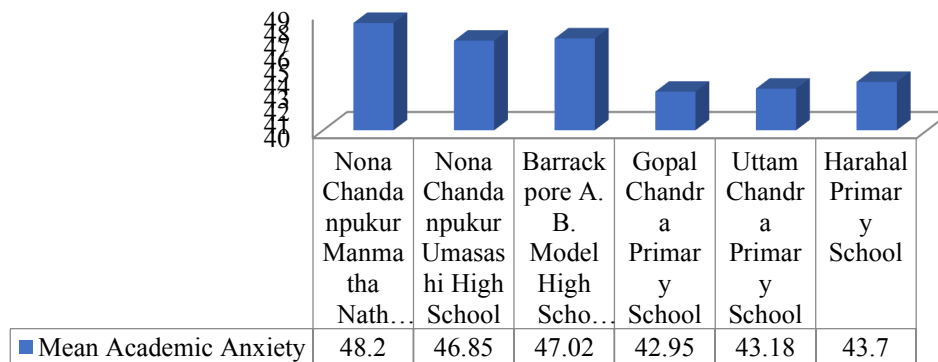
Ethical standards were strictly maintained throughout the study by obtaining **institutional permission**, ensuring **informed consent**, maintaining **confidentiality**, and allowing voluntary participation, in accordance with ethical norms in educational and psychological research (**American Psychological Association, 2020**). The adopted methodology was considered appropriate for generating valid and reliable findings regarding the psychological impact of digital learning systems on school students.

Data Analysis & Results

School-wise Mean Academic Anxiety Scores

School Name	Mean Academic Anxiety (%)
Nona Chandanpukur Manmatha Nath H.S. School	48.20
Nona Chandanpukur Umasashi High School	46.85
Barrackpore A. B. Model High School (H.S.)	47.02
Gopal Chandra Primary School	42.95
Uttam Chandra Primary School	43.18
Harahal Primary School	43.70

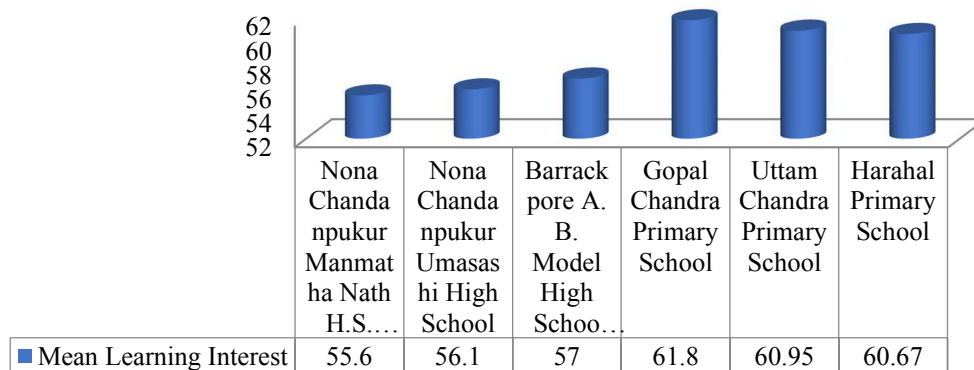
Mean Academic Anxiety



School-wise Mean Learning Interest Scores

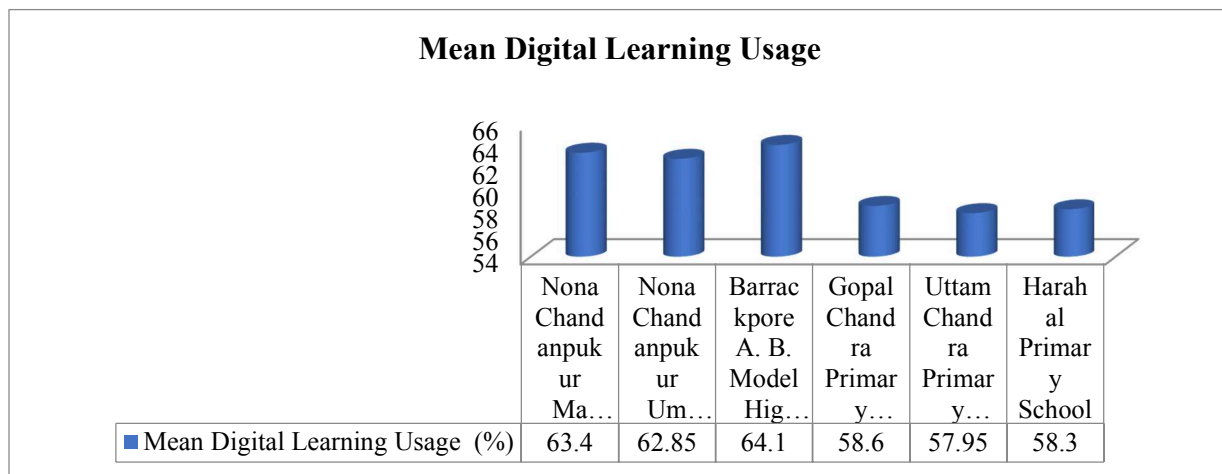
School Name	Mean Learning Interest (%)
Nona Chandanpukur Manmatha Nath H.S. School	55.60
Nona Chandanpukur Umasashi High School	56.10
Barrackpore A. B. Model High School (H.S.)	57.00
Gopal Chandra Primary School	61.80
Uttam Chandra Primary School	60.95
Harahal Primary School	60.67

Mean Learning Interest

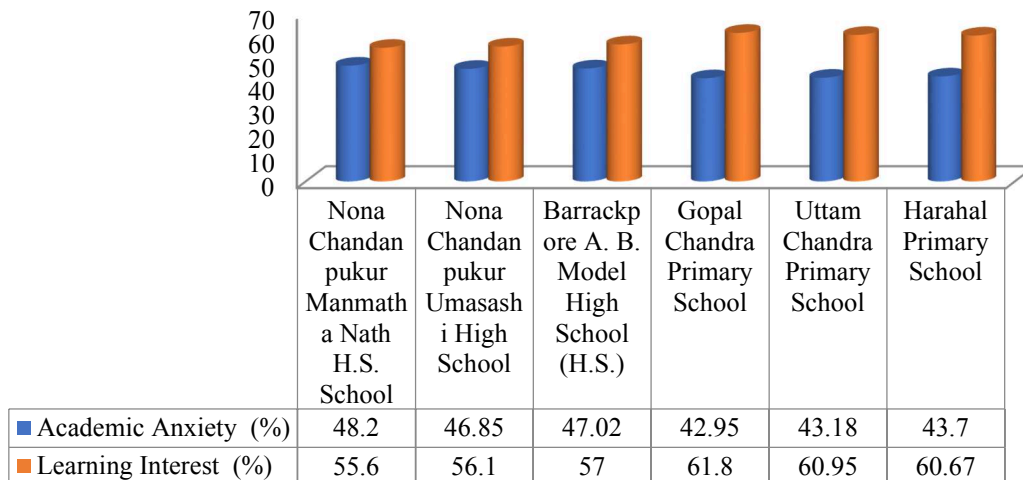


School-wise Mean Digital Learning System Usage Scores

School Name	Mean Digital Learning Usage (%)
Nona Chandanpukur Manmatha Nath H.S. School	63.40
Nona Chandanpukur Umasashi High School	62.85
Barrackpore A. B. Model High School (H.S.)	64.10
Gopal Chandra Primary School	58.60
Uttam Chandra Primary School	57.95
Harahal Primary School	58.30

**School-wise Combined Psychological Profile (Mean Scores)**

School Name	Academic Anxiety (%)	Learning Interest (%)
Nona Chandanpukur Manmatha Nath H.S. School	48.20	55.60
Nona Chandanpukur Umasashi High School	46.85	56.10
Barrackpore A. B. Model High School (H.S.)	47.02	57.00
Gopal Chandra Primary School	42.95	61.80
Uttam Chandra Primary School	43.18	60.95
Harahal Primary School	43.70	60.67

**Objective 1**

To examine the level of academic anxiety and learning interest among primary and high school students in relation to the use of digital learning systems.

H₀₁:

There is no significant difference in the level of academic anxiety and learning interest of school students with respect to their use of digital learning systems.

Comparison of Academic Anxiety Based on Digital Learning System Usage

Digital Learning Usage	N	Mean	SD	t-value	p-value
High Usage	150	42.36	6.21		
Low Usage	150	47.89	6.84	5.24	0.001



Comparison of Learning Interest Based on Digital Learning System Usage

Digital Learning Usage	N	Mean	SD	t-value	p-value
High Usage	150	61.72	7.15		
Low Usage	150	55.38	6.98	6.13	0.001

Result (Objective 1)

The obtained t -values for both academic anxiety and learning interest are significant at the 0.05 level.

Decision : H_{01} is Rejected.

Students with **higher exposure to digital learning systems show significantly lower academic anxiety and higher learning interest** compared to students with low digital learning usage.

Objective 2

To study the relationship between digital learning system usage and academic anxiety as well as learning interest among school students.

H_{02} :

There is no significant relationship between digital learning system usage and academic anxiety and learning interest among school students.

Correlation between Digital Learning Usage and Academic Anxiety

Variables	N	r-value	p-value	Relationship
Digital Learning $\times$ Academic Anxiety	300	-0.48	0.001	Moderate Negative



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Correlation between Digital Learning Usage and Learning Interest

Variables	N	r-value	p-value	Relationship
Digital Learning $\times$ Learning Interest	300	+0.56	0.001	Moderate Positive

Result (Objective 2)

Both correlations are statistically significant at the 0.05 level.

Decision : H_{02} is Rejected.

Interpretation

Increased use of digital learning systems is **associated with reduced academic anxiety and enhanced learning interest** among school students.

Objective 3

To compare academic anxiety and learning interest of school students across gender and school level in the context of digital learning systems.

H_{03} :

There is no significant difference in academic anxiety and learning interest of school students based on gender and school level.

Gender-wise Comparison of Academic Anxiety

Gender	N	Mean	SD	t-value	p-value
Male	150	44.12	6.57		
Female	150	46.85	6.73	3.41	0.001

Gender-wise Comparison of Learning Interest

Gender	N	Mean	SD	t-value	p-value
Male	150	58.96	7.21		
Female	150	60.87	7.08	2.32	0.02

School Level-wise Comparison of Academic Anxiety

School Level	N	Mean	SD	t-value	p-value
Primary	150	43.28	6.35		
High School	150	47.69	6.91	4.86	0.001

School Level-wise Comparison of Learning Interest

School Level	N	Mean	SD	t-value	p-value
Primary	150	61.14	7.03		
High School	150	56.42	7.29	5.17	0.001

Result (Objective 3)

Significant differences were found across **gender and school level** for both academic anxiety and learning interest.

Decision : H_{03} is Rejected.

Female students and high school students exhibit higher academic anxiety, while primary students demonstrate greater learning interest, highlighting developmental and gender-based psychological differences in digital learning contexts.

Research Findings

- ❖ The analysis indicates that **students who regularly engage with digital learning systems experience noticeably lower academic anxiety** than those with limited digital exposure,



suggesting that familiarity with digital platforms supports emotional ease in learning situations.

- ❖ Results further show that **learning interest increases with greater use of digital learning systems**, reflecting the ability of digital tools to stimulate curiosity, attention, and learner involvement.
- ❖ Statistical examination reveals that **digital learning system usage is inversely associated with academic anxiety**, implying that structured and consistent digital engagement helps students manage academic pressure more effectively.
- ❖ A positive association was identified between **digital learning system usage and learning interest**, demonstrating that technology-supported learning environments encourage sustained academic engagement.
- ❖ Gender-based analysis shows that **female students tend to report higher academic anxiety than male students**, while at the same time displaying **greater interest in learning**, indicating differential psychological responses to academic demands.
- ❖ Comparison across school levels reveals that **high school students exhibit higher levels of academic anxiety than primary school students**, likely due to increased academic load, evaluation intensity, and performance expectations.
- ❖ The findings also indicate that **primary school students demonstrate stronger learning interest than high school students**, highlighting the effectiveness of interactive and visually engaging digital content at the early stages of schooling.
- ❖ School-wise analysis shows a clear pattern in which **high schools record higher average anxiety scores**, whereas **primary schools reflect higher learning interest**, emphasizing developmental variations in students' psychological responses.
- ❖ The rejection of all formulated null hypotheses confirms that **digital learning systems significantly influence both academic anxiety and learning interest**, and that these effects differ meaningfully by **gender and school level**.
- ❖ Overall, the findings establish that **well-designed digital learning systems can function as psychological supports**, reducing anxiety and enhancing interest when implemented thoughtfully and age-appropriately.

Conclusion

The present quantitative study concludes that **digital learning systems have a significant influence on the psychological dimensions of school students**, particularly in relation to **academic anxiety and learning interest**. The findings clearly indicate that students who engage



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more frequently with digital learning platforms tend to experience **lower levels of academic anxiety** and **higher levels of learning interest**, highlighting the supportive role of technology in contemporary education. The study further establishes that psychological responses to digital learning are not uniform; rather, they vary across **gender and school level**, with **high school students and female students exhibiting relatively higher academic anxiety**, while **primary school students demonstrate greater learning interest**. These variations emphasize the need for **developmentally sensitive and emotionally responsive digital learning practices**. Overall, the study affirms that when digital learning systems are thoughtfully integrated into school education, they can contribute positively not only to academic engagement but also to students' emotional well-being.

Recommendations

- ❖ **Structured integration of digital learning systems** should be promoted in schools to reduce academic anxiety by providing students with interactive, self-paced, and learner-friendly digital resources.
- ❖ **Teachers should receive systematic training** to design and implement digital learning activities that enhance learning interest while minimizing cognitive overload and academic stress.
- ❖ **Age-appropriate digital content** should be developed separately for primary and high school students, recognizing their distinct psychological and developmental needs.
- ❖ **Gender-sensitive instructional strategies** should be adopted to address higher academic anxiety among female students, including supportive feedback, flexible assessment practices, and confidence-building digital tasks.
- ❖ **Schools should monitor students' psychological responses** to digital learning through regular assessments of anxiety and learning interest to ensure a balanced and supportive learning environment.
- ❖ **Policymakers and curriculum planners** should integrate psychological well-being indicators into digital education policies, ensuring that technological advancement aligns with students' emotional and motivational needs.

References

1. Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)



International Educational Applied Research Journal

Peer-Reviewed Journal-Equivalent to UGC Approved Journal

A Multi-Disciplinary Research Journal

2. Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman.
3. Best, J. W., & Kahn, J. V. (2016). *Research in education* (10th ed.). Pearson Education.
4. Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
5. Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.
6. Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268.
7. Dörnyei, Z. (2001). *Motivational strategies in the language classroom*. Cambridge University Press.
8. Eysenck, M. W., Derakshan, N., Santos, R., & Calvo, M. G. (2007). Anxiety and cognitive performance: Attentional control theory. *Emotion*, 7(2), 336–353.
9. Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2019). *How to design and evaluate research in education* (10th ed.). McGraw-Hill.
10. Gay, L. R., Mills, G. E., & Airasian, P. (2012). *Educational research: Competencies for analysis and applications* (10th ed.). Pearson.
11. Hidi, S., & Renninger, K. A. (2006). The four-phase model of interest development. *Educational Psychologist*, 41(2), 111–127. https://doi.org/10.1207/s15326985ep4102_4
12. Kothari, C. R. (2014). *Research methodology: Methods and techniques* (3rd ed.). New Age International.
13. Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2010). Evaluation of evidence-based practices in online learning. *U.S. Department of Education*.
14. Ministry of Education, Government of India. (2020). *National Education Policy 2020*. Government of India.
15. OECD. (2015). *Students, computers and learning: Making the connection*. OECD Publishing.
16. Pintrich, P. R. (2003). A motivational science perspective on the role of student motivation in learning and teaching contexts. *Journal of Educational Psychology*, 95(4), 667–686.
17. Rosen, L. D., Lim, A. F., Smith, J., & Smith, J. (2014). The distracted student: Does media multitasking impair learning? *Computers in Human Behavior*, 38, 165–172.
18. Salanova, M., Llorens, S., & Cifre, E. (2013). The dark side of technologies: Technostress among users. *International Journal of Psychology*, 48(3), 422–436.
19. Schunk, D. H. (2012). *Learning theories: An educational perspective* (6th ed.). Pearson.



International Educational Applied Research Journal

Peer-Reviewed Journal-Equivalent to UGC Approved Journal

A Multi-Disciplinary Research Journal

20. Schunk, D. H., Pintrich, P. R., & Meece, J. L. (2008). *Motivation in education: Theory, research, and applications* (3rd ed.). Pearson Education.
21. Singh, Y. K. (2012). *Educational research*. APH Publishing Corporation.
22. Spielberger, C. D. (1983). *Manual for the State-Trait Anxiety Inventory (STAI)*. Consulting Psychologists Press.
23. UNESCO. (2021). *Reimagining our futures together: A new social contract for education*. UNESCO Publishing.
24. Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425–478.
25. Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. *Handbook of Self-Regulation*, 13–39.

**“TO STUDY THE ANTHROPOMETRIC CHANGES DURING PREGNANCY”****INTRODUCTION**

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Pregnancy is the time when one or more babies grow inside a woman's uterus. It can result from natural conception through vaginal intercourse or from assisted reproductive technology. Pregnancy can end in a live birth, miscarriage, abortion, or stillbirth, typically occurring around 40 weeks from the last menstrual period. This period is known as the gestational age, which is slightly over nine months. Implantation happens about 8–9 days after fertilization. An embryo refers to the developing baby in the first seven weeks after implantation, while the term fetus is used up until birth.

Early signs of pregnancy can include missed periods, sore breasts, morning sickness, increased hunger, implantation bleeding, and frequent urination. Pregnancy tests can confirm pregnancy, and contraception methods are used to prevent it.

Pregnancy is divided into three trimesters of about three months each. The first trimester involves fertilization and embryo development. Miscarriages are most likely during this time. In the second trimester, the mother may begin to feel fetal movement. By 28 weeks, over 90% of babies can survive outside the womb with good medical care, but those born this early may face serious health issues.

Good prenatal care can lead to better pregnancy results. Nutrition is key for the baby's growth, and prenatal care includes avoiding drugs and alcohol, exercising, and regular health check-ups. Pregnancy complications may include high blood pressure, gestational diabetes, and



severe nausea. Ideally, labor begins at term, which ranges from 37 to 42 weeks. Babies born before 37 weeks are preterm and face more health risks. Inducing labor before 39 weeks is generally not advised unless medically necessary.

Most pregnant women experience various symptoms that indicate pregnancy, such as breast tenderness and morning sickness. Key early signs include the presence of human chorionic gonadotropin (hCG) in blood and urine, a missed menstrual period, and implantation bleeding. Other physical signs are increased basal body temperature, Chadwick's sign (bluish discoloration of the cervix), Goodell's sign (softening of the cervix), and Hegar's sign (softening of the uterine isthmus).

Pregnancy can also lead to hormonal changes causing pigmentation of the linea alba, known as linea nigra, and darkening of the nipples and areolas. Additional signs may include stretch marks, varicose veins, peripheral edema, gum bleeding, and melasma. Other common symptoms consist of constipation, back pain, pelvic girdle pain, headaches, and changes in food preferences. Pregnant women may also experience urinary tract infections and disrupted sleep. Each pregnancy is unique, and not all women will have the same symptoms. Most common signs do not significantly impact daily activities or pose serious health threats.

During pregnancy, a woman's body undergoes many normal changes. The uterus grows larger and may lower in position near the end of pregnancy. Notable changes also occur in the breasts, with larger and darker areolae. Key hormonal changes include rising levels of progesterone and estrogens, which stop the menstrual cycle. Having a full-term pregnancy at a young age reduces the risk of certain cancers, and this risk decreases further with each additional full-term pregnancy.

As early as the second trimester, the fetus is seen as a successful allograft because it is genetically different from the mother. Increased immune tolerance during pregnancy helps prevent the mother's body from reacting against the fetus. Women with RhD negative blood carrying a RhD positive fetus should receive a Rho(D) immune globulin shot to prevent Rhesus disease.

In the first trimester, women experience a significant increase in minute ventilation, and the womb can grow to the size of a lemon by eight weeks. Common early symptoms include nausea and tender breasts. Braxton Hicks contractions, which are practice contractions, may start around six weeks but are usually not felt until later.



Throughout pregnancy, a woman's total blood volume increases, especially in the third trimester. Maternal activity and sleep positions can influence fetal development due to potential restrictions in blood flow. For instance, lying flat may compress a major blood vessel, which can be relieved by lying on the left side.

Most weight gain occurs in the third trimester, and the woman's abdomen changes shape as the fetus prepares for birth. The fetal head may drop into position, which eases upper abdominal pressure but increases the need to urinate and pressure on the pelvic floor. The timing of this head engagement varies, particularly between first and subsequent pregnancies.

Anthropometric measurements are noninvasive assessments of the body, important for evaluating nutritional status in both children and adults according to the CDC. They are mainly used in children to check health status, nutritional adequacy, and growth patterns, which are essential for assessing a child's well-being. In adults, these measurements help evaluate health, dietary status, and future disease risks, as well as diagnose obesity and determine body composition.

Key elements of anthropometry include height, weight, head circumference, body mass index (BMI), body circumferences (waist, hip, limbs), and skinfold thickness. Accurate repeated measurements can reveal medical, nutritional, or social issues in children. Abnormal results in pediatric cases need further investigation. Athletes can also benefit from these measures to enhance performance and detect potential medical issues like eating disorders. Furthermore, they are used to assess pregnant women's nutritional status and obesity in patients. Gestational weight gain (GWG) is a natural part of pregnancy, reflecting the growth of the fetus, placenta, and maternal tissues. The Institute of Medicine (IOM) concluded in 2009 that all women, including those with obesity, should gain some weight during pregnancy, with specific targets based on their pre-pregnancy weight. However, many pregnant women, regardless of their pre-pregnancy body mass index (BMI), gain too much weight and often retain more fat after giving birth. Excessive weight gain during pregnancy can lead to complications such as gestational diabetes, high blood pressure, and an increased likelihood of having a cesarean delivery, while too little weight gain can cause risks like preterm birth and low birth weight. Staying within recommended weight gain ranges can help reduce these risks and support better recovery after childbirth.

Research has shown that there is limited data connecting appropriate weight gain to body composition changes during pregnancy. Some studies have indicated that women who followed older IOM guidelines retained less fat postpartum, and differences in fat gain patterns were



noted among women with varying weights. For overweight or obese women, excessive GWG was linked to greater fat retention compared to those who gained an adequate amount of weight. The 2009 guidelines differ from the 1990 recommendations, especially regarding the classification of women by weight. Given the rise in BMI among women entering pregnancy, further research is needed to evaluate whether current GWG targets effectively lower maternal fat stores during pregnancy.

Despite the intention for fat stores to support breastfeeding, women with higher BMIs often breastfeed less than those with normal BMIs, which can increase health risks in future pregnancies and long-term for the mother. Various methods exist to assess body composition, but measuring body composition during pregnancy poses challenges due to limitations in some methods and the complexities of distinguishing between maternal and fetal tissues. Anthropometric measurements, like weight and circumferences, remain practical for estimating body composition during pregnancy and can be effectively used in clinical settings.

Anthropometric measurements are important for monitoring health during pregnancy, especially without advanced technology. These measurements help predict neonatal outcomes, evaluate maternal nutrition, and identify potential complications.

Key clinical aspects include predicting neonatal health, as maternal weight, height, and body mass index (BMI) are linked to infant birth size, indicating risks like low birth weight or intrauterine growth retardation. They also assist in monitoring maternal nutrition through measures like Mid-Upper Arm Circumference (MUAC) and skinfold thickness. Additionally, high indicators in late pregnancy may signal risks for cesarean delivery and other complications.

Early detection of metabolic risks is possible with specific skinfold and MUAC measurements, allowing for timely intervention. Serial measurements of symphysis-fundal height (SFH) track fetal growth and may highlight issues like macrosomia or growth restriction. Essential tools include weight and height for BMI, MUAC for nutritional status, skinfold thickness for body fat assessment, and growth charts for comparing measurements.

Gestational weight gain during pregnancy affects infant birth weight. A strong link exists between how much weight a mother gains and the child's birth weight, with low maternal weight gain being a preventable cause of low birth weight (LBW). Many pregnant women do not gain the recommended amount of weight, either gaining too little or too much. Understanding maternal factors and body measurements is essential, as these can help predict the risk of low birth weight.



Importance

Anthropometric measurements such as weight, height, circumferences, and skinfolds are important during pregnancy for several reasons. They help assess maternal nutrition, predict risks like gestational diabetes, preeclampsia, and low birth weight, guide nutritional advice, monitor body composition changes, and ensure healthy fetal development.

Key uses include nutritional assessment, risk prediction for complications, monitoring fetal growth, tracking body composition, and enabling early intervention. Common measurements used are Body Mass Index (BMI), Mid-Upper Arm Circumference (MUAC), skinfold thickness, and waist circumference. These simple and cost-effective methods allow healthcare providers to proactively manage pregnancies for better outcomes for mothers and babies.

Objectives

The objective of the study was to examine how changes in anthropometric indicators during pregnancy, including weight gain vary compare changes among body mass index (BMI) (kg/m²) groups and examine how the changes were associated with adequacy of gestational weight gain GWG.

Sample size

In this paper, 60 pregnant women have been selected by random sampling method.

Variables

In this paper, independent variable was pregnant women and dependent variables are anthropometric measurements such as height, weight, gestational weight gain and BMI.

Methods

This paper was a secondary analysis of data from a study conducted to examine the role of weight changes during pregnancy.

Anthropometrics

Maternal height was measured at baseline (<12 weeks). Weight was measured at baseline, 16-22 weeks of gestation (second visit) and at 26- 32 weeks of gestation (third visit) during pregnancy. GWG was calculated using the measured weight at baseline subtracted from the weight at visit 3.

Result

Table presents the anthropometric measurements of 60 participants:

S.no.	Anthropometric Indicators	Category	No. of samples	Percentage
1.	Height	140-150 cm	14	23.3%
		150-160 cm	27	45%
		160 cm and above	19	31.6%
2.	Weight	40-50 kg	22	36.6%
		50-60 kg	27	45%
		60 kg and above	11	18.3%
3.	BMI (kg/m ²)	18.5-25 (normal)	15	25%
		25-30 (overweight)	18	30%
		More than 30 (obese)	27	45%
4.	Gestational Weight Gain (GWG)	3-4 kg	12	20%
		4-6 kg	25	41.6%
		More than 6 kg	23	38.3%

From the above result, it was concluded that 23.3% of pregnant women have 140-150 cm height, 45% have 150-160 cm height and 31.6% have 160 and above height. Similarly 36.6% pregnant women have 40-50 kg weight, 45% have 50-60 kg weight and 18.3% have 60 and above weight.

25% pregnant women have 18.5-25 BMI, 30% have BMI between 25-30 and 45% have more than 30 and above BMI. 20% pregnant women gain 3-4 kg gestational weight, 41.6% women



gain 4-6 kg weight and 38.3% women gain 6 kg and above gestational weight during pregnancy.

Discussion

Pregnancy is a time that requires a lot of physical effort as the body changes significantly. It is essential for women to gain weight within the recommended range to support their health and their baby's health. In this study, variations in body changes during pregnancy were noted based on the weight status of women at the start of their pregnancy. Women with obesity generally experienced negative changes, gained less weight, and showed more variation in their measurements compared to women with normal or overweight BMI. Women who gained the right amount of weight had minimal fat gain and slight positive changes in their body measurements, while those who did not gain enough experienced negative changes. Greater fat gain was linked with excessive weight gain compared to adequate weight gain.

The data show that body changes during pregnancy vary based on a woman's early pregnancy BMI and relate to how adequately they gain weight. Women who gained the right amount had little fat gain and avoided negative changes, supporting current guidelines. Further studies are needed to confirm these results and examine how these changes relate to other health factors during pregnancy.

References

1. Institute of Medicine (US), National Research Council (US) In:Committee to Reexamine IOM, Pregnancy Weight Guidelines, Weight gain during pregnancy: reexamining the guidelines. Rasmussen K., Yaktine A., editors. The National Academies Press; Washington, DC: 2009. [[PubMed](#)] [[Google Scholar](#)]
2. Deputy N.P., Sharma A.J., Kim S.Y., Hinkle S.N. Prevalence and characteristics associated with gestational weight gain adequacy. *Obstet. Gynecol.* 2015;125(4):773–781.doi: 10.1097/AOG.0000000000000739. [[DOI](#)] [[PMC free article](#)] [[PubMed](#)] [[Google Scholar](#)]
3. DHHS, CDC . US Department of Health and Human Services and Centers for Disease Control and Prevention; 2011. Pregnancy Nutrition Surveillance 2009 Report. [[Google Scholar](#)]
4. QuickStats Gestational weight gain among women with full-term, Singleton Births, compared with recommendations — 48 states and the District of Columbia, 2015.



- MMWR Morb. Mortal. Wkly. Rep. 2016;65(40):1121. doi: 10.15585/mmwr.mm6540a10. [DOI] [PubMed] [Google Scholar]
5. Margerison Zilko C.E., Rehkopf D., Abrams B. Association of maternal gestational weight gain with short- and long-term maternal and child health outcomes. *Am. J. Obstet. Gynecol.* 2010;202(6):574.e1–574.e8. doi: 10.1016/j.ajog.2009.12.007. [DOI] [PubMed] [Google Scholar]
 6. Gilmore L.A., Klempel-Donchenko M., Redman L.M. Pregnancy as a window to future health: excessive gestational weight gain and obesity. *Semin. Perinatol.* 2015;39(4):296–303. doi: 10.1053/j.semperi.2015.05.009. [DOI] [PMC free article] [PubMed] [Google Scholar]
 7. Goldstein R.F., Abell S.K., Ranasinha S., Misso M., Boyle J.A., Black M.H., et al. Association of gestational weight gain with maternal and infant outcomes: a systematic review and meta-analysis. *JAMA.* 2017;317(21):2207–2225. doi: 10.1001/jama.2017.3635. [DOI] [PMC free article] [PubMed] [Google Scholar]
 8. Huang Y., Ouyang Y.-Q., Redding S.R. Maternal prepregnancy body mass index, gestational weight gain, and cessation of breastfeeding: a systematic review and meta-analysis. *Breastfeed. Med.* 2019;14(6):366–374. doi: 10.1089/bfm.2018.0138. [DOI] [PubMed] [Google Scholar]
 9. Lederman S.A., Paxton A., Heymsfield S.B., Wang J., Thornton J., Pierson R.N. Body fat and water changes during pregnancy in women with different body weight and weight gain. *Obstet. Gynecol.* 1997;90:483–488. doi: 10.1016/s0029-7844(97)00355-4. [DOI] [PubMed] [Google Scholar]
 10. Soltani H., Fraser R.B. A longitudinal study of maternal anthropometric changes in normal weight, overweight and obese women during pregnancy and postpartum. *Br. J. Nutr.* 2000;84(1):95–101. doi: 10.1017/s0007114500001276. [DOI] [PubMed] [Google Scholar]
 11. Berggren E.K., Groh-Wargo S., Presley L., Hauguel-de Mouzon S., Catalano P.M. Maternal fat, but not lean, mass is increased among overweight/obese women with excess gestational weight gain. *Am. J. Obstet. Gynecol.* 2016;214(6):745.e1–745.e5. doi: 10.1016/j.ajog.2015.12.026. [DOI] [PMC free article] [PubMed] [Google Scholar]
 12. Most J., Altazan A.D., Hsia D.S., Beyl R.A., Redman L.M. Body composition during pregnancy differs by obesity class. *Obesity (Silver Spring)* 2020;28(2):268–276. doi: 10.1002/oby.22699. [DOI] [PMC free article] [PubMed] [Google Scholar]



**बांध परियोजनाओं से उद्यानिकी फसल प्रारूप में परिवर्तन का अध्ययन
(खरगोन जिले के संदर्भ में भौगोलिक अध्ययन)**

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सारांश

उद्यानिकी कृषि में कृषक अपनी भूमि का अधिकतम उपयोग कर सकता हैं। यह एक बहु आयामी कृषि हैं। जिसके अन्तर्गत फलों की कृषि, फूलों की कृषि, मसालों की कृषि और औषधिय पौधों तथा सजावटी पौधों की कृषि की जाती हैं। जिससे एक ही समय विशेष में एक साथ एक से अधिक फसल का उत्पादन किया जा सकता है। प्रस्तुत शोध पेपर में खरगोन जिले की बांध सिंचाई परियोजनाओं द्वारा उद्यानिकी फसलों के प्रारूप में होने वाले परिवर्तन का विश्लेषण किया गया हैं। बांध सिंचाई साधनों के विकास के कारण जिले के शुष्क एवं अर्द्ध शुष्क क्षेत्रों के अलावा नदी घाटी क्षेत्रों में भी फसल प्रारूप में परिवर्तन पाया गया हैं। इन भागों में वर्षा पर निर्भरता कम कर कृत्रिम रूप से जलापूर्ति सुनिश्चित की जा रही हैं। जिससे खरीफ, रबी और जायद की फसल प्रारूप में व्यापक परिवर्तन हुआ हैं। परम्परागत और व्यावसायिक कृषि लगातार उद्यानिकी कृषि में परिवर्तित हो रही हैं। जिले में फलों की कृषि में रिक्त स्थान में अन्य फसलों का उत्पादन कर मृदा के पोषक तत्वों का कुशल उपयोग किया जा रहा हैं।

कि-वर्ड – उद्यानिकी कृषि, सिंचाई, पर्यावरण संरक्षण, फसल प्रारूप।

प्रस्तावना :

खरगोन जिला पश्चिमी मध्य प्रदेश में स्थित आदिवासी बाहुल जिला हैं। यहां की अधिकांश जनसंख्या कृषि कार्य में संगग्न हैं। जिले में विगत दशकों में नर्मदा घाटी विकास परियोजना के क्रियान्वयन के तहत जिले में नर्मदा और उसकी सहायक नदियों पर अनेक बांध बनाए गये तथा बहुउद्देशिय परियोजनाओं का निर्माण किया गया। जिनसे सिंचाई, मत्स्य पालन, जब पर्यटन और विद्युत उत्पादन का कार्य किया जा रहा हैं। वृहद स्तर की परियोजनाओं में शामित्र इंदिरा सागर परियोजना, ओंकारेश्वर परियोजना प्रमुख हैं। इसी प्रकार छोटी परियोजनाओं में अपरवेदा परियोजना तथा देजना देवाडा बांध परियोजना, अन्य बांध परियोजनाओं का निर्माण किया गया है। इन परियोजनाओं के निर्माण से जिले के 626 ग्रामों को प्रत्यक्ष एवं अप्रत्यक्ष रूप से 133980 हेक्टेयर कृषि भूमि सिंचित हुई हैं। जिससे व्यापक पैमाने पर कृषि पारिस्थितिकी और पर्यावरण में परिवर्तन हुआ हैं। सिंचाई सुविधाओं के विस्तार के कारण जिले में उद्यानिकी कृषि प्रारूप में भी व्यापक परिवर्तन हुआ हैं।

साहित्य समीक्षा वर्तमान में विषय से सम्बंधीत साहित्य समीक्षा हेतु हमने विषय को समझने और बेहतर मार्गदर्शन हेतु साहित्य का अध्ययन किया हैं -

1. चौधरी, एन. एवं अन्य (2025): अपनी पुस्तक 'हार्टिकल्चर एंड इकोनॉमिक ग्रोथ (जया प्रकाशन हाउस) में बेखक ने संरक्षित खेती से खुले खेतों की दक्षता 65 प्रतिशत की वृद्धि का उल्लेख किया हैं। तुलना में जब उपयोग की
2. सिंह, जो (2024) 'बेसिक हार्टिकल्चर (कल्याणी प्रकाशन) के नवीनतम संस्करण लॅ सूक्ष्म सिंचाई को अपनाने से उर्वरकों की खपत में 30 प्रतिशत की कमी का जीन किया हैं ।
3. चट्टा, के. एल. (2023) : 'हैंडबुक ऑफ हॉर्टिकल्चर' (आईसीएआर) में बताया हैं कि जलवायु स्मार्ट बागवानी तकनीकों से सूखे की स्थिति में भी बेहतर उत्पादन स्थिरता को 20 प्रतिशत तक सुधारा जा सकता हैं।

**अध्ययन क्षेत्र –**

शोध क्षेत्र के लिये मध्यप्रदेश के पश्चिम में स्थित जिला प्रशासनिक इकाई खरगोन का चयन किया गया है। यह क्षेत्र $21^{\circ}22'$ से $22^{\circ} 25'$ उत्तरी अक्षांश और $74^{\circ} 25'$ से $76^{\circ}14'$ पूर्वी देशांतर के मध्यम 8030 वर्ग किलोमीटर में विस्तारित हैं। सतपुड़ा पर्व श्रेणी और नर्मदा नदी घाटी में स्थित यह क्षेत्र भौगोलिक दृष्टि से अत्यन्त महत्वपूर्ण है। इस क्षेत्र में विगत वर्षों में सिंचाई साधनों के विकास के कारण न केवल आदिवासी अपितु समस्त कृषक समुदाय के जीवन स्तर से सुधार हुआ। इस क्षेत्र में वर्तमान में कृषि भू-दृश्य में व्यापक परिवर्तन होने से भौगोलिक दृष्टि से शोध विषय के अध्ययन क्षेत्र के रूप में अत्यंत प्रासंगिक क्षेत्र हैं।

उद्देश्य –

शोध का प्रमुख उद्देश्य अध्ययन क्षेत्र खरगोन जिले में उद्यानिकी फसल प्रारूप का स्थानिक कालिक परिवर्तनों का विश्लेषण करना हैं। इसके अंतर्गत पारस्परिक फसलों के उद्यानिकी फसलों में हुए रूपांतरण की दर ज्ञात करना तथा भौगोलिक विस्तार का मात्रात्मक आकलन करना शामिल हैं।

शोध प्रविधि -

शोध कार्य में प्राथमिक एवं द्वितीयक आंकड़ों का प्रयोग किया गया हैं। प्राथमिक आंकड़ों का संकलन अनुसूचि एवं प्रश्नावली विधि द्वारा साक्षात्कार और अवलोकन के माध्यम से सर्वेक्षण द्वारा किया गया। सोद्देश्य प्रतिचयन विधि द्वारा सिंचित क्षेत्र वाली प्रत्येक तहसील से ग्रामों का चयन कर कृषक परिवार का प्रत्यक्ष सर्वेक्षण किया गया। संकलित आंकड़ों को विसरण एवं विभिन्न सांख्यिकीय विधियों जिनमें माध्य द्वारा औसत मान ज्ञात करने आदि में प्रयोग किया गया।

उद्यानिकी फसल प्रारूप में परिवर्तन का विश्लेषण –

खरगोन जिले की बांध सिंचाई परियोजनाओं के सिंचाई नियंत्रण क्षेत्र में विभिन्न चरणों में उद्यानिकी फसल प्रारूप में परिवर्तन हुआ हैं। बांध परियोजनाओं के निर्माण से पूर्व जिले में परम्परागत कृषि एवं व्यावसायिक



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कृषि अधिक क्षेत्र में की जाती थी। परम्परागत कृषि के तहत मोटे अनाज में मक्का सर्वाधिक 15 प्रतिशत क्षेत्र तथा तीलहन फसलों में सोयाबीन 20 प्रतिशत क्षेत्र और व्यावसायिक कृषि में नगदी फसल के रूप में कपास का सर्वाधिक उत्पादन 41 प्रतिशत क्षेत्र में किया गया। इसी प्रकार जिले में उद्यानिकी कृषि के अन्तर्गत विभिन्न रूपों में फलों, फुलों, सब्जियों और मसालों तथा औषधीय पौधों, सजावटी पौधों की कृषि कुल 20120 हेक्टेयर क्षेत्रफल में की जाती थी। इस दौरान जिले में सिंचाई के सीमित साधन उपलब्ध थे। जिले की अधिकांश उद्यानिकी कृषि वर्षा आधारित होने से खरीफ ऋतु में ही अधिक कृषि की जाती थी। शेष समय में सीमित सिंचित साधनों की उपलब्धता वाले क्षेत्रों में ही विस्तार रहा।

बांध सिंचाई परियोजनाओं के निर्माण से जिले में सिंचाई साधनों के विकास के कारण कृषकों का आकर्षण उद्यानिकी फसलों और व्यावसायिक फसलों की ओर अधिक बढ़ने लगा है। त्वरीत सिंचाई प्रणाली के विकास से शस्य गहनता में बदलाव एवं लाभ दायक फसलों के चयन हेतु अनेक विकल्प उपलब्ध होने लगे। जिससे किसान परम्परागत कम लाभ प्रदान करने वाली कृषि से उद्यानिकी कृषि की ओर अधिक आकर्षित होने लगे। वर्तमान में जिले में कुल 72609 हेक्टेयर क्षेत्र में उद्यानिकी कृषि की जा रही है। जो कुल 72.8 प्रतिशत की वृद्धि को प्रकट करता है। नर्मदा घाटी की उपजाऊ भूमि में कपास की खेती का स्थान केले की खेती की ने ले लिया है। इसी प्रकार शुष्क और अर्द्ध शुष्क क्षेत्रों में अमरुद और आम के विस्तार हुआ है। साथ मिर्च की कृषि व्यापक पैमाने पर की जा रही है। जिससे न केवल प्रदेश में अपितु देश में भी जिले की पहचान हुई है। जिले के कृषक व्यावसायिक कृषि में कपास के स्थान पर उद्यानिकी कृषि की ओर उन्मुख हो रहे हैं। यह उद्यानिकी कृषि के प्रारूप में परिवर्ती हो रही है।

धरातलीय विविधताओं से युक्त क्षेत्र में भी उद्यानिकी कृषि का विस्तार हुआ है। यहां उद्यानिकी की विविध रूपों में कृषि की जाती है। फलोत्पादन और सब्जी उत्पादन प्रमुख उद्यानिकी कृषि है। क्षेत्र विस्तार के कारण कृषकों की आय में वृद्धि दर्ज की गयी है। जिससे उनके जीवन स्तर में सुधार हुआ है। साथ ही मृदा संरक्षण और पर्यावरण सुरक्षा को सुनिश्चित करने में मिल का पथर

साबित हुआ है। इस प्रकार उद्यानिकी अपने बहु आयामी होने और बहुउद्देश्यिक कृषि होने को चरितार्थ किया है। क्षेत्र में निरक्षरता और भौगोलिक अलगाव के कारण नवीन तकनीकी ज्ञान की कमी एक प्रमुख चुनौति है। जिसे व्यापक प्रशिक्षण और जागरूकता द्वारा पूरा किया जा सकता है। जिले में न केवल निर्माणाधीन सिंचाई साधनों के पूर्ण होने अपितु जागरूकता बढ़ने पर उद्यानिकी कृषि के क्षेत्र विस्तार और उत्पादन में व्यापक वृद्धि की सम्भावना है।

निष्कर्ष -

नर्मदा घाटी विकास परियोजना के तहत खरगोन जिले में नर्मदा और उसकी सहायक नदियों पर निर्मित बांध परियोजनाओं ने सिंचाई सुविधाओं का विस्तार कर जिले की उद्यानिकी कृषि प्रारूप में व्यापक परिवर्तन किया है। जिले की परम्परागत कृषि को व्यावसायिक कृषि और फिर उद्यानिकी कृषि के रूप में परिवर्तित किया है। क्षेत्रफल में कुल 72.28 प्रतिशत वृद्धि निकट भविष्य में और अधिक बढ़ने की सम्भावना को प्रकट करता है। वर्तमान यह अनेक कृषकों की आमदनी का प्रमुख स्रोत के रूप में स्थापित हो चुका है। जिले की उद्यानिकी फसलों में सबसे अधिक मात्रा में उत्पादित होने वाली फसलों में मिर्च फसल सर्वप्रमुख है। उद्यानिकी की ओर कृषकों का यह आकर्षण अंचल के उज्जवल भविष्य और आत्मनिर्भर कृषि की ओर निर्णायक संकेत है।

संदर्भ ग्रंथ -

1. आर्थिक एवं सांख्यिकी संचालनालय। (2010)। जिला सांख्यिकी पुस्तिका: जिला खरगोन। मध्य प्रदेश सरकार।
2. आर्थिक एवं सांख्यिकी संचालनालय। (2025)। जिला खरगोन। मध्य प्रदेश सरकार। प्रमुख सांख्यिकीय आंकड़े। <https://des.mp.gov.in>.
3. उद्यानिकी एवं खाद्य प्रसंस्करण विभाग, मध्य प्रदेश।(2010)। सांख्यिकी आंकड़े। <https://mphorticulture.gov.in>.
4. किसान कल्याण तथा कृषि विकास विभाग <https://mpkrishi.mp.gov.in>.



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5. चढडा, के.एल. (संपादक). (2023) हैंडबुक ऑफ हॉर्टिकल्चर (खंड 1 और 2 द्वितीय संशोधित संस्करण. भारतीय कृषि अनुसंधान परिषद. ICAR प्रकाशन ।
6. राज, जे. (2024). हॉर्टिकल्चर (7वां संशोधित संस्करण). कल्याणी प्रकाशन
7. शर्मा, आर.आर. एवं कृष्णा, एच. (2024). पोस्ट-हार्वेस्ट मैनेजमेंट एंड वैल्यू एडिशन ऑफ फ्रुट्स एंड वेजिटेबल्स. दया पब्लिशिंग हाउस
8. सिंह, डी. (2023). वेजिटेबल साइंस एंड टेक्नोलॉजी. एग्रोबियोस (इंडिया)

**"ग्रामीण विकास में विभिन्न नियोजनों एवं जिला प्रशासन की भूमिका"****डॉ. प्रभात चौधरी****शोध सार****शोध निर्देशक****प्राध्यापक राजनीति विज्ञान
विभाग****शासकीय स्नातकोत्तर
महाविद्यालय गुना (म.प्र.)****चन्द्र प्रकाश गौतम****शोधार्थी****विषय - राजनीति विज्ञान****जीवाजी विश्वविद्यालय****ग्वालियर (म.प्र.)****Paper Received date****05/12/2025****Paper date Publishing Date****10/12/2025****DOI**<https://doi.org/10.5281/zenodo.18174668>**IMPACT FACTOR****5.924**

भारतीय अर्थव्यवस्था एक निश्चित अर्थव्यवस्था है। अतः यहाँ पर सार्वजनिक क्षेत्र तथा निजी क्षेत्र दोनों का ही देश के आर्थिक विकास में महत्वपूर्ण योगदान रहा है। देश के आर्थिक नियोजन में सार्वजनिक एवं निजी क्षेत्रों की योजनाओं को अंगीकृत किया गया है। अब तक हमारे आर्थिक नियोजन का ढाँचा केन्द्रीयकृत और संकेन्द्रित प्रकार का रहा है। योजना आयोग लक्ष्यों को निर्धारित करके उसकी पूर्ति (या प्राप्ति) का उत्तरदायित्व अर्थव्यवस्था के दोनों क्षेत्रों (सार्वजनिक एवं निजी) के विभिन्न विभागों एवं संस्थाओं को सौंप देता है, लेकिन योजना आयोग के माध्यम से नियोजन का जो केन्द्रीयकृत ढाँचा विद्यमान है, उसे बदलने की आवश्यकता है। आठवीं पंचवर्षीय योजना हेतु योजना आयोग की भूमिका में परिवर्तन लाया गया था। जैसा कि योजना आयोग के पूर्व उपाध्यक्ष प्रणव मुखर्जी का कहना था- "बदली हुई परिस्थितियों के अनुरूप हमले योजना आयोग की भूमिका को नये सिरे से परिभाषित किया है। योजना आयोग की अत्यधिक केन्द्रीयकृत प्रणाली से अब हम निदेशात्मक योजना प्रणाली की ओर अग्रसर हो रहे हैं। यह योजना (1992-97) निर्देशात्मक प्रकृति की रही है। इसके भविष्य के लिए दीर्घकालीन कार्यनीति बलाने पर जोर दिया गया है तथा राष्ट्र की प्राथमिकताएँ निर्धारित की गयी हैं। योजना में सार्वजनिक क्षेत्र के

विभिन्न विकल्पों की विस्तृत जाँच और विशिष्ट परियोजनाओं का पता लगाने का

प्रयास किया गया है। अर्थ व्यवस्था के अन्य क्षेत्रों के लिए इसमें क्षेत्रवार लक्ष्य निर्धारित किये गये हैं जिससे अर्थव्यवस्था को निर्धारित दिशा में अग्रसर करने के लिए प्रोत्साहन मिल सके।"

सच तो यह है कि आठवीं योजना में लोकतांत्रिक आयोजन (Democratic Planning) पर जोर दिया गया अर्थात् पंचायती राज व्यवस्था के माध्यम से लोकतांत्रिक नियोजन के द्वार तक पहुँचना ध्येय रहा है।

मुख्यविन्दु : अर्थव्यवस्था, योगदान योजना परिवर्तन कार्यनीति, प्रोत्साहन

विकेन्द्रीकृत नियोजन (Decentralised Planning) :

विकेन्द्रीकृत नियोजन में योजना का निर्माण एवं उसका क्रियान्वयन केन्द्र से न होकर विभिन्न क्षेत्रों द्वारा संचालित होता है। इसके अन्तर्गत योजना निर्माण एवं संचालन में स्थानीय क्षेत्र विशेष के लोगों की सक्रिय भागीदारी रहती है।

लोकतांत्रिक नियोजन विकेन्द्रीकृत नियोजन का एक प्रमुख रूप है। इस प्रकार के नियोजन में योजनाओं को बनाने तथा उनका क्रियान्वयन करने में जन सामान्य की भागीदारी रहती है। पंचायती राज प्रणाली में हम लोकतांत्रिक नियोजन का स्वरूप देख सकते हैं। भारत में योजनाओं की नीति, लक्ष्य आदि का निर्धारण योजना आयोग करता रहा है। साथ ही क्षेत्र विशेष की समस्याओं पर अपनी सलाह देता रहा है। यहाँ पर राजनीति का रूप तो लोकतांत्रिक है, लेकिन नियोजन का स्वरूप लोकतांत्रिक नहीं रहा है। यही कारण है कि भारत में सरकार एवं जनता का विश्वास दिल-प्रति-दिल कम होकर दोनों के मध्य अविश्वास की खाई बढ़ती जा रही है। किसी भी आयोजन की सफलता

इस बात पर अधिक निर्भर करती है कि आज जलता की भागीदारी उसमें किस सीमा तक विद्यमान है।

प्रो. कामताप्रसाद का मानना है कि पंचायती राज प्रणाली के जरिये योजना में लोगों की भागीदारी से योजना के और सक्षम एवं बेहतर होने की आशा है क्योंकि स्थानीय लोगों का अपनी आवश्यकताओं के बारे में बेहतर दृष्टिकोण होता है तथा स्थानीय संसाधनों के सम्बन्ध में उन्हें अच्छी जानकारी होती है। भारत में आज जिन राज्यों में पंचायती राज संस्थाएँ कार्य कर रही हैं: यहाँ उनकी भूमिका केवल सतही है क्योंकि योजना द्वारा समन्वित ग्रामीण विकास कार्यक्रम के लाभार्थियों के चयन में अथवा ग्रामीण विकास योजनाओं में ये संस्थायें साधारण रूप से भागीदार रही हैं।

लोकतांत्रिक विकेन्द्रीकरण अथवा ग्रामीण भारत में सामाजिक तथा आर्थिक स्थितियों में सुधार लाने और स्थानीय प्रयासों की उपयोगिता को बनाये रखने के उद्देश्य से जनवरी 1957 में बलवन्त राय मेहता समिति गठित की गयी। जिसने 24 नवम्बर 1957 को अपनी रिपोर्ट में कहा कि राज्य के निचले स्तर पर अधिकारों एवं दायित्वों का विकेन्द्रीकरण करना अत्यन्त आवश्यक है। समिति ने आगे कहा- "सत्ता ऐसी संस्था को सौंपी जाये जो अपने अधिकार क्षेत्र के अन्तर्गत सभी विकास कार्यों के लिए उत्तरदायी हो और सरकार का काम मार्गदर्शन, उच्च स्तर की योजना बलाना तथा जहाँ आवश्यकता हो धन उपलब्ध कराना ही रहना चाहिये।

पंचायती राज संस्थायें हमारी लोकतांत्रिक संस्थाओं की रीढ़ रही हैं। जिनके चारों ओर गाँव की समूची सामाजिक एवं आर्थिक गतिविधियाँ चलती थी। वैदिक काल से लेकर ब्रिटिश काल तक ये पंचायतें ही हमारे गाँवों एवं ग्रामीणों की आवश्यकताओं की देखभाल करती थी। आज हमें पुनः ग्राम पंचायतों की सक्रिय भूमिका को लेकर नियोजन एवं उसकी कार्य प्रणाली का संचालन करना चाहिए।

जिला प्रशासन की भूमिका एवं महत्व (Role and Importance of District Administration) :
 राज्य में जिला प्रशासन आधारभूत इकाई होती है। अतः जलता की शिकायतें जिला स्तर पर ही अधिक उभरती हैं। इसके अलावा अच्छे-बुरे प्रशासन का भेद जिला स्तर पर ही अनुभव किया जाता

है। राज्य विधान सभाओं के सदस्यों का जिलों से ही विशेष सम्पर्क रहता है। जिले राज्य प्रशासन की ऐसी इकाई होते हैं। जहाँ न केवल सरकारी नीतियों को ही क्रियान्वित किया जाता है, बल्कि जिनका नीति-निर्माताओं के चयन में भी निर्णायक प्रभाव रहता है। शासन प्रबंध की दृष्टि से तथा विकास योजनाओं के निर्माण एवं उनके क्रियान्वयन की दृष्टि से जिला प्रशासन बड़ा उपयोगी सिद्ध होता है। भारत में जिला प्रशासन की भूमिका और महत्व लिम्बल कारणों से विशेष रूप से अनुभव किया जाता है-

- (1) सरकारी कालूनों और आदेशों को जिला क्षेत्र में लागू करना।
- (2) सरकार का भू-राजस्व एकत्रित करना ।
- (3) विकास कार्यों के माध्यम से जनता का अधिकाधिक विकास और कल्याण करना ।

नियोजन प्रणाली के विभिन्न रूप (Different Forms of Planning) :

विगत चार-पाँच दशकों के दौरान भारत में ग्रामीण विकास हेतु अपनायी गयी रणनीति में अनेक प्रकार की लियोजन पद्धतियों का अनुसरण किया गया है, जिनमें प्रमुख इस प्रकार हैं-

1. अल्पकालीन एवं दीर्घकालीन नियोजन- अल्प या लघु अवधि के लिए जो नियोजन प्रक्रिया अपनायी जाती है, उसमें तात्कालिक आवश्यकताओं एवं समस्याओं को सामने रखा जाता है। तात्कालिक समस्याएँ आर्थिक एवं सामाजिक दोनों ही तरह की हो सकती हैं। इस प्रकार लघु अवधि की लियोजन प्रणाली तात्कालिक समस्याओं को हल करने के लिए उपयोगी होती है। एक वर्षीय या कभी-कभी त्रिवर्षीय योजनाएँ बलाई जाती हैं। जैसे- भुगतान संतुलन एवं विदेशी विनिमय कोषों के अभाव से लिपटने के लिए बनायी गयी योजना, बजटीय व्यवस्था अल्पकालिक नियोजन में शामिल होती हैं। दूसरी ओर, अल्पकालिक नियोजन के अलावा या इसके साथ-साथ दीर्घावधि की योजनायें भी तैयार की जाती हैं। इसमें संस्थानिक एवं संरचनात्मक परिवर्तन शामिल रहते हैं। इसमें पंचवर्षीय योजनायें दस वर्षीय या बीस वर्षीय योजनायें शामिल रहती हैं। जैसे आर्थिक विकास हेतु दीर्घकालिक योजना, जनसंख्या नियंत्रण हेतु नीति भुगतान संतुलन की संरचनात्मक असामान्यता को सुधारने

हेतु योजना आदि। लघु अवधि की योजनायें दीर्घअवधि की योजना की रणनीति की सहायक होती है। लघु एवं दीर्घ अवधि की योजनाओं के मध्य सामंजस्य बनाये रखना होता है भारत में वार्षिक योजनायें वार्षिक बजट से जुड़ी होती हैं, उन्हें पंचवर्षीय योजनाओं के साथ जोड़ा जाता है। इस तरह दोनों ही प्रकार की योजनायें क्रमिक रूप से निरन्तर चलती रहती हैं। नियोजन एक निरन्तर चलने वाली प्रक्रिया है। एक पंचवर्षीय योजना को संशोधित रूप में अगले पाँच वर्षों के लिए बनाया जाता है।

(2) क्षेत्रीय नियोजन - प्रणाली के द्वारा पिछड़े क्षेत्रों एवं विशेषकर पर्वतीय क्षेत्र, मरुस्थलीय क्षेत्र जैसी भौगोलिक परिस्थितियों वाले क्षेत्रों की समस्याओं को हल करने का प्रयास किया जाता है। इनमें पर्वतीय क्षेत्र विकास कार्यक्रम जैसे उत्तर प्रदेश पर्वतीय विकास कार्यक्रम, मरुस्थलीय विकास कार्यक्रम शामिल हैं। क्षेत्रीय नियोजन कार्य प्रणाली में क्षेत्र विशेष के आर्थिक एवं सामाजिक सुधार हेतु अनेकानेक कार्यक्रम लागू किये जाते हैं।

(3) बहुधन्धी नियोजन- भारत में नियोजन के माध्यम से ग्रामीण विकास हेतु प्रथम प्रयास सामुदायिक विकास कार्यक्रमों के साथ प्रारम्भ हुआ। वर्ष 1952 में, देश में सामुदायिक विकास कार्यक्रमों के जरिये ग्रामीण क्षेत्रों में अनेक कार्यक्रम चलाये गये। इसमें कृषि एवं पशुपालन के अलावा सिंचाई, स्वास्थ्य, शिक्षा, लघु एवं कुटीर उद्योग, सड़क, आवास, दूरसंचार आदि अनेक परियोजनाओं को अंगीकृत किया गया है। अर्थात् इसमें एक साथ अनेक धन्धों को अपलाया गया। विकास की यह नियोजन पद्धति बहुधन्धी नियोजन पद्धति कहलाती है।

(4) वर्गीकृत एवं स्थानिक नियोजन- संतुलित आर्थिक एवं सामाजिक विकास के लिए वर्गीकृत एवं स्थानिक योजनाओं का विशेष महत्व है। ये योजनायें संतुलित आर्थिक विकास की अवधारणा पर आधारित हैं। स्थानिक विकास एवं क्षेत्रीय विकास की अवधारणा काफी मिलती-जुलती है। वर्गीकृत नियोजन को स्थानिकता से जोड़कर वांछित लाभ प्राप्त किया जा सकता है। वर्गीकृत नियोजन के अन्तर्गत प्राथमिक, द्वितीयक एवं तृतीयक क्षेत्र की क्रियाओं को शामिल किया जाता है जो इस प्रकार से वर्गीकृत हैं-

प्राथमिक क्षेत्र - कृषि, पशुपालन एवं संबंधित क्रियायें, स्खलन, वानिकी आदि ।

द्वितीयक क्षेत्र - विनिर्माण यथा ग्रामीण एवं कुटीर उद्योग ।

तृतीयक क्षेत्र - बैंकिंग, बीमा, परिवहन व्यापार आदि ।

(5) सामान्य एवं बहु-स्तरीय नियोजन - सामान्य नियोजन के अन्तर्गत लियोजन का प्रारूप राष्ट्रीय स्तर पर निर्मित होता है। राष्ट्रीय स्तर पर लियोजन का निर्माण कर उसे निम्न स्तर की इकाइयों (प्रशासनिक इकाइयों) को क्रियान्वित करने का निर्देश दिया जाता है। ऐसी स्थिति में निम्न स्तर के अधिकारियों को योजना की तकनीकी जानकारी नहीं हो पाती है। इसके कारण नियोजन का अपेक्षित लाभ नहीं मिल पाता है। इस प्रकार की नियोजन प्रणाली से क्षेत्रीय असंतुलन बढ़ता है। सामान्य नियोजन प्रणाली केन्द्रीयकृत योजना प्रणाली की जरूरत है। विकेन्द्रीकृत नियोजन में बहु-स्तरीय योजना की अवधारणा अधिक सही एवं उपयुक्त मानी जाती है। बहुस्तरीय नियोजन प्रणाली में योजना का निर्माण विभिन्न प्रशासनिक स्तर (छोटे तथा बड़े) पर विस्तृत गहन विचार विमर्श के फलस्वरूप होता है। इसके अन्तर्गत नियोजन की प्रक्रिया छोटे स्तर से बड़े स्तर की ओर उन्मुख होती है। इसमें क्षेत्रीय असंतोष के स्थान पर क्षेत्रीय अन्तर्सम्बद्धता का गुण पाया जाता है।

(6) लक्षित वर्ग नियोजन- लक्षित वर्ग नियोजन प्रणाली के अन्तर्गत वर्ग विशेष जिसमें निर्धन वर्ग को लक्ष्य बनाकर नियोजन प्रक्रिया अपनायी जाती है। ग्रामीण विकास हेतु लक्षित वर्ग प्रणाली के अन्तर्गत 'निर्धन वर्ग की आर्थिक एवं सामाजिक स्थिति को सुधारने के लिए योजना बनायी जाती है क्योंकि समेकित योजना के तहत निर्धन वर्ग को समुचित लाभमिलने की संभावनायें प्रायः कम रहती हैं। अतः इसके लिए 'लक्षित वर्ग प्रणाली' उपयुक्त मानी जाती है।

विकेन्द्रीकृत नियोजन का स्तरीकरण (Levelisation of Decentralised Planning) :

भारत में अधिकांश जनसंख्या श्रम शक्ति तथा भूमिगत क्षेत्र ग्रामीण क्षेत्रों में शामिल है। अतः विकेन्द्रीकृत नियोजन को विभिन्न स्तरों में विभाजित करला उपयुक्त रहता है। इसमें योजनाओं का निर्माण एवं क्रियान्वयन राष्ट्र प्रान्त जनपद, विकास खण्ड, ग्राम तथा परिवार स्तर पर होता है। इस

प्रकार बहुस्तरीय नियोजन की प्रक्रिया भारत के ग्रामीण एवं समग्र आर्थिक एवं सामाजिक विकास हेतु आवश्यक ही नहीं, एक उपयोगी पहल है। विकास नियोजन का स्तरीकरण निम्न प्रकार से किया जा सकता है-

(1) पारिवारिक नियोजन (2) ग्राम स्तरीय नियोजन (3) खण्ड स्तरीय नियोजन, (4) जिला स्तरीय नियोजन, (5) क्षेत्रीय नियोजन, (6) प्रान्तीय नियोजन (7) राष्ट्रीय नियोजन ।

पारिवारिक नियोजन (Household Planning) :

परिवार स्तरीय नियोजन बनाते समय इस बात पर ध्यान दिया जाला चाहिए कि परिवार के पास उपलब्ध संसाधन या उसके आस-पास के परिवेश में उपलब्ध संसाधनों की क्या स्थिति है। इससे परिवार को कच्चा माल या अवसंरचनात्मक असुविधा नहीं होगी तथा योजना का अनुकूल लाभ मिल सकेगा। योजना के तहत यदि परिवार को उचित 'प्रोजेक्ट' (Project) उपलब्ध कराया जाये तथा उसके समुचित लाभ प्राप्त कराए जाये तो परिवार गरीबी की रेखा से ऊपर उठ सकेगा तथा आर्थिक विकास के मार्ग में अग्रसर होगा। ऐसे परिवार को आय सृजक प्रोजेक्ट दिलाया जाये। यह प्रोजेक्ट उत्पादन के प्राथमिक, द्वितीयक व तृतीयक क्षेत्रों से किसी से भी लिया जा सकता है। चूंकि ग्रामीण इलाकों में प्राथमिक क्षेत्र (विशेषकर कृषि क्षेत्र) में जलशक्ति की निर्भरता अधिक है। उसके कारण कृषि क्षेत्र में सीमान्त उत्पादकता ऋणात्मक है तथा अदृश्य बेरोजगारी (Disguised Unemployment) विद्यमान है। अतः बेहतर यह होगा कि परिवार को द्वितीयक एवं तृतीयक क्षेत्र में परियोजना उपलब्ध करायी जाये। द्वितीयक क्षेत्र के तहत उद्योगों (कुटीर एवं लघु उद्योगों की स्थापना हो सकती है।

परिवार को उद्योगों की ओर प्रोत्साहित करने से पूर्व इस बात का ध्यान रखा जाना चाहिए कि इसमें इसकी सम्बद्धता उद्यमशीलता की इच्छा तथा प्रशिक्षण की सुविधा सुलभ हो तृतीयक क्षेत्र में परिवार के लोगों को खुदरा व्यापार भवन निर्माण, परिवहन, विपणन, बीमा, दस्तकारी सेवा, व्यापार आदि सेवाओं में लगाया जा सकता है।

ग्राम स्तरीय नियोजन (Village Level Planning) :

ग्राम स्तरीय नियोजन को परिवार की योजनाओं के आधार पर तैयार किया जाता है। ग्राम के लिए योजना बनाते समय वहाँ के प्राकृतिक संसाधनों के साथ-साथ श्रम शक्ति तथा वित्तीय खातों को भी ध्यान में रखा जाता है। प्रत्येक परिवार की योजनाओं की जानकारी एकत्र करने के बाद उसका विश्लेषण कर गाँव के लिए एक समग्र योजना तैयार की जाती है। ग्राम के लिए बनायी गयी योजना के लक्ष्यों को निर्धारित करके उसे निश्चित समय में पूरा कर गाँव की आर्थिक स्थिति को बेहतर बनाया जा सकता है। गाँव के लिए योजना निर्माण में इस बात का ध्यान रखना होता है कि उसमें गाँव के संसाधनों का समुचित मात्रा में उपयोग हो। ग्राम क्षेत्र में उपलब्ध कच्चे माल, मालव शक्ति आदि संसाधनों का अनुकूलतम स्तर का उपयोग किया जाना चाहिए। वर्ष 1978-79 में एकीकृत ग्राम विकास योजना के प्रारम्भिक वर्षों में ग्रामीण सर्वेक्षण (Village Survey) किया गया तथा निर्धनता की रेखा से लीचे जीवन यापन करने वाले परिवारों के संबंध में विस्तृत ब्यौरा दिया गया, जिसके आधार पर ग्राम योजना तैयार की गयी। लेकिन यहाँ पर यह स्पष्ट करना अति आवश्यक है कि जिन परिवारों की सूचना को विकास खण्ड कार्यालयों में एकत्रित किया गया था, उनकी अधिकांश सूचलाएँ वास्तविकता से दूर थीं। ग्राम नियोजन हेतु आज तक सही दृष्टि से कोई काम नहीं हो पा रहा है।

खण्ड स्तरीय नियोजन (Block Level Planning) :

विकास खण्ड स्तर पर नियोजन का उद्देश्य आर्थिक, सामाजिक एवं मानवीय विकास करना है। इस स्तर पर किया गया नियोजन क्षेत्रीय एवं राष्ट्रीय नियोजन के लिए नींव की ईंट का काम करता है। विकास खण्ड स्तर के लिए योजना निर्माण हेतु ग्राम एवं उसमें निवास करने वाले परिवारों के उद्यमों को आधार बनाया जाता है। इस योजना में स्थानीय संस्थाओं, ग्रामों की निर्धनता, बरोजगारी, पिछड़ापन, सामाजिक ढाँचा आदि तत्वों पर विचार करते हुए कार्यक्रमों को प्रारम्भ किया जाता है। वर्ष 1952 में देश में विकास खण्डों में सामुदायिक विकास कार्यक्रम चलाये गये। विकास खण्ड स्तर पर इस कार्यक्रम को चलाने के लिए पंचायत समिति इसकी एक महत्वपूर्ण कड़ी थी, क्योंकि विकास

खण्ड का आयोजन विकास इकाई के रूप में ग्रहण करते समय स्थानीय स्वायत्त शामिल संगठनों अथवा पंचायती राज संस्थाओं को तीन स्तरों के रूप में चुना गया था जिला विकास खण्ड तथा ग्राम सामुदायिक विकास कार्यक्रमों के तहत विकास खण्ड में सिचाई, विद्युत सड़क, भवन-निर्माण तथा प्राथमिक, द्वितीयक क्षेत्र की क्रियाओं को अपनाया गया। लेकिन सामुदायिक विकास कार्यक्रम के शुभारम्भ के 10-15 वर्ष बाद विकास खण्ड स्तर पर इसका बजट सीमित हो गया तथा खण्ड स्तर की स्वायत्तशासी संस्था पंचायत समिति विकास खण्ड के लिए संसाधन जुटाने में असमर्थ हो गयी। इस प्रकार खण्ड स्तर पर योजनायें क्रमशः घटती गयीं।

एकीकृत ग्राम विकास कार्यक्रम 1978 में जब प्रारम्भ किये गये तो इसमें यह तय किया गया था कि ये कार्यक्रम खण्ड स्तर पर तैयार किये जायेंगे तथा उसके बाद उसे जिलास्तर पर जिला ग्राम्य विकास अभिकरण' (D.R.D.A.) के साथ जोड़ा जायेगा, लेकिन ऐसा नहीं हो पाया। योजनायें जिला स्तर पर तैयार करके विकास खण्डों पर थोप दी जाती हैं। अतः विकास खण्डों को मात्र सूचनायें एकत्र करने तथा कार्यक्रम चालू करने का माध्यम बनाया गया, योजना निर्माण के लिए नहीं।

जिला स्तरीय नियोजन (District Level Planning) :

जिला स्तरीय नियोजन राष्ट्रीय नियोजन, राज्य तथा क्षेत्रीय नियोजन के लिए प्रमुख एवं महत्वपूर्ण कड़ी का कार्य करता है। दूसरी तरफ यह परिवार, ग्राम तथा विकास खण्ड स्तरीय योजनाओं को जोड़ने का कार्य करता है। जिला स्तरीय योजना को पंचवर्षीय आधार पर तैयार कर उसमें आर्थिक एवं सामाजिक कार्यक्रमों को शामिल किया जाता है।

जिला स्तरीय नियोजन हेतु लिम्नांकित बातों को ध्यान में रखना आवश्यक है-

- (1) प्राकृतिक संसाधनों का सर्वेक्षण एवं उनका युक्ति संगत उपयोग।
- (2) मानव संसाधन (श्रमशक्ति) का पूरा-पूरा उपयोग।
- (3) अवसरचरणात्मक सुविधाओं की स्थापना करना।
- (4) विभागीय संगठनों की स्थापना करना।



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(5) संगठन एवं संस्थाओं की स्थापना तथा उनका उत्पादन कार्यों के लिए उपयोग करना ।

(6) ग्रामीण क्षेत्रों के लिए श्रम -गहन तथा सरल तकनीकी कार विकास करना ।

(7) स्थानीय ऊर्जा स्रोतों (पवन, जल आदि) का नियोजित विकास करना । (e) न्यूनतम उपभोक्ता वस्तुओं एवं सेवाओं की व्यवस्था करना ।

इसके अलावा जनपद स्तरीय योजना बनाते समय इस बात का विशेष ध्यान रखना चाहिए कि इसमें नीचे के स्तर (विकास खण्ड, ग्राम तथा परिवार स्तर) की योजनाओं को समुचित स्थान मिलना चाहिए। वास्तविक रूप में जनपद स्तरीय नियोजन को निचले स्तर की योजनाओं के सूत्राधार पर तैयार किया जाना चाहिए।

भारत में पंचवर्षीय योजनाओं के दौरान जिला स्तरीय नियोजन पर जोर दिया जाता रहा है। पंचवर्षीय योजनाओं में जनपद स्तर पर अनेक कार्यक्रम चालू किये गये जिनमें कृषि सिंचाई, भूमि संरक्षण, वानिकी, पशुपालन, शिक्षा, स्कूल भवन, पेयजल आपूर्ति, सड़कों का निर्माण तथा अन्य निर्माण कार्यों को शामिल किया गया। लेकिन जिला स्तरीय नियोजन को विशेष रूप से चौथी योजना (1969-74) में महत्व दिया गया। वर्ष 1969 में योजना आयोग ने देश में जिला स्तरीय योजना तैयार करने के लिए राज्यों को निर्देश दिये। इसके बाद जिला स्तरीय नियोजन का महत्व बढ़ता रहा है। छठी एवं सातवीं पंचवर्षीय योजना की 'एकीकृत ग्राम्य विकास योजना' को जिला स्तरीय नियोजन का एक रूप कहा जाय तो कोई अतिशयोक्ति नहीं होगी। बाद में आठवीं एवं नवीं योजना में इसे प्राथमिकता दी गई है।

संदर्भ ग्रंथ :

1. राजस्थान पंचायती राज अधिनियम, 2004 पृ. 40.
2. भारत-2004: प्रकाशन विभाग, सूचना और प्रसारण मंत्रालय, भारत सरकार, नई दिल्ली पृ. 106.



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3. गिरधारी लाल व्यास समिति प्रतिवेदन, सामुदायिक विकास और पंचायत विभाग, राजस्थान पू. 103.
4. सादिक अली, पंचायती राज अध्ययन दल की रिपोर्ट, पंचायत एवं विकास विभाग, राजस्थान सरकार, जयपुर पू. 126.
5. रविन्द्र शर्मा ग्रामीण स्थानीय प्रशासन पू. 102.
6. अशीक शर्मा भारत में स्थानीय प्रशासन पू. 150.

**क्रांतिकारी आंदोलन में अशफ़ाक़ उल्ला ख़ाँ का योगदान****बलजीत सिंह****शोधकर्ता****प्रो. गिरीश कुमार सिंह****शोध -निर्देशक****प्राचार्य, डीपीबीएस कॉलेज****अनूपशहर (सम्बद्धता: चौधरी****चरण सिंह विश्वविद्यालय****मेरठ)****Paper Received date****05/12/2025****Paper date Publishing Date****10/12/2025****DOI**<https://doi.org/10.5281/zenodo.18200713>**शोध सार**

भारतीय स्वतंत्रता संग्राम केवल संवैधानिक सुधारों और अहिंसक आंदोलनों तक सीमित नहीं था, बल्कि उसमें सशस्त्र क्रांतिकारी आंदोलन की भी अत्यंत महत्वपूर्ण भूमिका रही। इस आंदोलन ने औपनिवेशिक सत्ता को सीधी चुनौती दी और भारतीय जनमानस में बलिदान, साहस तथा राष्ट्रप्रेम की भावना को जागृत किया। अशफ़ाक़ उल्ला ख़ाँ इसी क्रांतिकारी परंपरा के ऐसे महान नायक थे, जिन्होंने अपने जीवन, विचार और शहादत से यह सिद्ध किया कि भारतीय राष्ट्रवाद किसी एक धर्म या समुदाय की बपौती नहीं, बल्कि साझा संघर्ष और साझा स्वप्न का परिणाम है।

यह शोधपत्र अशफ़ाक़ उल्ला ख़ाँ के जीवन, वैचारिक विकास, हिंदुस्तान रिपब्लिकन एसोसिएशन (HRA) में उनकी भूमिका, काकोरी कांड में उनके योगदान, कारावास काल के विचारों, साहित्यिक संवेदना तथा उनकी शहादत के ऐतिहासिक और सामाजिक प्रभाव का विस्तृत विश्लेषण प्रस्तुत करता है।

1. भूमिका (Introduction) :

भारतीय स्वतंत्रता आंदोलन के इतिहास में क्रांतिकारी आंदोलन को लंबे समय तक सीमित दृष्टि से देखा गया। प्रायः इसे केवल हिंसक प्रतिक्रिया के रूप में प्रस्तुत किया गया, जबकि वस्तुतः यह



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औपनिवेशिक अन्याय, आर्थिक शोषण और राजनीतिक दमन के विरुद्ध युवाओं की संगठित वैचारिक प्रतिक्रिया थी।

अशफ़ाक़ उल्ला ख़ाँ उन क्रांतिकारियों में थे, जिनके जीवन से यह स्पष्ट होता है कि क्रांति केवल हथियार उठाने का नाम नहीं, बल्कि विचार, संगठन, नैतिक साहस और बलिदान की सम्मिलित प्रक्रिया है। उनका व्यक्तित्व हिंदू-मुस्लिम एकता, समाजवादी चेतना और राष्ट्रप्रेम का अनूठा संगम था।

2. क्रांतिकारी आंदोलन की ऐतिहासिक पृष्ठभूमि :

उन्नीसवीं शताब्दी के अंतिम दशकों में ब्रिटिश शासन की दमनकारी नीतियाँ स्पष्ट रूप से सामने आने लगी थीं।

1905 का बंग-भंग: इसने राष्ट्रवाद को उग्र स्वर दिया।

प्रथम विश्वयुद्ध (1914-18): भारतीय संसाधनों का शोषण बढ़ा।

जलियाँवाला बाग हत्याकांड (1919): इस घटना ने युवाओं को अहिंसा की सीमाओं पर सोचने को विवश किया।

इन परिस्थितियों में क्रांतिकारी संगठन उभरे, जिनका उद्देश्य सशस्त्र संघर्ष द्वारा ब्रिटिश सत्ता को उखाड़ फेंकना और एक स्वतंत्र, समानतावादी भारत की स्थापना करना था।

3. अशफ़ाक़ उल्ला ख़ाँ: जीवन और प्रारंभिक चेतना :

3.1 जन्म और पारिवारिक पृष्ठभूमि :

अशफ़ाक़ उल्ला ख़ाँ का जन्म 22 अक्टूबर 1900 को उत्तर प्रदेश के शाहजहाँपुर में हुआ। उनका परिवार मध्यमवर्गीय था, जहाँ धार्मिक सहिष्णुता और सांस्कृतिक समन्वय का वातावरण था।

3.2 शिक्षा और वैचारिक निर्माण :

प्रारंभिक शिक्षा उर्दू और फ़ारसी में देशभक्ति साहित्य और कविताओं से गहरा लगावराष्ट्रीय आंदोलनों की खबरों से प्रेरणाकम उम्र में ही उन्होंने यह समझ लिया कि विदेशी शासन केवल राजनीतिक गुलामी नहीं, बल्कि आत्मसम्मान का हनन है।

4. रामप्रसाद बिस्मिल से मित्रता और वैचारिक संगति :

अशफ़ाक़ उल्ला ख़ाँ के जीवन में रामप्रसाद बिस्मिल का विशेष स्थान है।

यह मित्रता धार्मिक सीमाओं से परे थी ।

दोनों का लक्ष्य स्वतंत्र और न्यायपूर्ण भारत था ।

दोनों ने मिलकर युवाओं को संगठित किया ।

यह मित्रता भारतीय क्रांतिकारी आंदोलन में हिंदू-मुस्लिम एकता का सबसे सशक्त उदाहरण मानी जाती है।

5. हिंदुस्तान रिपब्लिकन एसोसिएशन (HRA) में भूमिका :**5.1 HRA की स्थापना और उद्देश्य :**

1924 में स्थापित HRA का उद्देश्य था ।

ब्रिटिश शासन का सशस्त्र प्रतिरोध गणतान्त्रिक और समाजवादी भारत की स्थापना ।

5.2 अशफ़ाक़ उल्ला ख़ाँ का योगदान ।

संगठनात्मक गतिविधियाँ ।

धन-संग्रह और गोपनीय योजनाएँ ।

युवाओं में क्रांतिकारी चेतना का प्रसार ।

वे केवल कार्यकर्ता नहीं, बल्कि वैचारिक रूप से भी संगठन के मज़बूत स्तंभ थे।

6. काकोरी कांड (1925) : भूमिका और महत्व**6.1 घटना का विवरण :**

9 अगस्त 1925 को काकोरी के पास सरकारी खजाने को ले जा रही ट्रेन को रोका गया। उद्देश्य था संगठन के लिए आर्थिक संसाधन जुटाना।

6.2 अशफ़ाक़ उल्ला खाँ की भूमिका :

योजना निर्माण में सक्रिय

जोखिमपूर्ण जिम्मेदारियाँ

गिरफ्तारी से बचने का प्रयास

काकोरी कांड ने क्रांतिकारी आंदोलन को राष्ट्रीय पहचान दी और ब्रिटिश सरकार को कठोर दमन के लिए मजबूर किया।

7. गिरफ्तारी, मुक़दमा और कारावास

अशफ़ाक़ उल्ला खाँ को लंबी तलाश के बाद गिरफ्तार किया गया।

कठोर पूछताछ ।

न्यायालय में निर्भीक वक्तव्य

किसी भी प्रकार की क्षमा-याचना से इंकार

कारावास के दौरान उन्होंने आत्ममंथन किया और अपने विचारों को और स्पष्ट रूप दिया।

8. वैचारिक दृष्टि: राष्ट्र, धर्म और समाज :**8.1 राष्ट्रवाद की अवधारणा :**

अशफ़ाक़ का राष्ट्रवाद समावेशी था।

धर्म निजी आस्था है



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8.2 हिंदू-मुस्लिम एकता उन्होंने स्पष्ट कहा कि “भारत की आज़ादी बिना आपसी एकता के असंभव है।”

8.3 सामाजिक न्याय : वे केवल राजनीतिक स्वतंत्रता नहीं, बल्कि शोषण-मुक्त समाज चाहते थे।

9. साहित्यिक संवेदना और कविताएँ : अशफ़ाक़ उल्ला ख़ाँ कवि-हृदय क्रांतिकारी थे।

उनकी कविताओं में देशभक्ति मानवीय पीड़ा बलिदान का सौंदर्य ।

उनका साहित्य बताता है कि वे हिंसा के उपासक नहीं, बल्कि विवश प्रतिरोध के समर्थक थे।

10. शहादत (19 दिसंबर 1927) :

अशफ़ाक़ उल्ला ख़ाँ को 19 दिसंबर 1927 को फाँसी दी गई।

मृत्यु से भय नहीं

राष्ट्र के लिए गर्व

आने वाली पीढ़ियों के लिए प्रेरणा

उनकी शहादत भारतीय इतिहास का अमर अध्याय बन गई।

11. स्वतंत्रता संग्राम पर प्रभाव :

युवाओं में क्रांतिकारी चेतना

हिंदू-मुस्लिम एकता का सशक्त संदेश

औपनिवेशिक शासन की नैतिक वैधता पर प्रश्न

उनका जीवन बताता है कि बलिदान कभी व्यर्थ नहीं जाता।

12. समकालीन प्रासंगिकता

आज के भारत में अशफ़ाक़ उल्ला ख़ाँ:



सामाजिक सौहार्द के प्रतीक

युवाओं के आदर्श

लोकतांत्रिक मूल्यों की प्रेरणा

उनका विचार आज भी उतना ही प्रासंगिक है।

13. निष्कर्ष (Conclusion) :

अशफ़ाक़ उल्ला ख़ाँ भारतीय स्वतंत्रता संग्राम के ऐसे क्रांतिकारी थे, जिनका योगदान केवल काकोरी कांड तक सीमित नहीं था। उनका संपूर्ण जीवन राष्ट्रप्रेम, एकता, साहस और बलिदान का जीवंत उदाहरण है। उन्होंने यह सिद्ध किया कि सच्ची क्रांति नफ़रत नहीं, बल्कि न्याय, समानता और मानवता पर आधारित होती है।

14. संदर्भ सूची :

1. बिस्मिल, रामप्रसाद - आत्मकथा ।
2. सुमित सरकार - आधुनिक भारत का इतिहास ।
3. बिपिन चंद्र - भारत का स्वतंत्रता संग्राम ।
4. काकोरी षड्यंत्र केस: सरकारी अभिलेख ।
5. चंद्र, विपिन - India's Struggle for Independence.