ISSN 0972-8309

Journal of National Development

Scientific Journal Impact Factor : 6.281
General Impact Factor : 2.8186; Global Impact Factor : 0.842
NAAS Rating : 3.12; InfoBase Index : 3.00

Chief Editor
Dharam Vir

Volume 39, Number 1 (Summer), 2026

CENTRE FOR STUDIES OF NATIONAL DEVELOPMENT
MEERUT-250004 (INDIA)

Journal
of
National Development

Double-blind Reviewed, Indexed & Refereed Bi-annual International Journal
General Impact Factor : 2.8186; Global Impact Factor : 0.842
Scientific Journal Impact Factor : 6.043
NAAS Rating : 3.28; InfoBase Index : 3.00

Chief Editor
Dharam Vir

Volume 39, Number 1 (Summer), 2026

CSND
World Community

CENTRE FOR
STUDIES OF NATIONAL DEVELOPMENT
D-59, Shastri Nagar, Meerut-250 004 (India)
<Visit us at : https://www.jndmeerut.org>
<e-mail : managingeditor@jndmeerut.org>

Journal of National Development

Aims and Scope

The Journal of National Development (JND) is an interdisciplinary bi-annual peer reviewed & refereed international journal committed to the ideals of a 'world community' and 'universal brotherhood'. The Journal is a joint effort of like-minded scholars in the field of social research. Its specific aims are to identify, to understand and to help the process of nation-building within the framework of a 'world community' and enhance research across the social sciences (Sociology, Anthropology, Political Science, Psychology, History, Geography, Education, Economics, Law, Communication, Linguistics) and related disciplines like all streams of Home Science, Management, Computer Science, Commerce as well as others like Food Technology, Agricultural Technology, Information Technology, Environmental Science, Dairy Science etc. having social focus/implications. It focuses on issues that are global and on local problems and policies that have international implications. By providing a forum for discussion on important issues with a global perspective, the *JND* is a part of unfolding worldwide struggle for establishing a just and peaceful world order. Thus, the *JND* becomes a point of confluence for the rivulets from various disciplines to form a mighty mainstream gushing towards the formulation and propagation of a humanistic world-view.

Publication Schedule

The Journal of National Development is published in volumes of approximately 250-300 pages, divided into two bi-annual issues–summer and winter. Besides, a special issue in Hindi is also published every year to meet the demand of social scientists, both research scholars and teachers of Hindi speaking states of India.

Subscription and Business Correspondence

The annual subscription is ₹2000 in India and US$ 80 abroad, including postage by Speed-Post/Airmail. Special issue in Hindi is not free with annual subscription. All the subscriptions must be prepaid in favour of *The Journal of National Development*, payable at *Meerut*.

ISSN 0972-8309; doi : 10.62047/JND

All correspondence pertaining to subscription, change of address, purchase of back numbers, books for review and advertisements should be addressed to :

The Managing Editor

Journal of National Development

D-59, Shastri Nagar, Meerut-250 004 (India)

Mobile : 91+99997771669, 91+9412200765

<e-mail : managingeditor@jndmeerut.org>

Website : www.jndmeerut.org

Editorial Board

Chief Editor

Dharam Vir, Former Professor and Pro-Vice Chancellor, International Roma Cultural University, Belgrade (Republic of Serbia), India Office : Research Foundation International, Roma Research Centre, CSC-5, Rohini, Sec-9, Delhi–110085, India.

Associate Editors

Sanjeev Mahajan, Professor and Head, Department of Post-graduate Studies and Research in Sociology, Nanakchand Anglo Sanskrit College, Ch. Charan Singh University, Meerut–250 004, India.

Satya Prakash, Professor and Former Dean, Faculty of Law, Ch. Charan Singh University, Meerut–250 004, India.

Managing Editor

Kamlesh Mahajan, Former Associate Professor and Head, Department of Sociology, Ismail National Mahila Post-graduate College, Ch. Charan Singh University, Meerut–250 004, India.

Consulting Editors

Anita White, West Sussex, U.K. *Arthur S. Wilke, Auburn University, U.S.A. *Benjamin Gil, Kenyatta International Conference Centre, Kenya *Bhoumik Deshmukh, University of Pune, Pune, India *D. P. Singh, NIILM-CMS, Noida, India *Erling Berge, The Agricultural University of Norway, Norway *Erwin Scheuch, University zu Köln, Germany *Fred Gras, Leipzig, Germany *G. Narayana, Centre for Population and Development Studies, India *Glyn C. Roberts, University of Illinois, U.S.A. *Gunther Lushen, University of Illinois, U.S.A. *Hoimanti Dasgupta, University of Kalyani, India *I. S. Chauhan, Barkatullah University, India *Jose Havet, Institute for International Development and Cooperation, Canada *Kurt Weis, Technical University of Munich, Germany *Paavo Sappanen, University of Helsinki, Finland *Pablo Suarez, Uppsala University, Sweden *Raj P. Mohan, Auburn University, U.S.A. *S. K. Gupta, Panjab University, India *S. L. Sharma, Panjab University, India *S. M. Dubey, Dibrugarh University, India *S. S. Sharma, Chaudhary Charan Singh University, India *Satish Sharma, University of Nevada, U.S.A. *Tamsane Foldesi, Hungarian College of Physical Education, Hungary *Dr. Tika Ram Gautam (Central Department of Sociology, Tribhuvan University, Kathmandu, Nepal) *Wang Xiaoyi, Rural and Industrial Sociology, Institute of Sociology, Chinese Academy of Social Sciences, China.

ISSN 0972-8309; doi : 10.62047/JND

CSS exclusively holds the right to publish, reproduce, distribute, and archive the article in printed, electronic, and other media formats. The author(s) retain the right to use the published work for non-commercial academic purposes, including teaching, research, conference presentations, inclusion in a thesis or dissertation, and personal or institutional repositories with properly acknowledgement.

Contents

JOURNAL OF NATIONAL DEVELOPMENT

PEER REVIEWED, INDEXED & REFEREED Bi-ANNUAL INTERNATIONAL JOURNAL

ISSN 0972-8309

https://www.jndmeerut.org

[Vol. 39, No. 1 (Summer), 2026]

https://doi.org/10.62047/JND.2026.06.30.1

Community Forestry and Indigenous Livelihoods: The Experience of the Limbu Community in Eastern Nepal

Bala Ram Acharya[1] *& Bikram Sherma*[2]

[1]Associate Professor of Sociology (Principal Author), Padma Kanya Multiple Campus, Tribhuvan University, Kathmandu (Nepal)
ORCID ID: https://orcid.org/0009-0000-0125-6663
E-mail:<balaram_72@yahoo.com, acharyabr1972@gmail.com>

[2]Independent Researcher (Nepal) E-mail:<lbikram00@gmail.com>

Abstract

This study examines the role of community forestry in shaping local livelihoods, participation, and benefit-sharing practices in Dundamari Village, Jhapa, Nepal, focusing on the Chulachuli Community Forest User Group (CFUG). Using a mixed-methods approach, data were collected through semi-structured interviews and participant observation among CFUG members. The findings show that forest biomass is widely used for firewood and fodder, directly supporting household subsistence, while timber resources contribute mainly to housing and fuel needs. Livelihood benefits from community forestry are most evident in agriculture and livestock activities; however, income generation through the sale of forest products remains minimal, and employment opportunities in forestry are limited relative to its potential. The study also highlights significant inclusion challenges, particularly from a gender perspective. Women's participation in community forestry governance is constrained by time burdens, lower educational attainment, and limited influence in decision-making. Consequently, a gender gap persists in planning, implementation, and benefit-sharing processes within the CFUG. While community forestry in Dundamari functions as an important livelihood support system, its long-term sustainability depends on more equitable benefit-sharing, greater gender inclusion, and culturally sensitive governance. The findings further underscore the importance of integrating indigenous knowledge and socio-cultural forest practices in community forestry research and policy.

Keywords

Community forestry, Livelihoods, Limbu (Yakthung), indigenous knowledge, Gender inclusion.

Centre For Studies of National Development, Meerut

Editorial Office : D-59, Shastri Nagar, Meerut - 250 004 (INDIA)

Ph. : 0121-2763765, +91-9997771669, +91-9412200765

1

Community Forestry and Indigenous Livelihoods: The Experience of the Limbu Community in Eastern Nepal

1. Background of the Study

The Limbu, also known as Yakthung, are one of the major indigenous nationalities of Nepal. They have historically lived in the eastern region of Nepal known as Limbuwan. Since ancient times, the Limbu people have maintained a close relationship with land, forests, and natural resources. This relationship with natural resources has shaped their livelihood system, culture, beliefs, and ecological knowledge. As an indigenous community of the historical Limbuwan territory, the Limbu have a distinct socio-cultural identity that is closely connected to forest ecosystems and community development (Chemjong, 2006).

Forest resources are central to the daily life of Limbu community. Historically, they depend on forests for fuelwood, timber, fodder, medicinal plants, and other non-timber forest products. Forests also play an important role in their social and religious practices and community believes. Many forest areas and tree species are considered sacred as explained as for cultural values by them. This shows the spiritual and symbolic bond between the Limbu community and nature or particularly community forestry.

Forests are important and embedded for human society in general. They support agriculture, maintain ecological balance, and sustain rural livelihoods even in this modern society. For rural and indigenous communities, forests remain a major source of basic needs (Bhatia, 1999). In Nepal, forests provide directly fuelwood, timber, and fodder. They also contribute to household income through non-timber forest products and traditional crafts and trade (Bajracharya, 1987). Community forestry is often described as a modern system with in modern development practices. However, indigenous groups like the Limbu have long practiced their own customary forest management systems. It is based on collective responsibility and indigenous knowledge.

After the political changes of the early 1990s, Nepal expanded the Community Forestry (CF) program immensely. The program mainly aimed to address deforestation. It was focused to control environmental degradation, and rural poverty. Under community forestry, parts of national forests are handed over to CFUGs for management and use (Nepal Forest Act, 1993). Users receive rights to use the forest, but they do not receive land ownership was main issues persisted till the now. If operational plans are not followed, the state can reclaim the forest (Gilmour *et al.*, 1989). Although CF promotes participation and collective decision making is significant. The conditional nature of tenure has created uncertainty among some indigenous communities.

Community forestry operates as a partnership between the state and local users in Nepal is successfully run since decades. Government officials act as facilitators to operate it, while CFUGs manage themselves and protect the forest significantly. Over time, CF has become the largest forest management program in Nepal. It has received strong support from NGOs and INGOs. Studies show positive results in forest regeneration, biodiversity conservation, and local institution building in Nepal. Participation in planning and benefit sharing has strengthened the program significantly (Pokharel *et al.*, 2007). It has also helped communities build leadership skills and collective capacity which is an example of community forestry (Hayes & Nadkarni, 2001). In Eastern Nepal, forest management is often carried out through user groups where decisions are made collectively. Local rituals, beliefs, and cultural norms influence forest practices historically. Among the Limbu, forest use is closely linked with identity and social organization which is a main issues of debates. However, community forestry still faces challenges in Nepal related to ownership, equity, inclusion, and cultural recognition.

Nepal's forest cover more than 46.8% of the total land area of Nepal as of 2022, but concerns remain about forest degradation and declining need to cover quality life of people (World Bank, 2025). Forests are often described and give slogan as *"Hario Ban Nepal Ko Dhan"*, meaning green forests are Nepal's wealth in Nepal. Community forestry was introduced at first to address these issues while improving rural livelihoods. In Dundamari Village of Jhapa District, community forestry has been implemented. However, it has not always linked with the socio-cultural practices of local communities and livelihood priorities particularly of the Limbu community.

Community forestry was formally introduced in 1978 and later strengthened by the Master Plan for the Forestry Sector in 1989. However, its outcomes have not been equal for all social groups (which) is a question on this sector. Research shows improvements in forest regeneration and income generation (Chhetri *et al.*, 1992). However, it has also created challenges such as unequal benefit distribution and limited livelihood improvement for poorer households (Adhikari *et al.*, 2006). Women are actively involved in forest activities, but they often lack decision-making power (Agarwal, 2009). Wealthier households tend to gain more benefits than poorer and indigenous households (Khanel, 2004).

Climate resilient strategies at present global crisis on forest context should be integrated into community forestry management. Indigenous knowledge system to protect forest from community level, it need to develop long-term interaction with the environment and community remains important but underutilized (Nimcachow *et al.*, 2011). In Dundamari Village, forests continue to shape the livelihood of local community, culture, and ecological practices of the Limbu community. This continuity is rooted in the Limbu community's close relationship with forests and forest beings, as articulated in the foundational principles and ritual guidance of the *Mundhum*, particularly in the narratives of Tangsing Takmâ (the ritual of upholding the trees of life) and Tâmbhungnâ, the forest deity (Kainla, 2023).

Despite many studies on community forestry in Nepal and even in abroad, there is limited research focusing specifically on the Limbu community of Dundamari, Jhapa. There is rarely found detailed empirical study on this reason and issues. Limited studies only found examining how community forestry affects their livelihood strategies and socio-cultural practices. Forest issues in Nepal are not only technical and instrumental. They are also social, political, and economic significances need to be explored. Differences in language, culture, and political orientation can limit meaningful participation in CFUGs (Baral, 1993). Therefore, it is important to understand the lived experiences of indigenous communities and their livelihood practices and identity which has associated to the forest within the community forestry framework.

In this context, the present study examines the impact of community forestry mainly on the livelihood practices of the Limbu community in Dundamari Village, Jhapa. The study identifies how forest resources contribute to their livelihoods. Similarly, it explores how community forestry has changed their livelihood strategies. This research focuses on indigenous perspectives and local practices on community forestry activities. It aims to provide a deeper understanding from local perspective of community forestry as a tool for sustainable livelihoods.

2. Objectives of the Study

The present study aims to examine the relationship between community forestry and the livelihood practices of the Limbu community in Dundamari Village, Jhapa, Nepal. The specific objectives of the study are:

1. To analyze the contribution of community forest resources to the livelihoods of the Limbu community in Dundamari Village.
2. To examine how community forestry has influenced or transformed local livelihood strategies within the Limbu community.
3. To explore indigenous perspectives and local practices associated with community forestry activities.
4. To understand the role of community forestry as a tool for supporting sustainable livelihoods from a local and indigenous perspective.

3. Literature Review

Research on community forestry in Nepal has increased over time mainly for development perspective. Many studies examine different sectors like, forest regeneration, institutional development, participation, governance, and livelihood. However, fewer studies focus on the social aspect of livelihood experiences of specific indigenous communities from community forestry perspective. Present review brings together major theoretical and empirical works related to community forestry. It further discusses on forest dependence, indigenous knowledge, and livelihood change. It focuses on how community forestry management interacts with indigenous practices and local socio-economic realities at local context. Although there is extensive and diverse literature on community forestry in Nepal, there is no focused study on the Limbu community of Dundamari Village, Jhapa. In particular, there is limited research on forest based livelihoods and effects of community forest management in this context.

3·1 Theoretical and Analytical Foundations

The Sustainable Livelihood Framework (SLF) is commonly associated with DFID (1999) is well recognized. It is widely used to understand rural livelihoods. The SLF defines livelihood as a combination of capabilities, assets, and activities. It required for a means of living. In forest dependent communities, the SLF helps analyze how natural resources support their livelihood security. Ellis (2000) explains that livelihoods are dynamic based on diverse factors. They are shaped by surrounding ecological conditions, policies, markets, and institutions. In the context of community forestry, these dynamics appear in access participation, harvesting systems, benefit sharing, and institutional changes. Forest products may increase financial capital which support people's livelihood while participation in forest governance can strengthen social capital (Ellis, 2000).

Community forestry in Nepal is also understood through Community based Forest Management (CBFM) theory. This approach emerged as a response to centralized forest control system by the state. Arnold (2001) argues that when forest rights and responsibilities are transferred to local communities, the possibilities in both ecological and livelihood benefits can occur. Nepal's community forestry as internationally recognized for improving forest conditions and supporting rural livelihoods (Acharya, 2002).

Chhetri *et al.* (2013) emphasize that CBFM is based on rights and responsibilities. As them, user groups are responsible for sustainable management themselves. However, formal rights do not always ensure equitable outcomes beyond examinations of socio-cultural context. In indigenous settings, it is important to examine whether forest governance reflects cultural practices and livelihood priorities is primarily significant.

Common Property Resource (CPR) theory is also relevant. Ostrom (1990) challenges the idea that common resources inevitably degrade. She shows that communities can manage shared resources effectively when rules are clear and locally enforced. Community forests in Nepal follow this model through operational plans and internal rules to make it effective.

Dahal & Chapagain, 2008 note that CFUGs are legally recognized institutions with authority to manage forests. However, these institutions may also reflect local hierarchies. Participation and benefits may not be equally distributed. Indigenous knowledge and cultural ecology provide another important perspective. It explains that indigenous knowledge is embedded in culture, beliefs, and lived experience. It includes sacred forests, ritual restrictions, and customary harvesting norms. Nimachow *et al.* (2011) show that tribal communities often regulate resource use through culturally based rules and practices. Indigenous knowledge as a system of beliefs and practices that promote respect for nature and culture equally (Gadgil *et al.*, 1993).

For the Limbu community, forest relations are not only based on economic. They are linked to identity, religion, and culture equally. Therefore, community forestry can influence both livelihood and cultural continuity. Social capital theory also helps explain community forestry consequences of the local community. Social capital as networks, norms, and trust that support cooperation between the members of community forestry (Putnam,1993). In community forestry, collective decision making can strengthen social capital which is based on community perceptions differently. Adhikari and Lovett (2006) argue that CF can build both internal and external relationships for its better outcomes. However, empowerment depends on meaningful inclusion and participation. Similarly, Chambers and Conway (1992) define livelihood as the ability to secure basic needs using available resources and strategies. These ideas are especially relevant for indigenous communities, where forest access is knotted to culture and ancestry is significant for sociological research.

Many studies show positive impacts of community forestry in Nepal. Bhattarai (2016) explained that forest nationalization in 1957 weakened local access rights to the forest. Community forestry later restored user rights and enhance access of people on forest resources is seen significant in Nepal. Luintel & Banjade (2017) describe Community Forestry as one of Nepal's most successful forest programs which internationally recognized. However, inequality and unequal participation based on caste and gender remains a concern. Bijaya *et al.* (2015) report that benefit distribution can favor wealthier households compare to marginalized people. Similarly, Richards *et al.* (2003) questions on equity challenges on community forestry. Gender issues are also significant for the community forestry research. Nightingale (2002) argues that women's participation may be symbolic without real authority. It indicates gender gap in community management system. In an another side access to community forests reduces household costs for fuelwood and fodder at local level. Agrawal, & Chhatre, (2006) find out that based on their research timber and NTFP income supports local development. However, Shrestha and McManus (2008) argue that indigenous knowledge is often under-represented and ignore in forest plans and management. Recent studies show a need of deeper research on internal group dynamics and long term outcomes from community forestry (Bhandari *et al.*, 2025).

Indigenous knowledge literature emphasizes cultural values and ecological ethics regarding the community forestry research (Nimachow *et al.*, 2011). These perspectives are directly relevant to the Limbu community, whose identity and rituals are closely linked to forests historically. However, there is limited research on how formal community forestry interacts with specific indigenous practices among Limbu community. In Dundamari Village, Jhapa, there is no focused study on the Limbu community's livelihood patterns under community forestry governance is the research concern of the present study. This study addresses a gap by examining community forestry and livelihood generation among the Limbu community of Dundamari Village, Jhapa. The study aims to assess the impacts of forest resources on the Limbu community in Dundamari Village and to examine changes in their livelihood strategies under community forestry governance.

4. Research Methodology

This study employed a mixed-methods research design to examine the impacts of community forestry on the livelihood practices of the Limbu community in Dundamari Village, Jhapa, Nepal. By integrating quantitative and qualitative approaches, the study captures both measurable livelihood outcomes and the socio-cultural meanings associated with forest use and management within the community.

The research adopted an exploratory and descriptive design within the mixed-methods framework. The exploratory dimension facilitated the investigation of an under-researched area, particularly the relationship between community forestry and indigenous Limbu livelihoods. The descriptive dimension enabled the identification of patterns of participation, benefit- sharing, and livelihood strategies within the community forestry system.

The field study was conducted in Dundamari Village, Ward No. 8 of Shivasatakshi Municipality, Jhapa District, focusing on users of the Chulachuli Community Forest (CCF). Fieldwork was carried out between November and December 2025. The study site was selected purposively because the area represents a context where forest resources play a significant role in both livelihood practices and cultural life. The indigenous Limbu community in this region has historically relied on forest resources for subsistence, income generation, and socio-cultural and ritual activities.

Primary data were collected through semi-structured interviews, participant observation, and informal interactions with community members. Secondary data were obtained from government publications, census reports, community forest operational plans, policy documents, and relevant scholarly literature on community forestry and livelihoods.

According to the Central Bureau of Statistics (CBS, 2021), all households in Dundamari Village constitute the research universe. From this population, 100 respondents were selected through purposive sampling, ensuring that participants possessed direct knowledge and experience of community forestry activities. The sample included individuals from diverse age groups, gender categories, and social roles to capture varied community perspectives.

Quantitative data were coded and analyzed using descriptive statistical techniques, including frequencies and percentages, to identify patterns of forest use, levels of participation, and livelihood activities. Relationship analysis was further employed to examine associations between socio-demographic variables (such as age, gender, occupation, and economic status) and participation in community forestry activities. Qualitative data were transcribed and analyzed through thematic analysis to identify key themes related to indigenous knowledge, governance experiences, cultural values, livelihood strategies, and issues of inclusion.

Ethical standards were maintained throughout the research process. Participants were informed about the purpose of the study prior to data collection, and informed consent was obtained from all respondents. Confidentiality and anonymity were ensured by removing personal identifiers during data coding, analysis, and reporting. The data were used solely for academic research purposes.

5. Data Presentation and Analysis

5·1 Respondent Profile and Social Structure

This analysis is based on 100 sampled households from the Chulachuli Community Forest User Group (CCFUG). Among the respondents, 70 percent are male (n=70) and 30 percent are female (n=30). Although men more often represent households formally, later findings show that women actively participate in forest-related activities and decision-making processes within the community. In Chulachuli the Limbu community has the highest representation, constituting 60% of the sampled households. This suggests that Limbu is a dominant ethnic group in the study area

The age composition shows a strong presence of economically active groups. Respondents aged 30-39 years constitute 40 percent. It followed by 40-49 years at 24 percent. Together, these two groups represent 64 percent of the sample. Younger respondents aged 20-29 account for 16 percent. Participation declines among older age groups, with 14 percent in the 50-59 age range and 6 percent above 60 years. This distribution suggests that community forestry participation and benefits are concentrated among households in active livelihood and productive stages.

Among the Limbu community of the study area 39 out of 60 households are belong to joint families, while 21 are under nuclear family structure. Similar patterns are observed among them. Rai households, where 8 out of 9 are joint families, and among Magar households, where 7 out of 9 follow joint family structure

This predominance of joint families has analytical significance. Extended households generally provide greater labour availability for forest-related tasks such as fodder collection, fuelwood gathering, and livestock care. Joint families also allow pooling of resources and shared responsibility, which strengthens forest-based livelihood systems.

The caste and ethnic composition of the sample is uneven. Limbu households constitute 60 percent of the total sample. Rai represent 9 percent, Chhetri 5 percent, Tamang 5 percent, Brahmin 4 percent, Sunuwar 3 percent, Kami 3 percent, and Damai 2 percent. This distribution indicates that indigenous households, particularly the Limbu community, are the primary stakeholders in forest governance and forest-resource dependence. Smaller groups may have relatively limited representation in institutional processes.

Educational status is mixed. About 30 percent of respondents are illiterate, while 36 percent are literate without formal certification. Formal education levels show that 14 percent are below SLC. About 10 percent have completed SLC. Around 6 percent have intermediate education. Only 4 percent have a bachelor's degree or above. This educational profile helps explain communication practices. Forest rules and operational procedures are often shared through meetings. They are also communicated through oral discussions. Written documents are used less frequently.

Occupational patterns indicate strong reliance on agriculture. Agriculture is the primary occupation for 62 percent of respondents. Another 21 percent combine agriculture with wage labour. Smaller proportions combine agriculture with service (4 percent) or business (3 percent). Traditional occupations such as priestly work (2 percent), tailoring (3 percent), carpentry (4 percent), and blacksmithing (1 percent) appear in limited numbers.

These patterns of data show that community forestry is more closely linked to agricultural and subsistence support to the Limbu community. It shows lesser impact on generation of formal employment. Forest resources primarily strengthen farming systems and household-level survival strategies in the study area.

5·2 Forest Dependence: Livestock, Biomass, and Timber Use

Livestock ownership is widespread in the study area. This reflects the strong integration between farming and forest resources. The total livestock count in the sampled area reaches 5,624 animals. Poultry dominates and represent 46.6 percent. Pigs represent 27.8 percent, and goats 18.7 percent. Larger livestock appear in smaller proportions. Cows represent 1.9 percent, buffalo 1.7 percent and oxen 1.6 percent. The high number of pigs and poultry suggests livelihood strategies that combine subsistence consumption and local level income generation. Goats and cattle require regular fodder supply. It reinforcing the importance of forest based grazing and biomass collection.

Daily consumption patterns further demonstrate forest dependence. The average household size is 7.1 members, and the average livestock holding is 12.3 animals per household. On average, each household consumes 0.9 bhari of firewood per day and 5.2 bhari of fodder per day.

These figures indicate that both household energy needs and livestock feeding systems are structurally dependent on forest access. Therefore, CFUG rules regarding collection schedules, product distribution, and access restrictions directly affect livelihood stability.

Timber use through the CFUG is also significant. Two major timber types are reported. *Kukat* (less valued) timber is used by 85 percent of households, with a total use of 1,145 logs. Sâl, *Shorea robusta* (valuable timber) timber is used by 60 percent of households, with 1,120 logs recorded. Although fewer households use Sal and the total volume is nearly equal to *Kukat*. This suggests relatively higher consumption per household among Sal users. it was possibly due to its durability for housing and structural construction. At the same time, community forest is not the only source of subsistence materials. Community forest supplies 26 percent of grass and green fodder, 21 percent of leaf litter, 30 percent of fuelwood, and 37 percent of house timber. The remaining share comes from private land, natural forest, and other local sources.

This data show that community forestry is a major contributor for the livelihood of Limbu community. However, it is only a partial part of a diversified resource system. Households depend on multiple sources to meet their subsistence and livelihood needs.

5·3 Governance and Participation

Awareness of governance rights and responsibilities appears high among member's community forestry. About 90 percent of respondent's report that they are aware of their rights and duties as CFUG members. Such information is mainly shared through meetings with user groups and discussion. Rule enforcement is perceived as strong seen in different task of work among members of user group. Around 72 percent replied that rules are always enforced by its rules and regulation procedures. Only 2 percent report that rules are never enforced. This trend of data suggests that compliance mechanisms are functioning. Institutional authority is recognized within the community.

Participation across different stages of community forestry is seen consistently high and remains at significant level. Respondents report involvement in formation decisions (82 percent). They also participate in plantation decisions (85 percent). About 88 percent are involved in site selection and seedling selection. Around 81 percent take part in nursery management. Participation in conservation and management activities is 91 percent. About 81 percent are involved in weeding or replantation activities. Participation in benefit sharing reaches 100 percent which is significant for community forestry system. This universal engagement is significant because benefit sharing directly affects livelihood outcomes and its support to the members of user group. These patterns show that community forestry in Chulachuli is not limited to nominal membership alone. It involves participation in planning, implementation, and benefit distribution processes of community forestry.

Women's participation is widely acknowledged but shaped by structural constraints seen in this community forestry. About 79 percent confirm that women are actively involved in community forestry activities, while 21 percent disagree. However, barriers remain cause of gender gap. Cultural restrictions are reported by 40 percent. Lack of education is identified by 23 percent. Household responsibilities limit participation for 22 percent. Another 15 percent mention exclusion from decision-making.

Comparing overall participation in community forestry in Chulachuli, 55 percent consider women's involvement to be equal to men's participation. Around 35 percent believe it is lower, while 10 percent consider it greater. These figures of data suggest that women are visibly present in community forestry activities. However, deeper influence in leadership and strategic decision-making may still be limited by social norms and time constraints.

The executive committee reflects partial diversity. It consists of 15 members. Most fall within the 31-50 age group. Twelve members are married. Ten members belong to Janajati (Ethnic) communities. The committee includes 6 women and 9 men. This composition shows movement toward inclusion, though male dominance continues.

Monitoring practices are regular and institutionalized. About 75 percent report that community members are involved in monitoring forest activities. All respondents report that the committee conducts monitoring on a weekly basis. This structured oversight supports consistent rule enforcement and forest protection. External support is primarily government based. Respondents report no involvement from NGOs or INGOs. All respondents indicate that government agencies provide support. This support includes training and resource provision (90 percent), monitoring and evaluation (85 percent), and communication with government offices (80 percent). These findings suggest that community forestry in this site is significantly attached in state facilitation rather than donor driven intervention and external imposed.

5·4 Livelihood Outcomes of Community Forestry

Perceptions of livelihood change found are largely positive. About 60 percent report that household income increased after joining the community forest is significant of this community forestry. Around 15 percent of respondent report no change. Ten percent respondents said they have felt a decrease, and 15 percent state that they do not know about the direct impact of community forestry.

These responses under different level of impact are based on perception rather than precise monetary data. The dominance of the "increased" category, which is significant size, suggests that community forestry is viewed as a supportive livelihood institution. The main livelihood activities influenced by community forestry are agriculture and livestock rearing for rural community. About 85 percent report expansion of farming activities due to forest access. Seventy percent of them told increased involvement in animal husbandry.

In the study area, around 40 percent of respondent report engaging in the sale of forest products such as fuelwood, fodder, or timber from the community forestry. This figure indicate that community forestry contributes more indirectly through strengthening farm and livestock production systems and ensuring resource access to the local farmers. Direct employment generation from the community forestry remains limited.

Energy security emerges as a central livelihood benefit from its beginnings. Seventy percent of respondents meet more than 75 percent of their household fuel needs from the community forest. Similarly, 15 percent meet between 51 and 75 percent of their fuel needs through forest access. Only small proportions of respondents depend less on the community forest. Consistent data with this, 80 percent rate the community forest as "very important" for household livelihood is significant for rural livelihood system. These findings show that position of community forestry for rural livelihood as a core livelihood infrastructure in the local economy. It plays a central role for the community subsistence in biomass energy provision, livestock feeding systems, and agricultural sustainability. Community forestry in Dundamari therefore functions not only as a conservation mechanism and protect eco-diversity but also as a foundational support system for rural livelihood stability and community change.

6. Discussion

This study shows and justified that community forestry in Dundamari, under the Chulachuli CFUG, operates both as a livelihood support local institution and as a local governance structure faced by local community. Its outcomes are shaped by forest dependence, participation patterns, and the socio-cultural structure of the mainly Limbu community. The discussion below connects the empirical findings with the relevant literature which focusing specifically on community forestry and Limbu livelihoods at local level.

6·1 Community Forestry as a Livelihood Support System

The findings clearly indicate that community forestry contributes directly to household livelihoods. It strengthens energy security, supports to the farm and livestock systems. It provides access to timber for construction and maintenance equally. A large proportion of households meet more than three quarters of their fuel needs from the community forest. Most respondents also describe the forest as very important for their livelihood justified that community forest work as livelihood support system.

These results found under different nature and level of data link with the Sustainable Livelihood Framework (DFID, 1999). The framework emphasizes the role of natural capital in strengthening livelihood security and sustainability. In this context, forest products function as natural capital that reduces household vulnerability and supports resilience (Ellis, 2000).

In rural and forest dependent households such support is expected because they are historically connected to the forest based livelihood. Forests supply fuelwood, fodder, timber, and other products that reduce direct household expenditure and it may support household saving indirectly. They also serve as a livelihood safety net, particularly where agriculture remains the dominant occupation (Bhatia, 1999). The occupational data from this study confirm that agriculture based livelihoods dominate in Dundamari. Livestock ownership is also extensive in those community setting. These patterns reinforce the argument that forests are structurally integrated into rural farming systems. Forest resources reduce production costs and stabilize subsistence strategies is significant among people of Dundamari. This reflects earlier observations that natural resources are central to livelihood security in agrarian communities (Chambers & Conway, 1992).

However, the study also shows partial dependence on forest. The community forest supplies a significant share of fodder, leaf litter, fuelwood, and timber. At the same time, private land and other forest sources continue to contribute it. This diversified pattern supports Ellis's (2000) argument that livelihoods are dynamic and depend on local context. Households rarely depend on a single resource base. Instead, they combine multiple sources to manage uncertainty and seasonal fluctuation.

6·2 Livelihood Change through Agriculture and Livestock Intensification

The most visible livelihood shifts in this study relate to farming and livestock expansion from the support of community forest. A large proportion of respondent's told increased agricultural activity and animal husbandry after joining the community forest. In contrast, direct employment opportunities provided by community forestry remain limited. This suggests that community forestry in Dundamari does not function primarily as a wage generating mechanism. Instead, it strengthens existing livelihood systems. It stabilizes biomass supply, ensures fodder access, and supports livestock production which indirectly make easy their livelihood.

This finding is consistent with earlier research in Nepal. Community forestry often improves subsistence security and farm productivity rather than creating formal employment (Adhikari *et al.*, 2006). From a theoretical perspective, this outcome supports with the Sustainable Livelihood Framework and livelihood theory. Improved access to natural capital and institutional support can enhance household strategies and livelihood without fundamentally changing occupational structures and direct income generation (DFID, 1999; Chambers & Conway, 1992). In Dundamari, community forestry reinforces agriculture based livelihoods rather comparison to transforming them into wage based systems.

Participation in different stages of community forestry is seen significant. Respondents report involvement in formation, plantation, site selection, and conservation activities. Participation in benefit sharing is important. This shows that the CFUG functions as an active local institution which supports to their long-term livelihood system. These findings of this research are associate with Common property resource theory in some extent. Ostrom (1990) argued that common resources among community members can be managed successfully if rules are clear for all and monitoring is regular and impartial. In Dundamari, monitoring is frequent and rule enforcement is strong.

Nepal's community forestry model recognizes CFUGs as local institutions with authority over forest management (Dahal & Chapagain, 2008). The findings from this study support the view that participation in planning, implementation, and benefit distribution strengthens institutional sustainability (Nadkarni, 2000). However, participation is not socially neutral. Most respondents belong to economically active age groups. Men are often household representatives under patriarchal social structure. This reflects common rural institutional patterns where decision making authority is associated to age and gender. Participation therefore follows existing social structures is need to be further explored.

6·3 Gender Inclusion and Structural Constraints

Women are actively involved in community forestry activities. They are also present in the executive committee. However, size of participation is low. This suggests that inclusion has improved eventually. Community forestry can create opportunities for leadership and institutional learning (Adhikari & Lovett, 2006). In practices, barriers remain significantly imbalance. Cultural norms, household responsibilities, and limited education restrict women's participation in the study area. Some women are excluded from key decisions due to the cause of structural exclusion. These findings match earlier studies showing that women often contribute labour but have less influence in governance and control system (Agarwal, 2001; Nightingale, 2002). Participation is therefore meaningful for community forestry but not seen fully equal.

6·4 Indigenous Identity and Household Organization

Joint family households are common in the Limbu community forms the majority in the sample. This structure affects how community forestry operates. Joint families provide labour for forest related activities. They share responsibilities and pool resources appropriately. Livelihood theory explains that households act as units that organize labour and assets for survival (Chambers & Conway, 1992; Ellis, 2000). In this case, joint family organization mainly among Limbu community strengthens engagement in forest use. Forests also have cultural importance. They are linked to rituals, beliefs, and identity. Community forestry therefore influences both livelihood and cultural practices. When formal rules do not fully recognize indigenous knowledge, cultural dimensions may be overlooked and regulate community based institutions (Shrestha & McManus, 2008).

6·5 Equity and Representation

The CFUG includes several caste and ethnic groups. However, the Limbu community is numerically dominant in the study area. This dominancy affects representation in community forestry and influence in the process of community forestry. Research shows that local institutions can reflect existing social hierarchies (Kanel & Dahal, 2008). In this study, participation levels are high among respondents. Benefit sharing among members of community forestry is widely described positive which is significant. However, influence in operating community forestry based on caste, ethnicity and gender may still be influenced by their social affiliations. Some households report income improvement significantly. At the same time while others report no change to their economic status. This pattern reflects findings from other studies showing that livelihood benefits are not equal for all in different context (Bijaya *et al.*, 2015). Outcomes from community forestry of the study area depend on household capacity, social composition, and access.

7. Conclusion

This study shows that community forestry in Dundamari of Jhapa is not only a system of forest protection. It functions as a livelihood support institution for the local community. It also serves as a local governance structure within an indigenous socio-cultural setting of Eastern Nepal. Community forestry affects daily life through access to fuelwood, fodder, timber, and livestock support within the Limbu community. At the same time, it shapes decision making among members of community forestry user group (CFUG), patterns of participation, and local authority structures. The findings indicate that the meaning of benefits and supports from community forestry goes beyond material products. It also includes stable access to resources, participation, and recognition within local institutions. Community forestry organizes forest dependence through formal rules and collective management from social and cultural mind set. However, it does not automatically transform economic structures because of androcentric way of thought. Instead, it stabilizes existing agriculture-based livelihoods of local community which is significant for community based support system.

The study also confirms a broader pattern found in Nepal's community forestry experience. Participation alone does not ensure equity or equal social ownership. Even where monitoring is strong and engagement is high the differences remaining a significant level. Gender roles, education, age, and household structure influence decision-making processes. Women participate actively in its all process, on the other hand structural barriers remain that make hinder to get vital role and control. Although, representation exists significantly unequal, authority may still follow existing social patterns.

For indigenous communities, cultural association is an additional concern when examining community forestry and its practices. Forests are not only economic assets among them, but it in Limbu community is also part of identity, belief, and customary practice. Formal operational plans and governance procedures do not always fully reflect these cultural dimensions in Nepal. Long-term sustainability therefore depends not only on government rule encroachment. However, it also on whether governance becomes inclusive and culturally responsive and socially respectful to the local community.

References

Acharya, K. P., "Twenty-four years of community forestry in Nepal", ***International Forestry Review***, 4(2), 2002, 149-156.

Adhikari, B., & Lovett, J. C., "Institutions and collective action: Does heterogeneity matter in community-based resource management?", ***Journal of Development Studies***, 42(3), 2006, 426-445. https://doi.org/10.1080/00220380600576201

Agrawal, A., & Chhatre, A., "Explaining success on the commons: Community forest governance in the Indian Himalaya", ***World Development***, 34(1), 2006, 149-166. https://doi.org/10.1016/j.worlddev.2005.07.013

Agarwal, B., "Participatory exclusions, community forestry, and gender: An analysis for South Asia and a conceptual framework", **World Development**, 29(10), 2001, 1623-1648. https://doi.org/10.1016/S0305-750X(01)00066-3

Agarwal, B., "Gender and forest conservation: The impact of women's participation in community forest governance", ***Ecological Economics***, 68(11), 2009, 2785-2799.

Arnold, J. E. M., ***Forests and people: 25 years of community forestry***, Rome, Italy: FAO, 2001.

Bajracharya, D., "Deforestation and the food/fuel context: Historical-political perspectives from Nepal", ***Mountain Research and Development***, 3(3), 1983, 227-240.

Baral, N. R., "Where is our community forest?", ***Banko Janakari***, 4(1), 1993, 12-15.

Berkes, F., ***Sacred Ecology*** (3rd ed.), New York: Routledge, 2012.

Bhatia, A., (ed.), ***Participatory Forest Management: Implications for Policy and Human Resources' Development in the Hindu Kush-Himalayas***, ***Vol. 5: Nepal***; (Other volumes: 1. Workshop Proceedings, 2. China, 3. Eastern Himalayas, 4. India, and 6. Pakistan), Kathmandu: International Centre for Integrated Mountain Development (ICIMOD), 1999.

Bhattarai, B., "Community forest and forest management in Nepal", ***American Journal of Environmental Protection***, 4(3), 2016, 79-91. https://doi.org/10.12691/env-4-3-3.

Bhattarai, D., Devkota, A., & Sharma, G. B., "Determinants and perceptions of women's participation in community forest management: Evidence from Western Nepal", ***Archives of Agriculture and Environmental Science***, 10(4), 2025, 615-624. https://doi.org/10.26832/24566632.2025.100409

Bijaya, G. C. D., Cheng, S.-K., Gao, Q., Xu, Z., Wang, L. E., Bhandari, J., Liu, X., Gao, L., & Cao, X., "Can community forestry play a major role in the socio-economic enhancement of poor users in Nepal?", ***Bulgarian Journal of Agricultural Science***, 21(2), 2015, 378-383. https://www.agrojournal.org/21/02-27.pdf

Central Bureau of Statistics, ***National Population and Housing Census 2021***, Kathmandu: Government of Nepal, 2021.

Chambers, R., & Conway, G., "Sustainable rural livelihoods: Practical concepts for the 21st century", IDS Discussion Paper No. 296, Brighton: Institute of Development Studies, 1992.

Chemjong, I. S., ***History and Culture of the Kirat People***, Kathmandu: Kirat Yakthung Chumlung, 2006.

Chhetri, B. B. K., Johnsen, F. H., & Konoshima, M., "Community forestry in the hills of Nepal: Determinants of user participation in forest management". ***Forest Policy and Economics***, 30, 2013, 6-13. https://doi.org/10.1016/j.forpol.2013.01.010

Chhetri, R. B., & Pandey, T. R., ***User Group Forestry in Nepal: Case Studies from Baitadi and Achham***, Kathmandu: ICIMOD, 1992.

Dahal, G. R., & Chapagain, A., "Community forestry in Nepal: Decentralized forest governance", C. J. P. Colfer, G. R. Dahal, & D. Capistrano (eds.), ***Lessons from Forest Decentralization: Money, Justice and the Quest for Good Governance in Asia-Pacific***, London: Earthscan/Routledge, 2008, 66-84.

Department for International Development, ***Sustainable Livelihoods Guidance Sheets***, London: DFID, 1999.

Ellis, F., ***Rural Livelihoods and Diversity in Developing Countries***, Oxford: Oxford University Press, 2000.

Gadgil, M., Berkes, F., & Folke, C., "Indigenous knowledge for biodiversity conservation", ***Ambio***, 22(2/3), 1993, 151-156. https://www.jstor.org/stable/4314060

Gilmour, D. A., & Fisher, R. J., ***Villagers, forest and foresters: The philosophy, process, and practice of community forestry in Nepal***, Kathmandu: Sahayogi Press, 1991.

Government of Nepal, ***Forest Act, 1993***, Kathmandu: Ministry of Forests and Soil Conservation, 1993.

Hayes, A. C., & Nadkarni, M. V., ***Poverty, Environment and Development: Studies of Four Countries in the Asia Pacific Region***, Bangkok: UNESCO Principal Regional Office for Asia and the Pacific, 2001.

Kanel, K., "Community Forestry in Nepal: Achievements and Challenges", ***Journal of Forest and Livelihood***, 4(1), 2004, 55-63. https://doi.org/10.3126/jfl.v4i1.59772

Kanel, K. R., & Dahal, G. R., "Community forestry policy and its economic implications: An experience from Nepal", ***International Journal of Social Forestry***, 1(1), 2008, 50-60.

Luintel, H., & Banjade, M. R., "The Effect of the Nepal Community Forestry Program on Equity in Benefit Sharing", ***Forest Policy and Economics***, 75, 2017, 80-88. https://doi.org/10.1016/j.forpol.2016.10.006

Nepal, Government of Nepal, ***Forest Act, 2049 (1993)***, London: Law Books Management Board / FAOLEX, 1993.

Nightingale, A. J., "Participating or just sitting in? The dynamics of gender and caste in community forestry", ***Journal of Forest and Livelihood***, 2(1), 2002, 17-24. https://doi.org/10.3126/jfl.v2i1.59671

Nimachow, G., Joshi, R. and Dai, O., "Role of Indigenous Knowledge System in Conservation of Forest Resources: A Case Study of the Aka Tribes of Arunachal Pradesh", ***Indian Journal of Traditional Knowledge***, 10, 2011, 276-280.

Ostrom, E., ***Governing the Commons: The Evolution of Institutions for Collective Action***, New York: Cambridge University Press, 1990.

Pokharel, B. K., Branney, P., Nurse, M., & Malla, Y. B., "Community forestry: Conserving forests, sustaining livelihoods and strengthening democracy", ***Journal of Forest and Livelihood***, 6(2), 2007, 8-19

Putnam, R. D., ***Making Democracy Work: Civic Traditions in Modern Italy***, Princeton, NJ: Princeton University Press, 1993.

Richards, M., Wells, A., Del Gatto, F., Contreras-Hermosilla, A., & Pommier, D., "Impacts of illegality and barriers to legality: A diagnostic analysis of illegal logging in Honduras and Nicaragua", ***International Forestry Review***, 5(3), 2003, 282-292.

Shrestha, K. K., & McManus, P., "The politics of community participation in natural resource management: Lessons from community forestry in Nepal", ***Australian Forestry***, 71(2), 2008, 135-146. https://doi.org/10.1080/00049158.2008.10676280

World Bank, ***From Data to Action: Enabling Sustainable Forest Management in Nepal***, Washington, D.C.: World Bank Group, 2025. https://www.worldbank.org/en/news/feature/2025/11/20/from-data-to-action-enabling-sustainable-forest-management-in-nepal

★

Article Received on February 25, 2026; Accepted on April 15, 2026

JOURNAL OF NATIONAL DEVELOPMENT

PEER REVIEWED, INDEXED & REFEREED Bi-ANNUAL INTERNATIONAL JOURNAL

ISSN 0972-8309

https://www.jndmeerut.org

[Vol. 39, No. 1 (Summer), 2026]

https://doi.org/10.62047/JND.2026.06.30.19

Radha: A Symbol of Spirituality and Aesthetics *(Sringara)*

Reetika Garg

Assistant Professor, Department of Drawing & Painting, University of Rajasthan, Jaipur, Rajasthan (India) E-mail:<reetikagarg101@gmail.com>

Abstract

Radha, the eternal beloved of Krishna, embodies a unique synthesis of spirituality and aesthetics (sringara) within Indian thought. As the divine embodiment of Ahladini Shakti (Supreme power)—the bliss-bestowing power of Krishna—Radha represents the supreme union between the human soul (jivatama) and the cosmic soul (parmatama). Her portrayal in literature, poetry, and visual art transcends the duality of sensual and spiritual experience. In the Indian aesthetic tradition, Sringara rasa (the sentiment of love and beauty) is not confined to the sensual realm; rather, it transforms into a sacred expression of devotion (bhakti). Through Radha, Indian artists and poets express the highest ideal of love-one that begins with desire and culminates in spiritual realization. In medieval Indian art and literature, particularly within the Bhakti movement, Radha became the living symbol of divine longing. Texts like Jayadeva's Gita Govinda, the poetry of Vidyapati and Chandidas, and later Vaishnava traditions elevated her to a metaphysical status. Painters in the Kishangarh, Kangra, and Rajasthani schools depicted Radha's emotions—longing, union, separation, and surrender-as visual allegories of the soul's journey toward God. This integration of sensual beauty and spiritual truth is central to the Indian worldview, where sringara and adhyatma (spirituality) are complementary rather than conflicting. This paper explores Radha as a symbol that bridges the earthly and the divine, examining her philosophical significance, literary evolution, and artistic representations. By analyzing her presence across sacred texts, poetry, and painting, it reveals how Indian aesthetics transforms love into a form of spiritual enlightenment and how Radha's image continues to embody the eternal quest for divine union.

Keywords

Radha, Spirituality, Sringara, Aesthetics, Bhakti, Indian Art, Krishna, Symbolism.

Centre For Studies of National Development, Meerut

Editorial Office : D-59, Shastri Nagar, Meerut - 250 004 (INDIA)

Ph. : 0121-2763765, +91-9997771669, +91-9412200765

2

Radha: A Symbol of Spirituality and Aesthetics *(Sringara)*

1. Introduction

In the vast landscape of Indian art and philosophy, few figures embody the seamless union of spirituality and aesthetics as profoundly as Radha. Revered as the personification of *Ahladini Shakti*—the bliss-giving energy of Lord Krishna—Radha transcends the boundaries of mythology to become a universal symbol of divine love. Within the Indian cultural imagination, her presence signifies the transformation of sensual emotion *(sringara)* into spiritual devotion *(bhakti)*.[1] Through Radha, the human yearning for union with the divine finds its most intimate and beautiful expression.

The portrayal of Radha in Indian literature and visual art has evolved over centuries, shaped by theology, poetry, and devotion. While the *Bhagavata Purana* hints at her spiritual significance without naming her directly, later Vaishnava traditions established her as Krishna's eternal consort and divine counterpart. In philosophical terms, Krishna represents the *Paramatma*—the Supreme Soul—while Radha signifies the *jivatma*—the individual soul striving for union. This metaphysical relationship between Radha and Krishna mirrors the cosmic principle of unity between the human and the divine, between matter and spirit, between the seen and the unseen.

In aesthetic philosophy, *sringara rasa*, or the sentiment of love, is regarded as the king of all *rasas (rasa-raja)*, encompassing the essence of creation itself. Indian thinkers such as Bharata in the *Natyasastra* and later Abhinavagupta[2] in the *Abhinavabharati* viewed *sringara* not merely as physical attraction but as an artistic and spiritual experience that elevates the human soul. The love of Radha and Krishna thus becomes a metaphor for the ultimate aesthetic and spiritual realization-where art becomes prayer and beauty becomes truth.

The integration of these two seemingly distinct realms-sensuality and spirituality-forms the essence of the Indian world-view. In Western aesthetics, the physical and the divine are often perceived as opposites, but in India, they coexist harmoniously within a single continuum of experience. Radha, therefore, stands as a bridge between the temporal and the eternal, embodying both the passion of human love and the transcendence of divine devotion.

2. Objective of the Study

This research paper seeks to explore this duality and unity through Radha's representation across multiple artistic and literary traditions. It aims to uncover how Indian aesthetics and religious thought interpret her as both a divine lover and a spiritual seeker. The study examines textual sources like the Srimad Devi

Bhagavatam, Jayadeva's Gita Govinda, and the works of Vidyapati, Chandidas, and Keshavdas, alongside visual interpretations by Indian painters in the Rajasthani, Pahari, and Kishangarh schools. Through this lens, Radha emerges not merely as a mythological character but as an enduring philosophical symbol of the eternal quest for union between the human and the divine.

3. Methodology

This study adopts a qualitative, interpretative, and interdisciplinary approach to examine Radha as a symbol of spirituality and aesthetics *(Sringara)* across literary and visual traditions. It is based on hermeneutic and descriptive-analytical methods, drawing upon secondary sources. The analysis employs close textual reading and iconographic interpretation grounded in Indian aesthetic concepts such as *rasa* and *bhakti*, while a comparative framework is used to trace thematic continuities and variations, ultimately interpreting Radha as a symbolic bridge between sensual love and spiritual devotion, representing the eternal quest for union between the human and the divine.

4. The Philosophical and Cultural Context

The figure of Radha occupies a unique and profound position within the spiritual, philosophical, and artistic imagination of India. To understand Radha is to enter into the deepest layers of Indian metaphysical and aesthetic consciousness, where art, philosophy, and devotion merge seamlessly into a unified vision of truth. In the Indian tradition, all forms of art—whether literary, visual, or performative—arise not from mere imitation of the external world *(anukarana)* but from the inner realization *(anubhava)* of cosmic truth. Art, therefore, becomes a sacred means of knowing, a process through which the finite human soul encounters the infinite. Within this vision, Radha emerges as the supreme embodiment of divine love, the very energy *(shakti)* that links the individual self with the universal consciousness.

In Vaishnava theology, this relationship is articulated through the dynamic polarity between Krishna and Radha. Krishna represents the Absolute Reality (Paramatma)—eternal, blissful, and self-luminous—while Radha symbolizes His internal potency *(ahladini-sakti)*, the essence of divine love and bliss through which the Absolute manifests and experiences itself. The *Srimad Devi Bhagavatam* and *Brahma Vaivarta Purana* describe Radha as the *Adi-Shakti*, the primordial feminine principle from which all creation emanates. Her radiance, likened to the whiteness of *champa* blossoms and the brilliance of a thousand moons, represents purity, compassion, and spiritual illumination. In her, the divine assumes the form of love itself; she is both the source and the expression of cosmic harmony.

Indian philosophy, especially the non-dualistic schools, finds deep resonance in this imagery. The *Upanisadic* idea that Brahman manifests as both namarupa (name and form) and transcends them parallels the Radha-Krishna relationship. Their love becomes an allegory of the cosmic play *(lila)*—the interaction of the static and the dynamic, the eternal and the temporal. Through Radha, the infinite divine assumes a human emotional form so that humanity may experience the transcendental through the language of feeling. Her longing for Krishna symbolizes the soul's desire to return to its divine source, while their union represents the bliss of spiritual realization *(ananda)*.

Historically, Radha's emergence as a central figure in Indian thought coincided with the *Bhakti* movement (11^{th}-16^{th} centuries), which redefined spirituality as an intimate, emotional, and personal relationship with God. This movement transformed the rigid hierarchies of ritualistic religion into a path of heartfelt devotion *(bhakti)*. Saints and poets such as Jayadeva, Vidyapati, Chandidas, Surdas, and Chaitanya Mahaprabhu reimagined divinity not as a distant cosmic ruler but as the beloved of the soul. Their works articulated an emotional theology where love was both the means and the end of spiritual realization. In this milieu, Radha emerged as the supreme devotee, the paragon of unconditional surrender, whose love transcends ego and merges into the divine.

In aesthetic terms, this transformation was deeply significant. The poets and painters of medieval India used the imagery of human love to express spiritual truths. The duality between *shringara* (love) and *adhyatma* (spirituality) was resolved through the idea that divine love can be experienced through human emotions. Thus, rasa (aesthetic emotion) and *bhakti* (devotion) became two facets of the same experience. As art historian Kapila Vatsyayan observes, "Indian aesthetics is not divorced from religion; it is its finest flowering."

Culturally, this shift marked a profound democratization of Indian spirituality. The *Bhakti* poets spoke in regional languages rather than Sanskrit, making divine love accessible to common people. Radha's story became a bridge between philosophy and daily life, between transcendence and human emotion. In temples, literature, music, and painting, Radha became not merely a mythological figure but the living symbol of *bhakti* as aesthetic experience. The emotional intensity of her love expressed the soul's existential yearning for divine union—a theme that found visual form in miniature paintings and lyrical expression in devotional poetry.

The philosophical depth of Radha's character lies in this very synthesis. She is not a mortal woman, nor merely a poetic symbol. She is the eternal energy that connects the soul to the divine. Her yearning for Krishna represents the soul's desire for reunion with the Absolute. In this way, Radha transcends the boundaries of mythology and becomes the archetype of the spiritual seeker-the embodiment of divine love itself.

5. The Concept of Radha in Indian Literature

The literary evolution of Radha's image mirrors the transformation of Indian religious and aesthetic thought. Though Radha's name does not appear explicitly in early Vedic or epic literature, her spiritual essence pervades the *Bhagavata Purana* and other *Vaishnava* texts, where the *gopis* of Vrindavana symbolize the many facets of divine love. Among them, Radha gradually emerges as the supreme devotee, the *para-bhakta*, whose love transcends material attachment and attains spiritual absoluteness.

The earliest theological conception of Radha as Krishna's divine counterpart appears in the Srimad Devi Bhagavatam, where she is described as the *Parameshvari*—the ultimate goddess, the embodiment of love and bliss. Her form is radiant like the autumn moon, her beauty surpassing that of all celestial beings, and her eternal youth symbolizing the timeless nature of divine love.[3] These poetic depictions established her not merely as Krishna's consort, but as the metaphysical energy that completes Him.

The literary canon of medieval India, particularly during the rise of the *Bhakti* movement, brought Radha into full prominence. Jayadeva's Gita Govinda (12th century) is perhaps the most influential work in shaping the spiritual and aesthetic dimensions of Radha's personality. In this lyrical masterpiece, Jayadeva portrays the intimate and divine love between Radha and Krishna as a cosmic allegory. The sensuous imagery of their union and separation is infused with profound spiritual symbolism. When Krishna pleads for Radha's forgiveness or when she surrenders to him in love, the human emotions depicted become metaphors for the soul's surrender to the divine.[4]

In Gita Govinda, Radha's longing and her eventual union with Krishna represent the atma's (soul's) journey toward *moksa* (liberation). Jayadeva writes with deep reverence, equating Radha's beauty with the power of devotion itself. His verses were later illustrated by artists of the Rajasthani and *Pahari* schools, where Radha's expressions-of pride, sorrow, and bliss-became visual embodiments of rasa.

The tradition continued with poets such as Vidyapati and Chandidas, whose works in Maithili and Bengali languages expanded Radha's emotional and philosophical dimensions. Vidyapati's lyrics explore the tenderness and suffering of love, while Chandidas's poetry presents Radha as both a woman of deep human passion and a symbol of divine devotion. Chandidas's famous line, *"Suno he manusya bhai, premo bhakti sarvadhik hai"* ("O human beings, know that love and devotion are supreme"), captures the essence of this sentiment.

The 16th century saw the rise of Chaitanya Mahaprabhu, who internalized the Radha-Krishna relationship as the ultimate mystical experience. For Chaitanya, Radha represented the soul's intense love for God, and Krishna represented the Divine Self. He viewed their union as the supreme expression of *madhurya bhava*—the devotional mood of sweetness and love. This interpretation influenced countless poets, saints, and artists across India.

In the Hindi literary tradition, Radha's image continued to inspire poets such as Keshavdas, Surdas, and Bihari Lal. In Rasika Priya and Kavipriya, Keshavdas portrayed the emotional states of Radha-longing *(vipralambha)*, separation *(viraha)*, anger *(mana)*, and union *(sambhoga)*—as reflections of the soul's spiritual evolution. Surdas, in his Sursagar, depicted Radha as the compassionate mediator between the devotee and Krishna. Bihari's Satsai presented her emotions with refined elegance, blending aesthetic grace with spiritual insight.[5]

Through these literary works, Radha evolved from a mythological figure into a complex philosophical symbol-embodying devotion, love, and transcendence. Her story represents the universal search for unity and wholeness. As an archetype, she transcends gender and individuality, becoming the very essence of the soul's longing for the divine.

6. *Shringara* and Spiritual Symbolism in Indian Aesthetics

In the realm of Indian aesthetics, *Shringara* rasa-the sentiment of love and beauty-is often regarded as the crown of all emotions. Far from being a mere expression of sensual desire, *shringara* in the Indian context symbolizes the profound and transformative energy that connects the individual with the divine. It operates on two planes simultaneously: the external (physical love) and the internal (spiritual love). Through this duality, *shringara* becomes the aesthetic vehicle for expressing *adhyatma*—spiritual truth.

Ancient Indian theorists such as Bharata Muni in the Natyashastra[6] and Abhinavagupta in his Abhinavabharti commentary define rasa as an experience that arises when human emotions are elevated through artistic expression. When an emotion is purified by the imagination, detached from personal desire, and universalized through art, it becomes rasa. Thus, *shringara* transcends the ordinary boundaries of passion and becomes a divine aesthetic experience.

Radha and Krishna's relationship exemplifies this transformation. Their love is not confined to the physical or the temporal; it is a spiritual metaphor that reveals the unity of the human and the divine. In poetry, music, and painting, their love becomes a medium through which artists and devotees contemplate the nature of the soul and God. The Bhakti poets used the imagery of union *(sambhoga)* and separation *(vipralambha)* to express the soul's varying states of consciousness. Vipralambha *shringara*—the pain of separation-symbolizes the devotee's longing for the Divine, while sambhoga shringara—the joy of union-represents mystical realization or enlightenment.

This union of *shringara* and *adhyatma* forms the foundation of India's aesthetic philosophy. The poet and philosopher Anandavardhana, in his theory of dhvani (suggestion), emphasized that the highest function of poetry is to evoke spiritual meaning through suggestion rather than explicit statement. In this sense, Radha's glances, gestures, and silences in literature and art are not merely emotional—they are symbolic of the soul's unspoken yearning for God.

Throughout Indian history, this symbolic synthesis has remained central to the cultural understanding of beauty. Unlike Western aesthetics, where physical desire is often separated from spirituality, Indian aesthetics envisions *shringara* as a sacred form of energy *(shakti)*. The beauty of the beloved becomes a reflection of the divine presence. In Radha's eyes, one sees not worldly passion but the light of devotion. Her adornments, gestures, and moods *(bhavas)* are ritualistic expressions of spiritual longing.

The visual arts of India—especially the Kangra, Kishangarh, and Rajasthani miniature schools—transformed these concepts into exquisite imagery. In Kishangarh paintings, particularly those influenced by poet-patron Nagaridas (Raja Sawant Singh)[7], Radha appears as the ideal of beauty and devotion, her elongated form and serene gaze symbolizing spiritual refinement. The moonlight in these compositions signifies purity; the lotus represents the unfolding soul; and the Vrindavana forest serves as the landscape of divine consciousness. The artists used color, gesture, and setting not for narrative realism but for metaphysical evocation to make visible the invisible states of love and longing.

Through such expressions, Indian art established *shringara* as a form of sadhana (spiritual discipline). The contemplation of Radha and Krishna's image becomes a meditative act, guiding the viewer from emotion to realization. This synthesis of devotion, emotion, and aesthetics reveals a fundamental truth of Indian philosophy: spirituality does not negate emotion—it sanctifies it. Beauty, when purified by devotion, becomes a pathway to truth.

Radha, therefore, stands at the confluence of philosophy, literature, and aesthetics. She is at once a historical figure of devotional imagination and a timeless symbol of spiritual consciousness. In her love for Krishna, desire transforms into devotion, emotion becomes enlightenment, and the personal expands into the universal. She embodies the eternal dialogue between the human and the divine, between form and formlessness. Through her, Indian culture affirms that the highest reality can be approached not only through knowledge *(gyana)* or action *(karma)* but also—perhaps most beautifully—through love *(prema)*.

7. Radha in Indian Painting Traditions

The visual representation of Radha has been one of the most evocative and spiritually rich themes in Indian art. Through the centuries, painters across regions—from Rajasthan to Bengal—have reimagined Radha's divine presence, blending aesthetic grace with metaphysical depth. Her figure became a universal symbol of beauty, love, and devotion, transcending the boundaries between religion, art, and philosophy.

7·1 Early Depictions and Vaishnava Influence

The earliest visual motifs associated with Radha and Krishna derive from Vaishnava devotional traditions. In temple sculptures and miniature paintings, their lila (divine play) scenes depict the blissful unity of the divine couple. The *Bhagavata Purana* and Jayadeva's *Gita Govinda* provided textual inspiration for artists, who portrayed Radha not as a mortal woman, but as the Adi-Shakti—the eternal feminine power.

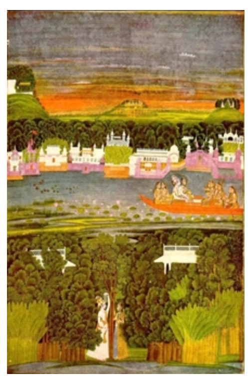
In early miniature styles such as the Mewar and Malwa schools (16^{th}-17^{th} centuries), Radha appears in a simple, rustic form, her expressions modest yet charged with emotion. The settings often depict pastoral landscapes, moonlit groves, and the sacred Yamuna, evoking the divine environment of Vrindavana.

7·2 The Kishangarh School: The Divine Ideal of Beauty

The Kishangarh school of painting, developed under the patronage of Raja Sawant Singh (1719-1764), marked a turning point in the portrayal of Radha. Raja Sawant Singh, who wrote devotional poetry under the name Nagaridas, was deeply devoted to Radha-Krishna. His spiritual muse and consort, Bani Thani, became the visual prototype of Radha in Kishangarh art.

The most celebrated painter of this school, Nihal Chand, immortalized Radha's divine grace through elongated eyes, arched eyebrows, delicate features, and an ethereal smile. The figures of Radha and Krishna in Kishangarh are not earthly lovers but celestial beings, their love sublimated into pure devotion. The background often features lotus ponds, soft hills, and twilight skies that reflect inner harmony and divine serenity.

Art historians often interpret Kishangarh Radha as the visual embodiment of the *Shringara-Adhyatma* synthesis. Her beauty, though sensual in appearance, conveys profound spirituality. Her half-closed eyes express the inward journey of contemplation, while her poised stillness suggests transcendence. As Ananda Coomaraswamy observed, "Indian art does not imitate the visible; it reveals the invisible." The Kishangarh Radha thus reveals the invisible essence of divine love through the visible form of human beauty.



(Picture-1: Kishangarh Miniature Painting)

This Kishangarh miniature painting (above Picture-1) is a splendid example of the romantic and devotional themes that characterize the Kishangarh school of art. The painting beautifully captures the union of *Shringar* (romantic love) and *Bhakti* (spiritual devotion) through the divine figures of Radha and Krishna.

7·2·1 Description of the Painting

The composition of the painting is divided into distinct yet harmoniously connected planes. In the foreground, amidst lush green trees and vegetation, Radha and Krishna stand together, representing the divine lovers united in a secluded grove of Vrindavan. The artist has masterfully used delicate lines and subtle expressions to depict their emotional and spiritual connection. Radha's serene face, slightly tilted toward Krishna, conveys both longing and devotion, while Krishna, adorned with his peacock feather crown and flute, stands in graceful charm.

The background is dominated by a wide expanse of water—possibly the Yamuna river—on which a beautifully ornamented boat carries a group of figures, possibly *gopis* or attendants, symbolizing the eternal play *(lila)* of Krishna. Beyond the river lies a panorama of palatial buildings painted in soft pink and white tones, representing the ethereal city of Braj or Kishangarh itself. The distant landscape glows with an orange-golden sunset, creating a divine radiance that enhances the transcendental aura of the scene.

7·2·2 Artistic Features

This painting displays the typical features of the Kishangarh style-elongated figures, refined facial expressions, and lyrical grace. The almond-shaped eyes of Radha, her slender form, and the gentle bend of her posture exemplify the ideal of beauty developed by the Kishangarh artists. The color palette is rich yet balanced: soft pinks, greens, and golden hues blend harmoniously to create a mood of divine serenity. The landscape is not merely decorative; it symbolizes the spiritual setting of divine love-lush nature as the abode of *Prem* (love) and *Bhakti* (devotion).

7·2·3 Symbolism of Radha

Radha is the central spiritual figure in this composition. She is not just a mortal beloved but a symbol of the soul yearning for union with the Divine. Her interaction with Krishna transcends physical romance and embodies the Vedantic concept of the *Atma* (soul) seeking merger with *Paramatma* (Supreme Soul). In Kishangarh art, Radha’s form is often modeled after Bani Thani, the legendary muse of Raja Savant Singh, who represented the epitome of divine beauty and grace. Through Radha, the artist conveys the spiritual essence of love—pure, selfless, and eternal.

This Kishangarh miniature painting stands as a testament to the fusion of spirituality and aesthetics in Indian art. Through delicate brushwork, lyrical composition, and expressive symbolism, it celebrates Radha as both the lover and devotee—an embodiment of *Shringar Rasa* elevated to the level of *Bhakti Rasa*. The scene, serene yet emotionally charged, captures the essence of divine love, making Radha not just a figure in art but a timeless symbol of spiritual beauty and devotion.

7·3 *Pahari* and Kangra Schools: Poetic Grace and Emotional Intensity

In the *Pahari* and Kangra schools[8] of the 18th century, Radha’s portrayal gained lyrical softness and emotional subtlety. The Kangra painters, inspired by Jayadeva, Surdas, and Bihari, depicted Radha as the epitome of tenderness and devotion. These paintings often illustrate the *Rasa Lila*, where Radha's separation and longing are central themes.

The painters employed delicate lines, gentle colors, and refined gestures to evoke *bhava*—emotional resonance. Radha's expressive eyes and graceful body language mirror the inner turmoil of the devotee yearning for the divine. The landscape itself becomes an emotional participant—the blooming flowers, fluttering peacocks, and flowing rivers echo Radha's love and longing.

(Picture-2 & 3: Kangara Miniature Painting)

This beautiful Kangra miniature painting (Picture-2) is a classic example of the Pahari school of Indian art. It represents the divine love of Radha and Krishna, a theme central to both Indian art and Vaishnava philosophy.

7·3·1 Subject and Theme

The scene illustrates Krishna playfully teasing Radha and her companions (gopis) on the banks of the Yamuna, a beloved theme in Kangra art. It captures the essence of the *Rasa-Lila*—the divine dance and loving play of Krishna with the gopis in Vrindavan.

Here, Krishna, with his blue complexion and yellow garments (pitambar), stands at the center, surrounded by gopis, his flute in hand. Radha, easily identifiable as the most graceful and emotionally expressive figure, stands slightly apart—a symbol of divine love and spiritual union

7·3·2 Depiction of Radha

Radha is the spiritual and emotional core of the painting. She is shown:

With a slight blush of emotion, caught between shyness and attraction. Dressed in delicate red and saffron garments, symbolizing passion and devotion.Her gestures and expressions (known as *bhavas*) convey the subtle feelings of *Shringara Rasa*—the aesthetic mood of love, beauty, and divine longing. Radha is not merely a mortal lover; she represents the individual soul *(jivatma)* yearning for union with the Supreme Soul *(paramatma)*, symbolized by Krishna. Thus, the painting is not just romantic but profoundly spiritual.

7·3·3 Artistic Features

The Kangra style is known for its naturalistic beauty and emotional delicacy, which are beautifully visible here:

Soft, lyrical lines and graceful figures give the painting fluid movement. Subtle facial expressions show inner feelings rather than dramatic gestures. The lush landscape-trees, flowers, and the Yamuna river-creates a romantic, idyllic backdrop symbolizing Vrindavan's eternal spring. Use of natural colors, derived from minerals and vegetables, provides a harmonious blend of soft greens, yellows, and reds.The balanced composition with figures arranged rhythmically reflects serenity and divine order Every element has its symbolic meaning.

7·3·4 Spiritual Interpretation

Radha's longing, love, and union with Krishna symbolize:

Longing of the soul (Radha) for God (Krishna). Union represents spiritual enlightenment—the realization of divine truth through love. Separation *(Viraha)*, often depicted in other Kangra paintings, represents the pain that deepens devotion. Here, in this joyous scene, Radha's union with Krishna reflects the ultimate bliss of divine communion. This Kangra miniature painting is far more than a romantic image—it is a visual hymn of divine love.

Through delicate brushwork, tender colors, and emotional grace, it conveys:

The philosophy of *Bhakti*, the beauty of Indian aesthetics, and the eternal symbolism of Radha, who transforms human love into a spiritual experience. In Radha, Kangra painters found the ideal of perfect devotion, and through her, they gave the world one of the most exquisite forms of visual poetry in Indian art.

This beautiful Kangra miniature painting is a delicate visual expression of divine love, portraying Radha and Krishna—the eternal lovers whose union symbolizes the harmony of *Shringara* (romantic love) and *Adhyatma* (spiritual devotion). To understand this work deeply, it is important to interpret it through both its aesthetic qualities and its philosophical-spiritual symbolism.

7·3·5 Visual Description

The painting depicts Radha and Krishna standing together amidst a lush natural setting. Krishna, with his blue complexion (symbolizing infinity and divinity), is shown gently placing his dark shawl or upper cloth over Radha, protecting her from the monsoon clouds. Radha, adorned in a bright red or orange *ghagra* (skirt) and golden-green *odhni*, leans gracefully toward Krishna. Her posture is tender and expressive, reflecting both love and surrender. The background shows thick trees, dark clouds swirling in the sky, and lightning-like patterns—all evoking the mood of the monsoon *(megh-malhar)*. This season in Indian aesthetics is traditionally associated with longing, union, and rejuvenation.

A few white cranes are flying in the sky, symbolizing the transience of worldly moments and the purity of divine emotion. The architecture in the distant hills represents Vrindavan, the divine abode of Krishna's *lilas* (pastimes).

7·3·6 Philosophical and Symbolic Interpretation

The Kangra artists were deeply inspired by Bhakti literature, especially the *Gita Govinda* of Jayadeva, the *Bhagavata Purana*, and Vaishnava poetry of Surdas, Bihari, and others. In these texts, Radha and Krishna are not merely lovers - they represent the soul and the divine, *prakriti* and *purusha*, devotee and God. Krishna's act of covering Radha with his shawl can be seen as a symbol of divine protection and grace—just as the Lord envelops the soul in his love. The monsoon clouds symbolize the emotional turbulence of love, while the union of Radha and Krishna under the dark sky represents spiritual fulfillment that arises after longing and separation.

Radha's red attire stands for passion and devotion, while Krishna's yellow dhoti reflects divine light and spiritual knowledge. Together, they form the complete harmony of human emotion and divine realization. The natural landscape mirrors the inner landscape of love—the flowering trees, flowing rivers, and luminous clouds evoke the *rasa* (essence) of *Sringara Rasa*, the aesthetic of romantic and divine love.

7·3·7 Radha as the Symbol of Divine Love

In the Kangra school, Radha became the embodiment of *bhakti* (devotional love)—pure, selfless, and transcendental. Her union with Krishna is not physical but spiritual—she represents the soul yearning for the Absolute. This painting captures that moment of divine intimacy, where the outer act of affection symbolizes the inner state of enlightenment and unity.

The monsoon setting enhances this symbolism:

> In Indian aesthetics, the rain season is the time of *viraha* (separation) and *milana* (union). The clouds, thunder, and cool breeze reflect the emotional turbulence of the heart longing for divine contact. Hence, Radha's eyes and body posture—turned toward Krishna yet slightly shy—express the delicate balance between human love and divine devotion.

This Kangra miniature is not merely an illustration of Radha and Krishna—it is a visual poem, a spiritual allegory, and an aesthetic meditation. Through delicate brushwork and symbolic subtlety, the artist communicates the eternal message of the Bhakti movement: that divine love is the path to liberation, and that Radha's devotion represents the soul's ultimate union with the Divine.

In this painting, therefore:

> Radha is not just Krishna's beloved—she is the human heart made divine through love.

Their union beneath the dark clouds is the moment when worldly passion transforms into spiritual bliss.

7·4 Bengal School and Modern Interpretations

In the late 19^{th} and early 20^{th} centuries, the Bengal School of Art, led by Abanindranath Tagore, reinterpreted Radha in a modern yet spiritual idiom. Moving away from Western realism, these artists sought to revive the symbolic and spiritual dimensions of Indian art. Radha was portrayed as the eternal feminine principle, embodying devotion, grace, and emotional depth.

Later, modern painters such as Nandalal Bose, Jamini Roy, and M. F. Husain continued to explore Radha's imagery in diverse styles-each blending traditional motifs with modern expression. In Husain's abstract depictions, Radha becomes a timeless metaphor for divine love, while Jamini Roy's folk-inspired lines restore her archetypal simplicity.

Across centuries, Radha's image has retained its vitality because it represents not merely beauty or love but the soul's eternal search for the divine. Whether painted as a queen, a village maiden, or a celestial goddess, she embodies the highest aesthetic ideal-the transformation of human emotion into divine experience.

7·4·1 The Union of *Shringara* and Spirituality: Symbolism and Interpretation

The relationship between *Shringara* (the aesthetic of love) and spirituality in Indian art and literature finds its most sublime expression in the figure of Radha. Her love for Krishna embodies the seamless fusion of human emotion and divine experience-an inseparable union of passion and purity, longing and liberation. Through Radha, Indian aesthetics demonstrates that love, when elevated through devotion, becomes a means of attaining the Absolute *(Paramatma)*.

7·4·2 Radha as the Symbol of the Soul

At the philosophical level, Radha symbolizes the jivatma-the individual soul-while Krishna represents the *Paramatma*—the Supreme Soul. Their love story is not an episode of worldly romance, but a cosmic allegory of creation, separation, and reunion. The pain of Radha's separation *(viraha)* is the soul's anguish at being apart from its divine source, and her ecstatic union *(sambhoga)* is the realization of spiritual oneness.

The *Bahagavata Puran*a speaks of this divine play *(lila)* as the expression of cosmic joy. In this context, love is not desire but the movement of the soul towards its origin. The poet Jayadeva, in *Gita Govinda*, captures this truth through exquisite verses where sensual beauty merges into spiritual revelation. When Radha gazes at Krishna, it is the gaze of the soul recognizing the infinite within the finite.

7·4·3 The Aesthetic Theory of Transcendence

In the Indian theory of rasa, as explained by Abhinavagupta, aesthetic experience is a form of transcendence. The spectator *(sahrdaya)* enters a state of empathetic awareness that lifts him above personal emotions. *Shringara rasa*, when purified by devotion, becomes an experience of the divine. Thus, Radha's longing is not confined to her as an individual; it is universalized through art. The viewer feels her yearning, her surrender, her bliss-and through these emotions, glimpses the truth of spiritual unity.

This unique synthesis distinguishes Indian aesthetics from Western traditions. While Western thought often divides body and spirit, Indian philosophy perceives them as two expressions of the same reality. Beauty and devotion, art and worship, are different paths to the same goal-realization of the divine essence. In this worldview, Radha's beauty is not sensual indulgence but divine revelation; her emotions are spiritual metaphors rather than psychological states.

7·4·4 Symbolic Dimensions in Art and Literature

Every aspect of Radha's iconography carries symbolic meaning. Her blue veil represents the infinite sky of consciousness; the lotus she holds signifies spiritual awakening; and the moonlit night *(sharad purnima)* of her union with Krishna symbolizes the fullness of enlightenment. The forest of Vrindavana is not a physical place but the inner realm of the heart where divine love manifests.

Similarly, the moods *(bhavas)* of Radha-longing, jealousy, pride, and surrender-mirror the stages of the spiritual journey. Her *mana* (sweet anger) reflects the ego's resistance to divine will, while her *saranagati* (surrender) marks the moment of realization. The aesthetic beauty of these emotions lies in their transformation into spiritual experience.

Pain and joy, separation and union-each has its place in the rhythm of divine love. The Indian artist does not shun worldly emotion but refines it, transforming passion into compassion, desire into devotion. In this lies the genius of the Indian aesthetic vision: to spiritualize the senses rather than suppress them.

7·4·5 The Cosmic Symbolism of Radha-Krishna

The union of Radha and Krishna also symbolizes the cosmic principles of *Prakriti* (Nature, the feminine energy) and *Purusha* (Spirit, the masculine consciousness). In their dance of love, creation itself unfolds. Radha's movement towards Krishna mirrors the universe's eternal longing for its source. Their embrace represents the dissolution of duality and the return to primordial unity.

In this metaphysical sense, Radha's love is not personal—it is cosmic. She becomes the eternal energy through which divine consciousness expresses itself as love, beauty, and harmony. As the 15th-century saint Chaitanya Mahaprabhu experienced, Radha and Krishna are one soul in two bodies. Their union is the supreme symbol of *ananda*—bliss beyond all distinctions.

Thus, the union of *Shringara* and spirituality in Indian art is not a contradiction but a culmination. It affirms that the divine can be approached through beauty, that emotion can become meditation, and that the heart's longing is itself a sacred path.

8. Conclusion

Radha stands as one of the most profound and complex symbols in Indian spiritual and aesthetic thought. She embodies the perfect synthesis of *Shringara* and a*dhyatma*—love and spirituality—wherein human emotion transcends into divine realization. Through Radha, Indian philosophy transforms the personal into the cosmic, the sensual into the sacred, and the emotional into the eternal.

In literature, poetry, and painting alike, Radha is not merely the beloved of Krishna; she is the embodiment of the soul's eternal longing for the Divine. Her yearning, separation, and ultimate union with Krishna represent the journey of the human spirit from ignorance to enlightenment, from duality to oneness. This symbolic relationship reveals the essence of Indian aesthetics-where beauty *(saundarya)* and devotion *(bhakti)* are two streams flowing toward the same ocean of truth.

The poets of the Bhakti movement—Jayadeva, Vidyapati, Chandidas, Surdas, and others—transformed the narrative of Radha-Krishna into a language of divine love. Their verses inspired painters across centuries, from the miniature traditions of Rajasthan and Kangra to the lyrical brushwork of Bengal. Each artist and poet sought to capture not the external charm of Radha but her inner luminosity-the radiance of the soul touched by divine love.

In these artistic representations, Radha becomes the eternal feminine-the Mahashakti-who awakens divine consciousness in all beings. Her beauty, adorned with humility, grace, and surrender, reveals the profound truth that love is the most sacred form of worship. The rasa of her devotion continues to inspire not only art and literature but also the spiritual imagination of India itself.

Thus, the symbol of Radha transcends myth, history, and art. She represents the eternal dialogue between the finite and the infinite, between the seeker and the sought. Her presence in Indian aesthetics affirms that spirituality does not lie in renunciation of life, but in its perfect fulfillment through love. In Radha, *Shringara* attains sanctity, and spirituality attains beauty.

Radha, therefore, is not merely a figure from mythological past-she is the timeless rhythm of divine love that continues to pulsate in the heart of Indian art, poetry, and devotion. Through her, we understand that to love deeply is to worship, and to worship truly is to merge with the Divine.

References

1. Sumitranandan Pant, "Shringaar aur Adhyatma", Dahiya, Kailash (ed.), ***Kala aur Sahitya***, New Delhi: Publication Division, Ministry of Information and Broadcasting, Government of India, 2009, 25.
2. G. K. Agarwal, ***Kala Sundraya aur Samikshashastra***, Aligarh: Lalit Kala Prakashan, 1996, 167.
3. Radheshyam Khemka (ed.), ***Kalyan: Shrimad Devi Bhagavatank***, Gorakhpur: Gita Press, 2009, 355.
4. Dr. Shyambihari Agrawal, ***Bhartiya Chitrakala aur Kavya (Madhyakaleen Bhartiya Chitrakala)***, Allahabad: Kitab Mahal, 1996, 49-50.
5. Radhakamal Mukherjee, ***Bhartiya Kala ka Vikas***, Allahabad: Saraswati Press, 1977, 75.
6. Prakash Veereshwar & Nupur Sharma, ***Aesthetics (Philosophy of Art)***, Meerut: Krishna Prakashan Media (P) Ltd., 2001, 29.
7. L. K. Sharma, ***A Brief History of Indian Painting***, Meerut: Goel's Publishing House, 2008, 72.
8. L. K. Sharma, *Ibid.*, 114-115.

★

Article Received on March 26, 2026; Accepted on April 15, 2026

JOURNAL OF NATIONAL DEVELOPMENT

PEER REVIEWED, INDEXED & REFEREED Bi-ANNUAL INTERNATIONAL JOURNAL

ISSN 0972-8309

https://www.jndmeerut.org

[Vol. 39, No. 1 (Summer), 2026]

https://doi.org/10.62047/JND.2026.06.30.34

Menstrual Hygiene Practices in Nepal's Raji Community: A Social Work Assessment

Radhika Paneru[1], *Khagendra Prasad Adhikari*[2] *& Tara Adhikari*[3]

[1]Ph.D Scholar, Department of Social Work, Tribhuwan University, Kirtipur (Nepal) E-mail:<radhika.paneru@mu.edu.np>
ORCID ID: https://orcid.org/0009-0009-8654-3113.

[2]Assistant Professor, Graduate School of Humanities and Social Sciences, Mid-West University, Surkhet (Nepal) E-mail:<khagendra.adhikari@mu.edu.np> ORCID ID: https://orcid.org/0009-0003-4473-2262

[3]Master in Adult Health Nursing, Institute of Medicine, Tribhuwan University, Kathmandu (Nepal) E-mail:<staradh12@gmail.com>

Abstract

Menstrual hygiene practices remain a neglected and stigmatized issue, particularly among endangered, marginalized and indigenous communities in Nepal, such as the Raji, who face systemic challenges including poverty, marginalization, and limited access to health and sanitation services. This paper explores the use of menstrual materials, the availability of hygiene facilities and disposal practices and its impact on environment. The study also assesses the role of socio-cultural beliefs in shaping menstrual hygiene practices. A cross-sectional descriptive study was conducted among 43 Raji households in Nepal using a census approach. Data were collected through structured interviews and direct observations to assess menstrual material use, hygiene facilities, disposal practices, and cultural taboos. Descriptive and bivariate analyses were performed using SPSS. Ethical protocols, including informed consent and confidentiality, were strictly followed.The study revealed a strong preference for disposable pads among Raji women and girls,with limited privacy and hygiene facilities, persistent cultural taboos, and most disposed of pads unsafely in rivers. Education level was significantly associated with disposable pad use, and older women reported greater privacy during menstrual changes; however, further research with larger samples is needed to confirm these findings. Raji women face challenges in menstrual hygiene due to poor facilities, cultural taboos, and unsafe disposal. Disposable pads are preferred, but education and infrastructure gaps remain.Social work should promote WASH improvements and education to empower women and girls and improve menstrual health.

Keywords

Menstrual hygiene, Raji, Vulnerable, Women.

Centre For Studies of National Development, Meerut

Editorial Office : D-59, Shastri Nagar, Meerut - 250 004 (INDIA)

Ph. : 0121-2763765, +91-9997771669, +91-9412200765

3

Menstrual Hygiene Practices in Nepal's Raji Community: A Social Work Assessment

1. Background of the Study

Menstruation is a natural biological process by approximately 1.8 billion people across the world who menstruates. However, many of them face significant challenges in managing their menstrual materials, menstrual hygiene safely and disposal practices. According to the World Bank (2021), at least 500 million women and girls globally lack access to adequate facilities for managing their menstrual health. According to the World Bank (2021), at least 500 million women and girls globally lack access to sufficient facilities for managing their menstruation management. Further, the use and choice of menstrual materials included sanitary pads, reusable cloths, tampons, or menstrual cups depend on affordability, availability, cultural beliefs, and access to menstrual health education. In many marginalized communities, women and girls use unhygienic alternatives such as rags, newspapers, or even leaves (Mantsebo, 2021) due to period poverty surrounding menstruation (Michel *et al.*, 2022). Use of unhygienic materials can increase the risk of reproductive tract infections and other health issues.

Menstrual hygiene facilities such as sufficient water, sanitation and hygiene materials are critical for menstrual hygiene practices. Therefore, to better understand service delivery challenges for vulnerable and marginalized groups emphasized the five normative dimensions of the human rights to water and sanitation: access, availability, quality, acceptability, and affordability to enhance menstruation-related challenges (Ezbakhe, Giné-Garriga, & Pérez-Foguet, 2019). Another often overlooked aspect is the disposal of used menstrual materials. Improper disposal methods such as flushing pads down toilets, open burning, throw in river/stream, throwing in open spaces are widespread and create significant health and environmental risk. A study by WaterAid (2018) discovered that more than 70% of women in some regions disposed of used products improperly according to lack of access to safe disposal methods like incinerators or sanitary bins.

Socio-cultural norms can limit girls' access to public spaces and reduce their confidence to seek essential information about menstrual hygiene. Therefore, menstrual education should be viewed not just as a concern for girls, but as a vital issue for the whole community (Kpodo *et al.*, 2022). Cultural taboos, lack of awareness, and inadequate government support continue to perpetuate poor menstrual hygiene practices (Wyckoff, 2024). Many women and girls are forced to manage their periods in silence (Rothchild & Piya, 2020), without adequate menstrual knowledge, hygiene facilities and disposal practices. Therefore, yet it stigmatized subject among indigenous communities in Nepal. The Raji community classified as an endangered indigenous group by the government of Nepal faces unique challenges due to poverty, social exclusion, and limited access to services. Thus, this study seek to identify used the menstrual material, the availability of menstrual hygiene facilities and disposal practices and environmental impact. Further, to assess the cultural beliefs and taboos during menstruation and suggest social work intervention to improve menstruation hygiene practices of Raji's girls and women.

2. Review of Previous Studies

Menstrual material refers to disposable sanitary pads, reusable pads, tampons, and menstrual cups. These are the menstrual sanitation tools devices (Warashinta, Astari & Merdikawati, 2021). Similarly, Sommer *et al.* (2015) includes managing menstrual bleeding hygienically and comfortably such as reusable cloth pads, disposal sanitary pads, tampons, menstrual cups, period underwear and natural substances like leaves and ash locally absorbent materials in resource limited communities.Access of menstrual facilities, availabilities of materials, economic status, and cultural factors are influential factors to choice for menstruation management.Access to safe and sound and appropriate menstrual hygiene products include safe, private and clean changing space, soap and clean water to wash hands and materials, and proper disposal mechanisms for used material, are crucial for advancing menstrual health, preventing infections, and maintaining dignity across menstruation (UNICEF, 2019).

These materials are used to handle discharged blood and disposed of appropriately to maintain hygiene and reduce environmental impact. In a marginalized community, girls and women are facing more challenges of insufficient menstrual material, lack of hygiene facilities, and a proper disposal mechanism that brings environmental problems (Cohn & Blumberg, 2020).Kaur *et al.* (2018) reveal that to address the disposal issue, emphasis should be placed on using reusable sanitary or cloth pads. Girls and women should be informed of the repercussions of dumping menstrual products openly or flushing them in toilets.Menstrual waste disposal must be user-centered and integrated into WASH programs, not treated in isolation. Designs should reflect socio-cultural norms (e.g., taboos, product handling), product availability and quality, and existing sanitation infrastructure (Elledge *et al.*, 2018)Therefore, alongside access to menstrual materials and hygiene facilities, safe disposal options are a key aspect to comprehensive understanding menstrual hygiene management.

The study by Ibaishwa and Achakpa (2016), found that culture influence significantly to menstrual hygiene management among marginalized women and adolescent girls as well as significant different educated and uneducated marginalized women and adolescent girls on menstruation hygiene management.

3. Methodology

This study employed a cross-sectional descriptive research design to investigate the use of menstrual materials, hygiene facilities, and disposal practices among the Raji community, an indigenous and marginalized group in Nepal. The research focused on collecting household-level data to understand the current state of menstrual hygiene facilities in the community. A total of 43 households from the Raji community were included in the study. Since the population size was small and manageable, the census method was used to include all households. This ensured comprehensive coverage and avoided selection bias.

Structured questionnaires were developed as the primary tool for data collection. Both closed- and open-ended questions were included, covering areas such as types of menstrual materials used, availability and use of hygiene facilities, methods of disposal, cultural taboos and related socio-demographic information. The researcher conducted self-interviews with respondents from each household to ensure clarity and accuracy. This method was particularly helpful to explain questions when needed and to build trust with the participants, especially considering possible literacy or language barriers.

The researchers observed field directly to gain deeper insights into the real-life practices,environmental conditions, the availability of hygiene facilities such as toilets, water sources, and drying spaces for reusable cloths, as well as common disposal method of the respondents. These observations supported confirm the self-reported data and added context to the responses.Following data collection, all responses were coded and entered into SPSS for analysis. Descriptive statistical tools such as frequencies, percentages, bivariate analysis such as cross-tabulations and chi-square tests were used to examine the relationship between variables, such as availability of menstrual material according to age, Menstrual knowledge according to age and education & Chi-square test the use of disposal sanitary pad and education.

Ethical considerations were strictly followed throughout the study. Verbal informed consent was obtained from each respondent after clearly explaining the purpose and voluntary nature of the study. All participants were assured of confidentiality and anonymity, and they were informed of their right to withdraw from the study at any time without any consequences.

4. Data Presentation and Analysis

The following table depicts demographic information of Raji's sampled girls and women:

Table-1: Demographic Information of Raji's Girls and Women

Variables	Frequency	Percentage
Age in Completed Years		
14-24	18	41.9
25-34	16	37.2

35-44	8	18
45-54	1	2.3
Occupation		
Student	12	27.9
Agriculture	25	58.1
Housewife	5	11.6
Shopkeeper	1	2.3
Educational Level		
1-8	10	23.3
9-12	25	58.1
No formal education	8	18.6
Class (in terms of economic status)		
Low	22	51.2
Medium	21	48.8
Marital Status		
Single	17	39.5
Married	26	60.5

Source: Field Survey, 2026.

The demographic profile indicates a predominantly young population, with a large proportion of individuals in the younger age groups. Occupational patterns suggest a largely rural setting, as agriculture emerges as the primary livelihood, alongside a notable presence of students. Educational attainment reflects moderate progress, with many individuals having reached secondary-level schooling, though a segment of the population remains without formal education. Socioeconomic conditions appear to be concentrated within the lower and middle strata, with a slight inclination toward economically weaker sections.

Despite significant educational attainment among many individuals, the limited occupational diversity suggests a critical need for skill improvement, vocational training, and delayed access to non-agricultural employment opportunities. Overall, the findings point out that the community's human resource potential-particularly that of younger, more educated women-remains underutilized. Targeted interventions focusing on education, livelihood development, and women's empowerment are essential to harness this untapped potential.

Table-2: Use of Menstrual Materials during Periods

Categories	Reusable Sanitary Pad	Disposal Sanitary Pad	Cloths	Homemade Materials
Never	88.4 (38)	16.3 (7)	20.9 (9)	93.0 (40)
Rarely	4.7 (2)	11.6 (5)	7.0 (3)	—

Sometimes	2.3 (1)	18.6 (8)	37.2 (16)	7.0 (3)
Often	2.3 (1)	9.3 (4)	14.0 (6)	—
Always	2.3 (1)	44.2 (19)	20.9 (9)	—
Total	100 **(43)**	**100.0** **(43)**	**100.0** **(43)**	**100.0** **(43)**

Source: Field Survey, 2026; Actual figures are shown in parentheses.

The analysis of menstrual hygiene product usage among respondents reveals that disposable sanitary pads are the most frequently used, but it is not available sufficiently in the community level and nominal respondent reported never using the sanitary pad. In contrast, reusable sanitary pads and homemade materials are largely unused. Cloth demonstrates a more varied usage pattern, with more than one-third using it sometimes and one-fifth always, suggesting continued reliance on traditional methods. The data indicate a strong preference for disposable products, likely due to their convenience and availability, while low usage of reusable and homemade options may reflect barriers related to accessibility, awareness, or cultural acceptability.

Table-3: Access to Private Place to Manage Changing Pads

Access	Frequency	Percentage
Yes	26	60.5
No	17	39.5
Total	**43**	**100**

Source: Field Survey, 2026.

The data show that majority respondents have access to a private space, while few respondents do not have the private place. This means that nearly 2 out of every 5 women lack a private place, which can have significant implications for their privacy, safety, mental well-being, and ability to manage changing pads, which helps promote dignity and privacy in managing menstrual blood. The absence of a private space is particularly concerning to gender equity, as it may limit women's autonomy and freedom in managing menstrual blood. Ensuring access to private spaces could play a crucial role in improving menstrual health and wellbeing during menstruation of girls and women.

Table-4: Availability of Menstrual Material according to Age Group

Age Group	Availability of Menstrual Material			Total
	Yes	No	Sometimes	
14-24 years	44.4 (8)	27.8 (5)	27.8 (5)	100.0 (18)
25-34 years	50.0 (8)	12.5 (2)	37.5 (6)	100.0 (16)

35-44 years	50.0 (4)	12.5 (1)	37.5 (3)	100.0 (8)
45-54 years	—	100 (1)	—	100.0 (1)
Total	46.5 (20)	20.9 (9)	32.6 (14)	100.0 (43)

Source: Field Survey, 2026; Actual figures are shown in parentheses.

The cross-tabulation of age and availability of menstrual materials highlights notable variations across different age groups among the respondents. Access appears more constrained among younger women, particularly those in the 14-24 age group, where consistent availability is relatively limited and irregular access is more common. A similar pattern is observed among those aged 25-34, with only a portion reporting regular availability and others experiencing occasional or no access. In contrast, women in the 35-44 age group demonstrate comparatively better access, indicating some improvement with increasing age. The lone respondent in the oldest age category reported a complete lack of access.

Overall, the findings suggest that consistent availability of menstrual materials remains insufficient for a significant section of the population, with younger women being particularly disadvantaged. This pattern points to underlying inequalities in menstrual health access and underscores the need for targeted interventions to ensure reliable and equitable availability of menstrual products, especially among women in the younger age groups.

Table-5: Frequency of Challenges of Menstrual Facilities

Challenges	Frequency of Challenges				
	Never	Rarely	Some-times	Often	Always
No access to clean water	16	3	11	5	8
No access to soap	17	1	11	4	10
No place to wash or dry reusable materials	25	1	5	5	7
No disposal bin or proper wash system	20	3	5	1	14
Dirty or unsafe toilet	8	2	13	5	14
Embarrassment or fear being seen	23	4	3	8	5
Facilities are too far from home	25	4	3	8	3
Limited time to manage menstruation	23	5	5	7	3
Others	39	0	0	3	1

Source: Field Survey, 2026.

Table-5 indicates that Raji girls and women face multiple, interconnected challenges related to menstrual hygiene management. Access to essential resources such as clean water and soap is not consistently ensured, with many respondents experiencing periodic difficulties. In addition, facilities for washing and drying reusable materials, as well as safe disposal mechanisms, remain inadequate for a considerable segment, reflecting gaps in basic WASH infrastructure.

Beyond these material constraints, emotional and social barriers are also evident, as feelings of embarrassment and fear of being seen continue to shape menstrual practices, pointing to the persistence of stigma within the community. Although issues such as unsafe sanitation facilities or long distances to access them are less frequently reported, challenges related to time constraints and lack of privacy still significantly affect menstrual management. Taken together, these findings underscore the need for comprehensive interventions that combine improvements in WASH infrastructure with increased awareness and sensitization around menstrual health and dignity.

Table-6: Use of Cleaning Material to Wash Hand and Reusable Menstrual Materials

Categories	Use of Cleaning Material				
	Water only	Water & soap	water & sand	Ash & water	Traditional method
Never	37.2 (16)	9.3 (4)	93.0 (40)	95.3 (41)	95.0 (41)
Rarely	18.6 (8)	9.3 (4)	—	2.3 (1)	2.3 (1)
Sometimes	9.3 (4)	2.3 (1)	—	2.3 (1)	2.3 (1)
Always	34.9 (15)	79.1 (34)	7.0 (3)	—	—
Total	100.0 (43)	100.0 (43)	100.0 (43)	100.0 (43)	100.0 (43)

Source: Field Survey, 2026; Actual figures are shown in parentheses.

The data indicate a clear preference for hygienic cleansing practices among respondents, with the combined use of water and soap emerging as the most consistently adopted method for menstrual hygiene. In contrast, reliance on water alone appears less consistent, suggesting that it is often used as a secondary option when soap is unavailable. The use of less hygienic or traditional alternatives—such as water with sand, ash with water, or other customary practices—remains negligible and largely absent from regular behaviour. Overall, these patterns reflect a positive shift toward safer and more hygienic menstrual practices within the community. This trend may be indicative of improved access to basic resources as well as growing awareness regarding menstrual health and hygiene.

Table-7: Disposal Practices used for Menstrual Materials

Disposal Practices	Frequency	Percentage
Burn them	1	2.2
Bury them	8	17.4
Throw them in open space	2	4.3
Throw them in river/steam	28	60.9
Put them in dustbin	2	4.3
Others	5	10.9
Total	**46**	**100.0**

Source: Field Survey, 2026.

The data on disposal practices indicate that the predominant method among respondents is the disposal of used menstrual materials in rivers or streams, raising serious environmental and public health concerns. A smaller segment resorts to burying the materials, which, although more discreet, may still carry ecological risks depending on the conditions of disposal. Safer and more hygienic options—such as burning under controlled conditions or using designated dustbins—are reported only rarely. Additionally, some respondents dispose of materials in open spaces or rely on other unspecified methods, reflecting inconsistency and potential safety risks in current practices.

Overall, these patterns highlight significant gaps in both awareness and infrastructure related to menstrual waste management. The findings underscore the urgent need for targeted interventions that promote safe, hygienic, and environmentally sustainable disposal practices through improved facilities and community-level sensitization.

Table-8: Knowledge about Menstrual Materials and Disposal Practices

Categories	Frequency	Percentage
Knowledge about Menstrual Materials		
Yes	34	79.1
No	9	20.9
Knowledge about Disposal Practices		
Yes	26	60.5
No	17	39.5

Source: Field Survey, 2026.

The data on menstrual materials and disposal practices among Raji girls and women point to a mixed scenario of progress alongside persistent gaps in menstrual health awareness. A substantial proportion of respondents demonstrate familiarity with menstrual materials, indicating a growing level of awareness regarding options for menstrual management. However, this awareness does not extend equally to safe disposal practices, where a noticeable gap remains in knowledge and understanding.

This disparity becomes particularly concerning in light of earlier findings that reflect the continued use of environmentally unsafe disposal methods, such as discarding materials in rivers or open spaces. Taken together, the results suggest that while general awareness about menstruation is improving, there is a pressing need for focused education on safe and hygienic disposal practices. Strengthening such awareness, alongside the provision of appropriate facilities, is essential for safeguarding both personal health and environmental sustainability.

Table-9: Knowledge about Menstrual Materials according to Age Group

Age Group	Knowledge		Total
	Yes	No	
14-24 years	13	5	18
25-34 years	14	2	16
35-44 years	7	1	8
45-54 years	0	1	1
Total	**34**	**9**	**43**

Source: Field Survey, 2026.

The data indicate that awareness of menstrual materials is generally high across most age groups, with a clear majority of respondents reporting familiarity with available options. Awareness appears comparatively lower among younger respondents in the 14–24 age group, while women in the 25–34 and 35–44 age categories demonstrate relatively higher and more consistent levels of knowledge. The lone respondent in the oldest age group reported a lack of awareness, though this observation remains limited due to the small sample size.

Overall, the findings point to a broadly encouraging level of awareness, particularly among women in the middle age groups. However, the comparatively lower awareness among younger respondents highlights the need for targeted menstrual health education initiatives, especially for adolescents and young adults, to ensure more uniform knowledge across all age groups.

Table-10: Knowledge about Menstrual Materials according to Educational Level

Educational Level	Knowledge		Total
	Yes	No	
Grades 1-8	70.0 (7)	30.0 (3)	100.0 (10)
Grades 9-12	80.0 (20)	20.0 (5)	100.0 (25)
No formal education	87.0 (7)	12.5 (1)	100.0 (8)
Total	**79.1 (34)**	**20.9 (9)**	**100.0 (43)**

Source: Field Survey, 2026; Actual figures are shown in parentheses.

The analysis indicates a generally high level of awareness about menstrual materials across all educational categories. Even among respondents without formal education, awareness remains notably strong, while those with primary and secondary education also demonstrate comparable levels of knowledge. Although there is a slight tendency for awareness to improve with higher levels of education, the differences are not particularly pronounced, suggesting that knowledge is relatively widespread irrespective of formal schooling. These findings imply that, in addition to formal education, informal channels—such as community interactions, peer networks, and media exposure—may play a crucial role in disseminating information on menstrual hygiene. This highlights the importance of strengthening both formal and community-based approaches to ensure comprehensive and sustained awareness.

Table-11: Knowledge about Disposal of Menstrual Materials according to Education

Educational Level	Knowledge		Total
	Yes	No	
1-8	30.0 (3)	70.0 (7)	100.0 (10)
9-12	72.0 (18)	28.0 (7)	100.0 (25)
No formal education	62.5 (5)	37.5 (3)	100.0 (8)
Total	**60.5 (26)**	**39.5 (17)**	**100.0 (43)**

Source: Field Survey, 2026; Actual figures are shown in parentheses.

The data suggest a positive association between educational attainment and knowledge of appropriate menstrual waste disposal practices. Awareness appears relatively limited among respondents with primary-level education, while those with secondary education demonstrate a considerably higher level of understanding. Respondents without formal education show a moderate level of awareness, indicating that knowledge is not entirely dependent on formal schooling. Overall, a clear majority of respondents report some understanding of proper disposal practices, though gaps remain across educational groups. These findings highlight the role of education in shaping awareness of menstrual waste management and underscore the importance of integrating menstrual hygiene education into school curricula, alongside strengthening community-based outreach initiatives to ensure broader and more consistent dissemination of information.

Frequency of cultural restriction during menstruation among sampled Raji's Girls and Women are depicted in the table-12 on next page. The data highlight the continued influence of deeply rooted traditional norms and taboos. The most stringent restrictions are associated with religious practices and sacred spaces, where women are consistently prohibited from entering temples or participating in worship-related activities. Limitations also extend to the domestic sphere, with restrictions on sleeping arrangements and access to spaces such as the kitchen and kitchen garden, reflecting the perception of menstruation as impure within household settings.

Table-12: Frequency of Cultural Restriction during Menstruation among Raji's Girls and Women

Restriction	Frequency				
	Never	Rarely	Some-times	Often	Always
To enter kitchen	34	0	1	0	8
To enter worshipping room	12	0	0	0	31
To participate cultural and social function	25	3	7	1	7
To enter kitchen garden	26	0	2	2	13
To sleep bedroom	29	0	0	0	14
To go to temple	7	1	0	0	35
To eat dairy food	20	4	6	4	9
To go to water resources	28	1	5	1	8
To go to school	35	1	4	0	3
Others	39	0	3	0	1

Source: Field Survey, 2026.

Although fewer restrictions are reported in areas such as education and public participation, some respondents still experience occasional exclusion from school and social or cultural events. Dietary restrictions, particularly concerning the consumption of certain foods like dairy products, also persist for a segment of the population. Overall, these patterns indicate that, despite increasing awareness about menstruation, cultural and religious taboos continue to shape women's daily lives, constraining their mobility, autonomy, and participation. Addressing these challenges requires culturally sensitive interventions that combine education, community dialogue, and sustained engagement to reduce stigma and promote greater acceptance and empowerment.

Table-13: Chi-Square Test of Independence Between Education and Use of Disposal Pad **(N=43)**

Test	^{2}	df	
Pearson Chi-Square	17.765[a]	8	0.023
Likelihood Ratio	19.613	8	0.012
Linear-by-Linear Association	1.119	1	0.29

Note. < .05 is statistically significant.

[a.] 14 cells (93.3%) had expected count less than 5.

The minimum expected count was 0.74.

The Chi-square test results suggest a statistically significant association between education level and the use of disposal pads, as indicated by both the Pearson Chi-square and Likelihood Ratio statistics, which meet the conventional threshold for significance. However, the Linear-by-Linear Association test does not demonstrate a significant linear trend, implying that the relationship between the variables may not follow a consistent directional pattern across categories.

Despite the observed significance, the robustness of these findings is limited by violations of key test assumptions. A substantial proportion of cells have low expected frequencies, which compromises the reliability of the Chi-square estimates. As a result, the interpretation of this association should be approached with caution. To obtain more reliable results, alternative approaches—such as applying Fisher's Exact Test or consolidating categories to improve cell distribution—would be more appropriate for accurate statistical inference.

Table-14: Symmetric Measures of Association Between Age and Changing Privacy

Measure	Value	SE[a]	T[b]	-value
Pearson's R	0.32	0.079	2.164	.036[c]
Spearman Correlation	0.346	0.084	2.361	.023[c]

Note: N=43. SE=Asymptotic Standard Error[a]. *t*-values use asymptotic SE assuming the null hypothesis[b]. -values are based on normal approximation[c]. Significant at <.05.

The symmetric measures reveal a moderate positive association between age and access to privacy for changing menstrual materials. Both Pearson's correlation and Spearman's rank correlation indicate statistically significant relationships, suggesting the presence of both linear and monotonic patterns within the data. These findings imply that with increasing age, respondents are more likely to report better access to private spaces for managing menstruation. Overall, the results point to a meaningful relationship between the variables within the sample, indicating that age may play a role in shaping access to menstrual hygiene-related privacy.

Table-15: Symmetric Measures of Association Between Age and Changing Behaviour of Menstrual Materials in Period

Measure	Value	SE[a]	T[b]	-value
Pearson's R	.199	.138	1.302	.200[c]
Spearman Correlation	.176	.146	1.145	.259[c]

Note: N=43. SE=Asymptotic Standard Error[a]. *t*-values use asymptotic SE assuming the null hypothesis[b]. -values are based on normal approximation[c]. Significant at <.05.

The symmetric measures indicate a weak positive association between age and the changing behaviour of menstrual materials during menstruation. However, the relationship is not statistically significant, as reflected in both Pearson's and

Spearman's correlation tests. This suggests the absence of a meaningful linear or monotonic relationship between the variables within the sample. Accordingly, any observed association is likely attributable to random variation rather than a consistent or systematic pattern, indicating that age does not play a significant role in influencing changing practices in this context.

Table-16: Symmetric Measures of Association Between Marital Status and Changing Behaviour of Menstrual Materials

Measure	Value	SE[a]	T[b]	-value
Pearson's R	.232	.145	1.529	.134[c]
Spearman Correlation	.232	.145	1.529	.134[c]

Note: N=43. SE=Asymptotic Standard Error[a]. *t*-values use asymptotic SE assuming the null hypothesis[b]. -values are based on normal approximation[c]. Significant at <.05.

The symmetric measures suggest a weak to moderate positive association between marital status and the changing behaviour of menstrual materials. However, this relationship is not statistically significant, indicating that the observed pattern may be attributable to chance rather than a consistent underlying relationship. Thus, within this sample, there is insufficient evidence to support a meaningful linear or monotonic association between marital status and menstrual material changing practices.

5. Discussion

The study reveals a clear preference for disposable sanitary pads among Raji girls and women, reflecting a broader shift toward modern menstrual products driven by perceived convenience and accessibility. This pattern is consistent with the findings of Das *et al.* (2015), who observed a similar reliance on disposable pads in rural India. In contrast, the minimal use of reusable pads and homemade alternatives points to barriers such as cultural stigma, limited awareness, and concerns regarding acceptability—factors also emphasized by McMahon *et al.* (2011). Although overall awareness of menstrual materials appears relatively high, younger respondents demonstrate comparatively lower levels of knowledge, indicating gaps in adolescent-focused education. This finding aligns with Phillips-Howard *et al.* (2016), which underscores the importance of targeted educational interventions to improve menstrual knowledge and practices among adolescents.

Access to private spaces and adequate water, sanitation, and hygiene (WASH) facilities remains a critical concern. A substantial proportion of respondents lack access to private changing spaces, reinforcing the argument made by Jewitt and Ryley (2014) that privacy is central to effective menstrual hygiene management. In addition, inconsistent access to water and soap further compromises hygienic practices. Socio-cultural barriers compound these infrastructural challenges, as restrictions related to religious practices and social norms continue to limit women's mobility and participation during menstruation. Such patterns mirror observations by Joseph (2021), highlighting the persistence of deeply embedded cultural taboos. Together, these structural and social constraints underscore ongoing gender inequalities that shape menstrual experiences and restrict full participation in daily life.

Menstrual waste disposal practices raise significant environmental and public health concerns. The widespread disposal of used materials in natural water bodies reflects inadequate infrastructure and limited awareness of safe disposal methods, a pattern also noted by Velasco Perez (2021) in rural contexts. Safer disposal options, such as the use of bins or controlled burning, remain limited, further emphasizing gaps in both facilities and knowledge. While awareness of proper disposal practices is present among a majority of respondents and tends to improve with higher educational attainment, disparities persist across educational groups. This finding is consistent with insights from UNICEF reports (as discussed in Sommer *et al.*, 2021), which highlight the critical role of education in promoting safe menstrual waste management. These results point to the need for integrated interventions combining infrastructure development with targeted awareness campaigns to encourage environmentally sustainable practices.

The statistical analysis further indicates a significant association between education level and the use of disposable menstrual products, although the absence of a clear linear trend suggests a more complex relationship. The reliability of this finding is constrained by methodological limitations, particularly low expected cell counts, and should therefore be interpreted with caution. Additionally, age shows a positive association with access to privacy during menstrual material changing, suggesting that older women may experience relatively better conditions than younger counterparts. In contrast, no significant relationships are observed between age or marital status and changing behaviours, indicating that these factors may not strongly influence such practices within the sample. Overall, these findings highlight the multifaceted nature of menstrual hygiene management and underscore the need for further research with larger and more representative samples to better understand these dynamics.

6. Conclusion

The study highlights a clear preference for disposable sanitary pads among Raji girls and women, reflecting broader trends observed in low-resource settings where convenience and accessibility shape menstrual product choices, as noted by Ahmed *et al.* (2024). Despite this shift toward improved menstrual materials, effective menstrual hygiene management continues to be constrained by persistent challenges, including inadequate privacy, limited access to sanitation facilities and clean water, and unsafe disposal practices, as similarly discussed by Ghosh (2024).

Socio-cultural factors remain equally influential, with entrenched cultural and religious norms continuing to restrict women's autonomy and participation during menstruation, echoing findings by Schmitt (2017). Furthermore, disparities in menstrual health awareness—particularly regarding safe disposal practices—are evident among younger and less educated groups, reinforcing the observations of Kaur *et al.* (2018).

Addressing these interconnected challenges requires a comprehensive and integrated approach that combines improvements in WASH infrastructure, targeted educational initiatives, and sustained community engagement. Such efforts are essential to promote menstrual health equity, ensure dignity in menstrual management, and empower women in marginalized communities.

References

Ahmed, J., Bijarani, S. A., Siddiqui, M. I., Puri, P., & Wassan, S. M., "Eco-Friendliness and Cost-Effectiveness of Reusable Sanitary Pads for Rural Women: A Model for Menstrual Hygiene Management in Low Resource Settings", ***Bangladesh Journal of Medical Science***, 23(4), 2024, 1030-1037.

Brown, J., Cavill, S., Cumming, O., & Jeandron, A., "Water, sanitation, and hygiene in emergencies: summary review and recommendations for further research" ***Waterlines***, 31(1), 2012, 11-29.

Cohn, S., & Blumberg, R. L., "Poverty, Water, Sanitation Insecurities, and the Challenges of Maintaining Menstrual Hygiene", Samuel Cohn & Rae Lesser Blumberg (eds.), ***Gender and Development: The Economic Basis of Women's Power***, Thousand Oaks, California: SAGE Publications, Inc., 2020, 119-144.

Das, P., Baker, K. K., Dutta, A., Swain, T., Sahoo, S., Das, B. S.,&Torondel, B., "Menstrual hygiene practices, WASH access and the risk of urogenital infection in women from Odisha, India", ***PloS one***, 10(6), 2015, e0130777.

Elledge, M. F., Muralidharan, A., Parker, A., Ravndal, K. T., Siddiqui, M., Toolaram, A. P., & Woodward, K. P., "Menstrual hygiene management and waste disposal in low and middle income countries-a review of the literature", ***International Journal of Environmental Research and Public Health***, 15(11), 2018, 2562.

Ezbakhe, F., Giné-Garriga, R., & Pérez-Foguet, A., "Leaving no one behind: Evaluating access to water, sanitation and hygiene for vulnerable and marginalized groups", ***Science of the Total Environment***, 683, 2019, 537-546.

Ghosh, S., "Advancing Women's Health and Dignity: A Comprehensive Analysis of Menstrual Health Management and Rights in India", ***Law and Emerging Issues***, Routledge, 2024, 141-150.

Ibaishwa, R. L., & Achakpa, P., ***Menstrual hygiene management amongst marginalized physically challenged women and adolescent girls in 10 states of Nigeria***, Geneva, Switzerland: Water Supply and Sanitation Collaborative Council, 2016.

Jewitt, S., & Ryley, H., "It'sa girl thing: Menstruation, school attendance, spatial mobility and wider gender inequalities in Kenya", ***Geoforum***, 56, 2014, 137-147.

Joseph, P., ***Hindu Women Devotees and Menstrual Taboos: Gender, Agency and Religion in the case of the Sabarimala Temple***, Doctoral dissertation, Macquarie University, Sydney, Australia, 2022.

Kaur, R., Kaur, K., & Kaur, R., "Menstrual hygiene, management, and waste disposal: practices and challenges faced by girls/women of developing countries", ***Journal of Environmental and Public Health***, Feb 2018(1), Article ID: 1730964.

Kaur, R., Kaur, K., & Kaur, R., (2018). Menstrual hygiene, management, and waste disposal: practices and challenges faced by girls/women of developing countries. Journal of environmental and public health, 2018(1), 1730964.

Kpodo, L., Aberese-Ako, M., Axame, W. K., Adjuik, M., & Gyapong, M., "Socio-cultural factors associated with knowledge, attitudes and menstrual hygiene practices among Junior High School adolescent girls in the Kpando district of Ghana: A mixed method study", ***Plos one***, 17(10), 2022, e0275583.

Mantsebo, T., ***Addressing the Menstrual Health and Hygiene Needs of girls and young women in Zimbabwe***, Vrije Universiteit Amsterdam (VU): KIT (Royal Tropical Institute), 2021.

McMahon, S. A., Winch, P. J., Caruso, B. A., Obure, A. F., Ogutu, E. A., Ochari, I. A., & Rheingans, R. D., " 'The girl with her period is the one to hang her head': Reflections on menstrual management among schoolgirls in rural Kenya", ***BMC International Health and Human Rights***, 11(1), 2011, 7.

Michel, J., Mettler, A., Schönenberger, S., & Gunz, D., " Period poverty: why it should be everybody's business", ***Journal of Global Health Reports***, 6, 2022, e2022009.

Phillips-Howard, P. A., Caruso, B., Torondel, B., Zulaika, G., Sahin, M., & Sommer, M., "Menstrual hygiene management among adolescent schoolgirls in low-and middle-income countries: research priorities", ***Global Health Action***, 9(1), 2016, 33032.

Rothchild, J., & Piya, P. S., "Rituals, Taboos, and Seclusion: Life Stories of Women Navigating Culture and Pushing for Change in Nepal", ***The palgrave Handbook of Critical Menstruation Studies***, 2020, 915-929.

Schmitt, M. L., Clatworthy, D., Ratnayake, R., Klaesener-Metzner, N., Roesch, E., Wheeler, E., & Sommer, M., "Understanding the menstrual hygiene management challenges facing displaced girls and women: findings from qualitative assessments in Myanmar and Lebanon", ***Conflict and Health***, 11(1), 2017, 19.

Sommer, M., Caruso, B. A., Torondel, B., Warren, E. C., Yamakoshi, B., Haver, J., ... & Phillips-Howard, P. A., "Menstrual hygiene management in schools: midway progress update on the "MHM in Ten" 2014-2024 global agenda", ***Health Research Policy and Systems***, 19(1), 2021, 1.

Sommer, M., Hirsch, J. S., Nathanson, C., & Parker, R. G., "Comfortably, safely, and without shame: defining menstrual hygiene management as a public health issue", ***American Journal of Public Health***, 105(7), 2015, 1302-1311.

Unicef, ***Guidance on Menstrual Health and Hygiene***, New York: UNICEF, 2019.

Velasco Perez, M., Sotelo Navarro, P. X., Vazquez Morillas, A., Espinosa Valdemar, R. M., & Hermoso Lopez Araiza, J. P., "Waste management and environmental impact of absorbent hygiene products: A review", ***Waste Management & Research***, 39(6), 2021, 767-783.

Warashinta, D. L., Astari, A. M., & Merdikawati, A., "Analysis of the use of menstrual pad, tampons, and menstrual cup during menarche", ***Journal of Community Health and Preventive Medicine***, 1(2), 2021, 24-31.

WaterAid, ***Menstrual Hygiene Management: Breaking the Silence***, London: WaterAid, 2018.

World Bank Group, ***Menstrual health and hygiene resource package: Tools and resources for task teams***, Washington, DC: World Bank, 2021.

Wyckoff, C., ***An Evaluation of Menstruation Knowledge, Attitudes, Beliefs, and Practices Among Adolescent Girls in Dhulikhel Nepal***, Master's thesis, The Medical College of Wisconsin, 2024.

★

Article Received on March 16, 2026; Accepted on April 15, 2026

JOURNAL OF NATIONAL DEVELOPMENT

PEER REVIEWED, INDEXED & REFEREED Bi-ANNUAL INTERNATIONAL JOURNAL

ISSN 0972-8309

https://www.jndmeerut.org

[Vol. 39, No. 1 (Summer), 2026]

https://doi.org/10.62047/JND.2026.06.30.51

Incidence and Determinants of Poverty among Farmers in the Border Areas of Rural Punjab: An Income and Consumption-based Analysis

Rupinder Kaur[1] *& Harpreet Kaur*[2]

[1]Associate Professor, Department of Economics, Punjabi University, Patiala, Punjab (india) E-mail:<rupinderkaur0076@gmail.com>

[2]Research Scholar, Department of Economics, Punjabi University, Patiala, Punjab (india) E-mail:<harpreetk.31.10@gmail.com>

Abstract

Poverty continues to be a major socio-economic concern in rural India, particularly among agricultural households with limited landholdings. This study examines the incidence and determinants of poverty among farmers in the border areas of rural Punjab using primary data collected during 2021-22. Poverty is estimated using multiple approaches, including the Tendulkar and Rangarajan criteria, World Bank extreme and moderate poverty lines, and relative poverty thresholds based on state per capita income. Both income-based and consumption-based poverty measures are employed to capture absolute and relative deprivation. The findings reveal that the incidence of poverty is high among marginal farmers across all measures followed by the small farmers, while the semi-medium and medium farmers are relatively less affected. Regression results show that family size, dependency ratio, farm size, subsidiary income, education, and asset ownership significantly influence poverty outcomes.

Keywords

Rural poverty, Farmers, Border areas, Punjab.

Centre For Studies of National Development, Meerut

Editorial Office : D-59, Shastri Nagar, Meerut - 250 004 (INDIA)

Ph. : 0121-2763765, +91-9997771669, +91-9412200765

4

Incidence and Determinants of Poverty among Farmers in the Border Areas of Rural Punjab: An Income and Consumption-based Analysis

1. Introduction

Poverty is conceptualized as a condition where individuals or families lack the resources to meet their minimum needs and struggle to maintain a basic standard of living. Poverty is a imperative global issue, and India despite its status as a developing and densely populated nation fights with poverty. Poverty goes beyond mere financial insufficiency; it embodies a social reality where a segment of society struggles to meet even their most fundamental needs. Human Rights underscores the universal entitlement to a standard of living conducive to health and well-being, encompassing essentials like food, clothing, shelter, health care, and vital social services (Junofy, 2013). In India, poverty is now also assessed using multidimensional indicators rather than only calorie-based income levels. Around 14.96 per cent of the population was multidimensionally poor in 2019-21, which declined further to about 11.28 per cent in 2022-23 (NITI Aayog, 2023). Empirical studies on rural poverty in India consistently emphasize the inverse relationship between farm size and poverty incidence. Ravallion and Datt (1996) demonstrated that land ownership and agricultural growth significantly reduce rural poverty, though benefits are unevenly distributed. Ghosh (2018) and Joshi and Rana (2020) observed that marginal and small farmers remain vulnerable due to limited asset ownership and dependence on agriculture. Consumption-based studies highlight that poverty persists even when minimum calorie norms are met. Deaton and Drèze (2009) argue that traditional poverty lines underestimate deprivation by ignoring non-food necessities. Kundu and Sarangi (2016) shows that relative consumption poverty remains high among smallholders despite improvements in food security. Several studies identify household size, education, asset ownership, and non-farm income as crucial determinants of poverty (Tilak, 2005; Mehta & Naveen, 2017). Recent literature also advocates the use of relative poverty measures to better capture inequality in economically advanced regions (Bhalla & Kaur, 2011; Chakrabarti, 2021).

Punjab, often perceived as one of India's more prosperous states, presents a paradox wherein agricultural prosperity coexists with widespread agrarian distress among the marginal and small farmers. The border areas of rural Punjab face additional vulnerabilities due to fragmented landholdings, limited diversification opportunities, rising input costs, and socio-political uncertainties. These factors make an in-depth assessment of poverty in these regions particularly relevant. The present study seeks to contribute to the literature by providing a comprehensive assessment of poverty among farmers in the border areas of rural Punjab using different poverty benchmarks and by identifying key determinants influencing income-based and consumption-based poverty. While existing studies provide valuable insights, there is limited empirical work focusing specifically on the border areas of rural Punjab using both income and consumption perspectives. This study attempts to fill this gap.

2. Objectives of the Study

Objectives of this study are two-fold:

1. Estimate the incidence of income-based and consumption-based poverty among different categories of farmers.
2. Identify key determinants influencing poverty among different categories of farmers.

3. Research Methodology

The study is based on primary data collected through a structured field survey conducted during 2022-23 in the border districts of rural Punjab. There are 20 development blocks which lie on the international border. All 20 development blocks were selected as the primary area of investigation. One village was selected from each development block located within 10 kilometers of the international border in Punjab. A total of 20 villages were chosen from six districts adjoining the India-Pakistan border. A representative proportional sample of 30 per cent of farmers from each category was randomly selected for the survey. A total of 423 farm households were selected for the survey across all 20 villages. Out of 423 selected farm households, 134 farmers belong to the category of marginal farmers, 137 to small farmers, 82 to semi-medium farmers, 54 to medium farmers and 16 to large farmers.

3·1 Criteria for Measurement of Poverty

Poverty is measured using several established criteria to provide a comprehensive analysis of poverty levels. These thresholds help identify the varying degrees of poverty among farmers, facilitating targeted interventions. The prevalence of poverty has been analyzed on the basis of following criteria:

Tendulkar criterion: Tendulkar committee was constituted by the Planning Commission to review the methodology for estimation of poverty in India In 2005. For 2004-05, the poverty line using by this methodology is estimated to be Rs. 543.51 per capita, per month for the rural areas of Punjab (GoI, 2009). For this study, figures were adjusted using the consumer price index for agricultural and rural labourers for the year 2021-22 (GoI, 2022). Consequently, the annual poverty line comes to be Rs. 20947.09. Hence, all the farmer households having per capita income or per capita consumption expenditure below Rs. 20647 per annum has been considered as poor households. The most widely used measure of poverty is the Head-Count measure, given by the proportion of the total population falling below the specified poverty income.

Rangarajan criterion: An Expert Group under the chairmanship of Dr. C. Rangarajan, to review the methodology for measurement of poverty in the country, was constituted by the Planning Commission in June 2012. The Rangarajan Committee's broader definition of poverty emphasizes essential needs such as nutrition, education, and housing. The committee submitted its report in June 2014, setting the rural poverty line in Punjab at Rs. 1127.48 per person per month for the year 2011-12 prices (GoI, 2014). For the present study, figures were adjusted using the consumer price index for agricultural and rural labourers for the year 2021-22. Consequently, the updated annual poverty line is Rs. 22907.28. Farmers with a per capita income or consumption expenditure below this threshold are classified as poor households.

World Bank's Moderate Poverty Line Criterion: The World Bank has suggested two methods to measure poverty among the peoples of developing countries. These global standards enable us to contextualize poverty levels within a broader framework. The World Bank's moderate poverty line criterion establishes a standard for assessing and defining poverty levels across various countries and regions. This standard is periodically updated by the World Bank. The updated moderate poverty line is set at $3.10 per day per person, at purchasing power parity (Ferreira *et al*., 2015). According to the purchasing power parity (PPP) rate of Indian Rupees to US Dollars for 2021-22, which is 1 USD = Rs. 22.88 (source: www.data.oecd.org), the annual income cut-off for the moderate poverty line is calculated as follows:

Poverty line = 3.10 x 22.88 x 365 = Rs. 25888.72.

World Bank's Extreme Poverty Line Criterion: The second concept of poverty is the extreme poverty line. In 2021, the World Bank revised the extreme poverty line to $1.9 per person, per day. The purchasing power parity of the Indian Rupee in 2021-2022 is $1= Rs. 22.88 (www.data.oecd.org).

Poverty line = 1.9 x 22.88 x 365 = Rs. 15825.00

50 per cent of State per Capita Income Criterion: The 50 per cent threshold of the state's per capita income indicates individuals living on incomes equivalent to half the average income per person of the state. Per capita income of Punjab at current prices for the year 2021-22 is Rs.161888 (GoP, 2022). After calculations the poverty line comes to Rs. 80944 per annum. All the farmers having per capita income or per capita consumption expenditure below Rs. 80944.00 has been considered as poor households.

Cut off income = PCY of state × 50%

= Rs. 161888× 50/100

= Rs. 80944 (per capita, per annum)

40 per cent of State per Capita Income Criterion: The 40 per cent threshold denotes a lower benchmark, indicating a more severe form of deprivation. Individuals living below this level face significant challenges in accessing even the most fundamental necessities, including food, shelter, and healthcare. The poverty line comes to Rs.64755 per annum. All the farmers having per capita income or per capita consumption expenditure below Rs. 64755 have been considered as poor households.

Cut off income = PCY of state × 40%

= Rs. 161888× 40/100

= Rs. 64755 (per capita, per annum)

The factors influencing the per capita income or expenditure of farmers has been analyzed and carried out by the use of multiple regression analysis. The multiple regression model used as follows:

$$Y = a + b_1 X_1 + b_2 X_2 + \ldots + b_n X_n$$

Where, Y is the dependent variable; X_1-X n are the explanatory variables; a is a constant term and b_1-b_n are the regression coefficients for X_1-X_n, respectively. The following variables are chosen for the final analysis to examine the determinants of income-based poverty:

$$Y = f(X_1, X_2, X_3, X_4, X_5)$$

Where, Y=Per capita income (Rs.), X_1=Family size, X_2=Number of earners, X_3=Expenditure on education (Rs.), X_4=Per capita income from subsidiary occupations (Rs.), X_5= Farm size.

Factors influencing per capita consumption expenditure are considered as determinants of poverty. The following variables are chosen for the final analysis.

$$Y = f(X_1, X_2, X_3, X_4, X_5)$$

Where, Y=Per capita consumption expenditure (Rs.), X_1=Number of dependents, X_2=Education level of the head of the household, X_3=Per capita expenditure on education (Rs.), X_4=Per capita income from subsidiary occupations, X_5=Per capita value of assets (Rs.).

4. Results and Discussion

4·1 Incidence of Income-based Poverty

Poverty is financial situation and level of well-being of a person when heis unable to obtain basic necessities like clothing, food, and shelter. The amount of money needed to purchase food in order to produce that number of calories is therefore known as the poverty line.Table-1 displays the proportion of farmers who have income below poverty thresholds, classified according to various ways. Under extreme poverty criterion 5.74 per cent of all sampled population face the incidence of poverty. The marginal farmers face the highest poverty incidence of 14.68 per cent, followed by the small farmers (3.09 per cent). When considering the moderate poverty criterion, 14.14 per cent of the total sampled population is living below the poverty line. The situation is worse for the marginal farmers as data shows that 33.61 per cent of the population of marginal farmers is living below the moderate poverty line. 6.18 per cent of the population of small farmers and 4.54 per cent of the population of the semi-medium farmers is living below the moderate poverty line. Moderate poverty has a greater impact on marginal farmers in comparison with other categories.

The Rangrajan and Tendulkar parameters exhibit parallel patterns, with a greater proportion of the marginal farmers being impacted in comparison to other categories. According to the Tendulkar criterion, slightly more than 9 per cent of the population of all sampled farmers is living below poverty line. Under this criterion, the marginal farmers face the highest (23.00 per cent) poverty incidence followed by the small farmers (6.18 per cent) and semi-medium farmers (0.95 per cent). According to the Rangrajan criterion, about 12 per cent of all sampled population is living below the poverty line. Under this measure, the marginal farmers experience the most severe poverty rate of 31.31 percent, followed by the small farmers and semi-medium farmers.

Table-1: Percentage of Population of Farmers Living below Income-based Poverty

Methods	Marginal Farmers	Small Farmers	Semi-Medium Farmers	Medium Farmers	Large Farmers	All Sampled Farmers
Extreme poverty	14.68	3.09	—	—	—	5.74
Moderate poverty	33.61	9.89	4.54	—	—	14.14
Tendulkar criterion	23.00	6.18	0.95	—	—	9.08
Rangrajan criterion	31.31	6.18	0.95	—	—	11.59
50 per cent of PCY criterion	80.26	62.91	40.70	20.54	—	54.99
40 per cent of PCY criterion	71.78	49.92	16.08	13.24	—	42.46

Source: Field Survey, 2021-22

Similarly, according to the criterion of 40 per cent and 50 per cent of the per capita annual income of the state, the data reflects the incidence of poverty for all the farmer categories except the large farmers. According to the outcomes, about 55 per cent of the population of all sampled farmers is living below 50 per cent of per capita income of the state. 80 per cent of the population of the marginal farmers is living on less than 50 per cent of the per capita of the state. This percentage is 62.91 for the small farmers, 40.70 for the semi-medium farmers, and 20.54 for the medium farmers. According to 40 per cent of per person annual income of state measure, 42.46 per cent of the population of all sampled farmers is living below poverty line. The marginal farmers experience the most severe poverty rate of 71.78 per cent, followed by the small farmers with 49.92 per cent, semi-medium farmers with 16.08 per cent and medium farmers with 13.24 percent.

The findings depicts that the marginal farmers are particularly vulnerable to poverty across all measures followed by the small farmers, while the semi-medium and medium farmers are relatively less affected. Large farmers remain largely unaffected across all measures. These findings highlight the urgent need for targeted interventions and policies to address rural poverty in Punjab, tailored to the specific circumstances and needs of different farm-size categories.

4·2 Consumption-based Poverty

The incidence of consumption-based poverty is also calculated. Table 2 displays the proportion of population of farmers who live below the poverty line depending on their consumption levels. The extreme poverty and Tendulkar criterion indicate that there are no farmers who have become poor among all categories of farmers. These two methodologies do not detect any farmer whose consumption levels place them below the poverty threshold. According to moderate poverty and Rangarajan criterion, only 8.25 per cent and 4.79 per cent of the population, respectively of the marginal farmers lives below the poverty line.

Table-2: Percentage of Population Living below Consumption-based Poverty

Methods	Marginal Farmers	Small Farmers	Semi-Medium Farmers	Medium Farmers	Large Farmers	All Sampled Farmers
Extreme poverty	—	—	—	—	—	—
Moderate poverty	8.25	4.13	—	—	—	3.27
Tendulkar criterion	—	—	—	—	—	—
Rangrajan criterion	4.79	—	—	—	—	1.16
50 per cent of PCY criterion	78.63	65.69	43.97	5.72	—	53.95
40 per cent of PCY criterion	73.08	39.10	9.55	—	—	36.28

Source: Field Survey, 2021-22

However, the effective application of the 50 per cent and 40 per cent of per capita income approaches exposes substantial poverty rates among all farmer categories except the large farmers. Following the 50 per cent of per capita consumption expenditure of state criterion, 53.95 per cent population of all sampled farmers is living below the poverty line, a significant proportion of the population of the marginal farmers (about 79 per cent) and small farmers (65.69 per cent) are experiencing poverty as measured by the consumption-based poverty threshold. About 44 per cent of the population of the semi medium farmers lives below the poverty line. The data reveals that medium farmers exhibit low poverty rates according to these criteria, with a mere 5.72 per cent of them falling under the 50 per cent criterion. According to the criterion of 40 percent of the per capita consumption of the state, 36.28 per cent of the population of all sampled farmers is living below the poverty line. Slightly more than 73 per cent of the population of marginal farmers and 39.10 per cent of the population of small farmers fall below this consumption-based poverty threshold. About 10 percent of the population of semi-medium farmers also experience poverty. Interestingly, the data shows that no medium and large-scale farmers meet the poverty criteria under these measures.

It stresses the significant obstacles encountered by the marginal and small farmers in fulfilling their fundamental consumption requirements. Furthermore, the extremely low poverty rates among medium and large farmers highlight a substantial inequality in the allocation of income throughout the agricultural sector. Overcoming these inequalities and guaranteeing the availability of goods and services for the smaller farmers may prove crucial for alleviating poverty. The findings align with earlier studies that emphasize the vulnerability of marginal and small farmers (Ravallion & Datt, 1996; Ghosh, 2018). The persistence of consumption poverty under relative thresholds supports Deaton and Drèze's (2009) critique of calorie-based poverty lines. additionally, through the comparison of the income and consumption-based poverty within the households of farmers has been observed that the incidence of poverty based on consumption is somewhat lower than the incidence of poverty based on income. These families are compelled to take loans from others to sustain a least standard of living.

4·3 Determinants of Income-based Poverty

An effort has been undertaken to explain the fluctuations in per capita income among farmers in the border areas of rural Punjab. The findings of a multiple regression model on the variables influencing income-based poverty among various categories of farmers are displayed in Table-3. The regression coefficient for the variable family size is indeed negative and significant at the one per cent level of significance for all categories of farmers. This means that an increase in family size is associated with a decrease in per capita income and increases the incidence of poverty among farmers. This implies that an increase in the number of family members can lead to the sharing of resources, which might end up resulting in an increase in poverty proportions. The regression coefficient for the variable number of earners is indeed positive for all farm categories, but it is not significant for the semi-medium and medium farmers. However, it is significant at the one per cent level for the small and large farmers, and at the five per cent level of significance for the marginal farmers. This implies that an increase in the number of earners can lead to an increase in per capita income, which ends up resulting in a decreased incidence of poverty.

Table-3: Factor Affecting Income-based Poverty of Farmers (Results of Multiple Regression Analysis)

Methods	Marginal Farmers	Small Farmers	Semi-Medium Farmers	Medium Farmers	Large Farmers	All Sampled Farmers
Family size	-0.23* (3.25)	-0.52* (8.05)	-6.49* (5.54)	-0.76* (4.26)	-0.76* (5.10)	-0.36* (10.13)
Number of earners	0.15** (2.15)	0.34* (5.28)	0.70^{NS} (0.65)	0.24^{NS} (1.35)	0.95* (4.07)	0.18* (4.91)
Expenditure on education	0.03^{NS} (0.54)	0.20* (3.49)	0.03^{NS} (0.47)	0.22*** (1.83)	0.00^{NS} (0.03)	0.02^{NS} (0.92)
Per capita income from subsidiary occupations	0.43* (6.79)	0.34* (5.69)	0.36* (6.03)	0.43* (4.32)	-0.07^{NS} (0.44)	0.26* (8.78)
Farm size	0.49* (8.44)	0.47* (7.92)	5.68* (10.14)	0.38* (3.64)	0.48* (3.15)	0.68* (22.91)
R^2	0.59	0.60	0.55	0.56	0.85	0.66

Source: Field Survey, 2021-22.

Note: The figures in brackets indicate t values.

* Significant at one per cent, **Significant at five per cent, *** Significant at ten per cent, NS Not significant.

The relationship between expenditure on education and per capita income for the small, medium, and large farmers is positive, as indicated by the positive coefficients. These findings indicate that allocating resources to education could potentially lead to positive financial advantages to families; however, the regression coefficients are only significant for the small and medium farmers. The presence of positive coefficients for the variable per capita income from subsidiary occupations is linked to a decrease in income-based poverty for all the categories of farmers, except for the large farmers. These findings indicate that expanding income streams beyond agriculture can be advantageous in alleviating poverty, especially for farmers with limited land and resources. It is significant at the one per cent level of probability for all the sampled farmers and all categories of farmers except the large farmers. The regression coefficient for farm size is positive, indicating that bigger farm sizes are correlated with lower levels of income-based poverty among all the categories of farmers and it is significant at the one per cent level of significance. This is consistent with the notion that large farms yield greater revenues, hence decreasing the probability of experiencing poverty. The regression model explains approximately 66 per cent of the variation in per capita income, indicating strong explanatory power.

The above analysis indicates that family size has a significant negative impact on per capita income across all farmer categories. The number of earners positively influences income, particularly among marginal and small farmers. Income from subsidiary occupations significantly reduces poverty, emphasizing the importance of livelihood diversification. Farm size emerges as a strong determinant, with larger holdings associated with higher income levels.

4·4 Determinants of Consumption-based Poverty

The following Table-4 outlines the results of a regression analysis on factors affecting consumption-based poverty among the different categories of farmers.

Table-4: Factor Affecting Consumption-based Poverty of Farmers (Results of Multiple Regression Analysis)

Methods	Marginal Farmers	Small Farmers	Semi-Medium Farmers	Medium Farmers	Large Farmers	All Sampled Farmers
Number of dependents	-0.22** (2.36)	-0.215*** (1.66)	-0.28* (2.98)	-0.13^{NS} (1.33)	-0.27^{NS} (0.75)	-0.18* (4.90)
Education level of the head	-0.01^{NS} (0.14)	-0.06^{NS} (1.10)	0.14*** (1.90)	0.16** (2.06)	0.41^{NS} (1.52)	0.04^{NS} (1.19)
Per capita expenditure on education	-0.06^{NS} (1.17)	0.05^{NS} (0.58)	0.08^{NS} (1.07)	-0.37* (4.37)	-0.62*** (1.95)	-0.05^{NS} (1.27)
Per capita income from subsidiary occupations	0.12** (2.09)	0.16** (2.19)	0.07^{NS} (0.58)	0.24* (3.51)	0.31^{NS} (1.49)	0.16** (1.97)
Per capita assets	1.01* (18.45)	0.87* (8.94)	0.87* (8.68)	1.11* (10.95)	-0.51^{NS} (1.08)	0.89* (22.37)
R^2	0.76	0.63	0.66	0.76	0.52	0.72

Source: Field Survey, 2021-22

Note: The figures in brackets indicate t values.

* Significant at one per cent, **Significant at five per cent, *** Significant at ten per cent, NS Not significant

The factor number of dependents shows a significant negative effect on consumption-based poverty for all the sampled farmers. This suggests that having dependents generally decreases per capita consumption, which increases the incidence of poverty. The regression coefficient of the education level of the head of family is positive for the semi-medium, medium and large farmers. But it is significant for the semi-medium and medium farmers at ten and five per cent levels, respectively. Per capita expenditure on education has no significant effect on consumption-based poverty for the marginal, small and semi-medium farmers, but for the medium and large farmers, this coefficient is significant. Per capita income from subsidiary occupations has a significant positive effect on consumption-based poverty for all the categories of farmers except the semi-medium and large farmers. This suggests that income from subsidiary activities tends to increase per capita consumption, which results in less poverty. The value of assets has a significant positive effect on consumption-based poverty for all the categories except the large farmers. This implies that higher assets generally reduce poverty among farmers.

Overall, the regression models seem to explain a significant portion of the variance in per capita consumption, as indicated by the relatively high R-squared values across all categories. The coefficient of multiple determination for all the sampled farmers depicts that 72 per cent variation in per capita consumption is explained by the explanatory variables.

The above analysis of data contained in Table-4 depicts that the number of dependents negatively affects per capita consumption, increasing poverty incidence. Education of the household head and asset ownership positively influence consumption levels, especially among semi-medium and medium farmers. Income from subsidiary occupations significantly enhances consumption among marginal and small farmers. . Unlike some studies that find education uniformly beneficial, this study reveals its heterogeneous impact across farm-size categories, suggesting structural constraints in translating education into income gains for marginal farmers.

5. Conclusion and Policy Implications

The study examines the incidence and determinants of poverty among farmers in the border areas of rural Punjab using both income and consumption-based approaches. It finds that poverty is highly concentrated among the marginal and small farmers, reflecting significant inequality across farm-size categories. Both Tendulkar and Rangarajan criteria exhibit similar patterns, confirming that marginal and small farmers are the most vulnerable. Relative poverty measures show significantly higher poverty incidence, with more than half of the sampled population living below 50 per cent of the state per capita income. While absolute poverty measures indicate relatively low levels of deprivation, relative poverty measures reveal substantial hidden inequality. The analysis shows that factors such as landholding size, family size, dependency ratio, education, and asset ownership play a crucial role in determining poverty. Income diversification through subsidiary occupations is found to significantly reduce vulnerability among farmers. Although basic consumption needs are largely met, many households continue to face economic insecurity. The challenges are more severe in border areas due to structural constraints and limited opportunities. The study also reflects the paradox of prosperity alongside agrarian distress in Punjab. Overall, it concludes that poverty is multidimensional and requires targeted, region-specific policy interventions.

The study highlights the need for targeted policy interventions to address poverty among marginal and small farmers in rural Punjab. Promoting non-farm employment and subsidiary income opportunities is essential to reduce dependence on agriculture. Strengthening education and skill development programs can enhance farmers' productivity and adaptability. Additionally, improving access to credit and supporting asset-building initiatives will increase financial resilience among smallholders. The study also emphasizes the importance of incorporating relative poverty measures in policy design to better capture actual deprivation. Overall, a focused and inclusive approach is required to reduce inequality and improve rural livelihoods.

References

Bhalla, S. S., and R. Kaur, "Labour Force Participation of Women in India", ***Economic and Political Weekly***, 46(35), 2011, 67-75.

Chakrabarti, S., "Relative Poverty and Inequality in India: An Assessment", Journal of Development Studies, 57(4), 2021, 567-583.

Deaton, A., and J. Drèze, "Food and Nutrition in India: Facts and Interpretations", ***Economic and Political Weekly***, 44(7), 2009, 42-65.

Ferreira, F. H. G., S. Chen, A. Dabalen, Y. Dikhanov, N. Hamadeh, D. Jolliffe, A. Narayan, E. B. Prydz, A. Revenga, P. Sangraula, U. Serajuddin, and N. Yoshida. "A Global Count of the Extreme Poor in 2012: Data Issues, Methodology and Initial Results", IZA Discussion Paper 9442, IZA Institute of Labor Economics, Bonn, Germany, 2015.

Ghosh, S., "Farm Size and Rural Poverty in India", ***Indian Journal of Agricultural Economics***, 73(3), 2018, 371-387.

Government of India, ***Report of the Expert Group to Review the Methodology for Estimation of Poverty***, Chaired by S. D. Tendulkar, New Delhi: Planning Commission, 2009.

Government of India, ***Report of the Expert Group to Review the Methodology for Measurement of Poverty***, New Delhi: Planning Commission, 2014.

Government of Punjab, ***Statistical Abstract of Punjab, 2016-17***, Chandigarh: Economic and Statistical Organisation, 2022..

Government of Punjab, ***Statistical Abstract of Punjab, 2022***, Chandigarh: Economic and Statistical Organization, 2022.

Joshi, M., and R. Rana, "Agrarian Distress in Punjab: A Socio-Economic Analysis", ***Punjab Economic Journal***, 34(2), 2020, 45-67.

Junofy, A. R. N., "A Study on Poverty and Hunger in India", ***Mediterranean Journal of Social Sciences***, 4(12), 2013, 147-152.

Kundu, A., and N. Sarangi, "Poverty and Food Security in India: Changing Patterns", ***Journal of Social and Economic Development***, 18(1-2), 2016, 35-50.

Mehta, A. K., and P. Naveen, "Determinants of Rural Poverty in India: A Household-Level Analysis", ***Margin: The Journal of Applied Economic Research***, 11(3), 2017, 311-337.

Ravallion, M., and G. Datt, "How Important to India's Poor Is the Sectoral Composition of Economic Growth?", ***World Bank Economic Review***, 10(1), 1996, 1-25.

Sen, A., ***Poverty and Famines: An Essay on Entitlement and Deprivation***, Oxford: Oxford University Press, 1981.

Tilak, J. B. G., "Education and Poverty", ***Journal of Human Development***, 6(2), 2005, 191-207.

World Bank, ***Global Monitoring Report 2015/2016: Development Goals in an Era of Demographic Change***, Washington, DC: World Bank Publications, 2015.

World Bank, ***Poverty and Shared Prosperity 2020: Reversals of Fortune***, Washington, DC: World Bank Publications, 2021.

★

Article Received on April 02, 2026; Accepted on April 15, 2026

JOURNAL OF NATIONAL DEVELOPMENT

PEER REVIEWED, INDEXED & REFEREED Bi-ANNUAL INTERNATIONAL JOURNAL

ISSN 0972-8309

https://www.jndmeerut.org

[Vol. 39, No. 1 (Summer), 2026]

https://doi.org/10.62047/JND.2026.06.30.63

Migration and Changing Intergenerational Relationships in a Western Village of Nepal

Guman Singh Khattri

Assistant Professor, Central Department of Sociology, Tribhuvan University, Kathmandu (Nepal) E-mail:<khattrigs2020@gmail.com>

Abstract

International labour migration has become one of the most important social forces reshaping rural life in Nepal, transforming not only the material conditions of households but also the intimate architecture of family relationships across generations. While a substantial body of scholarship has examined the economic dimensions of Nepalese labour migration-remittance flows, poverty reduction, and women's household autonomy-far less attention has been paid to its effects on intergenerational relationships: the bonds of authority, obligation, care, and cultural transmission that connect older and younger members of migrant families. This article addresses that gap through qualitative fieldwork conducted in Narethanti village, Baglung district, Western Nepal. Drawing on life history interviews, a household survey, and key informant interviews with 45 respondents across 30 migrant households, the study investigates why young people choose to migrate, how migration reshapes their relationship with agrarian livelihoods and birth-ascribed social status, and how sustained absence from the village widens the cultural and value system gulf between generations. The findings reveal a dual process of liberation and rupture. Migration enables young people to achieve economic independence that surpasses anything their parents had accumulated over a lifetime, and to escape the caste- and clan-based hierarchies that have historically defined social worth in the village. Yet this emancipation carries costs: prolonged exposure to caste-free labour markets abroad and to urban lifestyles erodes young migrants' commitment to traditional cultural practices and deepens their estrangement from the world their parents inhabit. Elderly parents experience this as neglect; migrant children experience it as the natural consequence of a life lived across radically different cultural worlds. The article argues that labour migration in Nepal is not merely a livelihood strategy but a profound social and cultural transformation-one that is fundamentally reordering intergenerational bonds, reshaping family structures, and generating new forms of tension around identity, belonging, and the ethics of care.

Keywords

Social security, Worker rights, NREGA, Gig Worker, Unorganized sector.

Centre For Studies of National Development, Meerut

Editorial Office : D-59, Shastri Nagar, Meerut - 250 004 (INDIA)

Ph. : 0121-2763765, +91-9997771669, +91-9412200765

5

Migration and Changing Intergenerational Relationships in a Western Village of Nepal

1. Introduction

Nepal has emerged as one of the most migration-intensive societies in Asia. Remittances now constitute a substantial proportion of the country's GDP, and the steady outflow of young men from rural villages to labour markets in the Gulf, Malaysia, Japan, and increasingly to Europe, Australia, and North America has transformed the material foundations of rural life in ways that were unimaginable a generation ago. Yet for all the economic visibility of this phenomenon, its social consequences remain comparatively understudied. Most scholarly attention has concentrated on what migration does to household incomes, to poverty levels, and to the position of women in the domestic sphere. Far less has been written about what migration does to the relationships between generations-to the bonds of authority, reciprocity, obligation, and cultural transmission that connect the old and the young within migrant families and communities. It is this neglected dimension of Nepalese migration that the present article seeks to illuminate.

In rural Nepal, intergenerational relationships have historically been organized around three interlocking pillars: an agrarian economy in which land is both a livelihood and a form of social capital; a caste system that ascribes social status at birth and governs the terms of interaction across communities; and a patriarchal family structure in which authority flows from elder to younger, and in which the care of aged parents is understood as a fundamental obligation of adult children. These pillars are mutually reinforcing. The young person who farms his father's land, observes caste protocol, and eventually inherits the household's social position is reproducing not just an economic arrangement but an entire moral order. Labour migration disrupts this order at every level simultaneously. It removes the most productive members of the community-predominantly young men in their most economically active years-and relocates them in social environments where land ownership is irrelevant, caste is invisible, and individual skill and economic performance determine worth. The cultural and psychological consequences of this relocation, when migrants return to their villages on vacation or permanently, are profound and far-reaching.

Scholars of migration and acculturation have long recognized that the movement between cultures involves not just economic adjustment but a fundamental reorientation of values, identity, and social behaviour (Berry, 2005). For Nepalese migrants, who travel predominantly as individuals rather than as family units, this process of acculturation is particularly acute. Renzaho *et al*., (2017) identify four broad orientations that migrants may adopt in relation to their home and host cultures: traditional separation, assimilation, bicultural integration, and marginalization. In the Nepalese context, evidence suggests that many migrants occupy an unstable middle ground-neither fully assimilated into the culture of their destination country nor able to simply resume their former place in the village upon return. Yamanaka (2005) captures this vividly in her description of Nepalese transmigrants in Japan experiencing “reverse culture shock” when they return home, finding themselves disoriented by the contrast between the pace and norms of urban Japan and the rhythms and obligations of rural Nepal. What has received less systematic attention is how this cultural dislocation plays out within the family-specifically, how it shapes the relationships between returning or absent migrants and the older generation they have left behind.

The structural consequences for family composition add further complexity to this picture. As Speck & Müller-Böker, (2020) observe, migration produces far-reaching changes in family life: modified living arrangements, redefined roles and statuses, redistributed domestic labour, and a marked erosion of inter-generational care and support. In Nepal, a distinctive and increasingly visible pattern has emerged in which the families of migrant workers do not simply wait in the village but gradually relocate to nearby towns and cities-wives and children moving in search of better schools and urban amenities while husbands continue to labour abroad. The result is a “triple adjustment” (Yamanaka, 2005): the migrant adapts to a foreign cultural environment, his wife and children socialize into an urban Nepali world, and elderly parents remain in the village, deprived simultaneously of the labour, the company, and the intergenerational care that a joint family would have provided. This spatial fragmentation of the family is not merely a logistical inconvenience; it reflects and accelerates a deeper transformation in the moral economy of intergenerational obligation.

2. Objectives of the Study

This article tries to investigate the dynamics in intergenerational relationships through an empirical study of Narethanti village in Baglung district, Western Nepal —a community with a multi-generational history of labour migration that makes it an especially productive site for examining the long-run social consequences of outmigration. The central research question is: How does international labour migration reshape intergenerational relationships within migrant households in rural Nepal? Following three subsidiary questions guide the analysis:

- *First*, what motivates young people to migrate, and how do those motivations reflect a broader disenchantment with agrarian life and birth-ascribed social status?
- *Second*, how does migration alter young people’s economic and social independence from their parents? and
- *Third*, how does sustained exposure to foreign cultural environments widen the value-system gulf between migrant youth and the older generation in the

village, and what tensions does this generate around identity, cultural practice, and the ethics of care?

3. Labour Migration, Family and Intergenerational Relations: A Review of Literature

The main thrust of the labour migration from Nepal is the collection of cash because it is an important sign of success in a capitalist society. Holding land and owning property is important, but so too is command over cash, and wealth is a central requirement in most styles of masculinity. It is about earning cash and reputation (Gaurav, 2014; Osella & Osella, 2000). Labour migration is not only about empowerment, economic return, changes in consumption, changes in livelihood, women's autonomy in households, and participation in the public sphere; however, these things are embedded with risks and significant socio-cultural stresses (Sinjapati, Lama, *et al*. 2017; Adhikary, Shepherd, *et al*. 2018; Bossavie and Denisova, 2018).

In the age of globalization, the reduction in costs of travel, improvement of communication systems, internationalization of capital, and economic growth have led to a substantial increase in the scale and complexity of international migration. The migrants' ways of perceiving, navigating, and managing changes within their family dynamics and intergenerational relationships can be very stressful in the post-migration phase. This occurs due to the dual process of cultural and psychological change that takes place as a result of contact between two or more cultural groups and their members. Acculturation is a process of cultural and psychological change that involves various forms of mutual accommodation, leading to some longer-term psychological and socio-cultural adaptations between the groups (Berry, 2005). Since labour migration from Nepal is predominantly by males and individuals, the acculturation process is mostly individual rather than in a group. Consequently, the role of contextual factors in individual behaviour is often mediated by interactions in different social networks to which individuals belong (Anderson, 2022: 263), with many facing difficulties establishing social networks, finding accommodation or employment, learning English, and looking after their general health. Renzaho *et al*. (2017) identify four cultural orientations related to the home culture and the host culture: (1) Traditional or separation (maintaining loyalty to traditional culture and not recognizing the host/dominant culture); (2) Assimilation (rejects traditional culture and fully embraces the host/dominant culture); (3) Integration or bicultural orientation (retaining cultural identity while simultaneously joining the dominant society); and (4) Marginalization (rejecting traditional culture and failing to connect with the host/dominant culture by exclusion or withdrawal). Nepalese migrants experience the 'reverse culture shock' of the change from the fast life and bright lights of urban Japan to the routines of Nepal and responsibilities there (Yamanaka, 2005). Notwithstanding the challenges of varying acculturation trajectories (despite many conflicts), migrant families were able to develop strategies for handling intergenerational conflicts through learning, making compromises, accepting some cultural changes, adapting to new social expectations, and recognizing that migrant children were not inherently at fault for differences in cultural value sets and behaviours, for example. These strategies helped migrants to improve their post-migration family balance (Ayika *et al*., 2018).

The family dynamics certainly are affected directly after young males leave and are absent from household chores. It changes the decision-making, child dependence, and gendered division of housework (Heidi, 2006). Given that context, migrant workers who visit foreign lands get exposure to diverse cultures, wider perspectives, and new social networks, and gain new skills and experiences that empower them, enhancing their self-confidence and decision-making capabilities. Aside from cross-border movements, internal migration, chiefly from rural to urban areas and from the hills to the plains, is also an important type of human mobility that is linked to the development of Nepal. Internal migration has played a major role in redistributing population along the Terai and the Hills and between rural and urban areas. Further, the population of youth, who are comparatively mobile, has increased in urban areas compared to the past (Ghimire & Upreti, 2012). This mobility indeed forces a person to leave the previous cultural practices and engage with new socio-cultural worldviews. The loss of social capital by migrant returnees in their community, context, time, and places may be problematic for themselves, their children, and aged people in the family in the short term. Currently, one of the most visible cases, often related to international labour migration, is internal migration, where the migrant's family (wife & children) leaves villages and begins to stay in nearby cities. This makes a 'triple adjustment' within a joint family. A husband becomes accustomed to a foreign land's culture, wife and children become socialized in nearby cities, and aged people who are left behind in the villages are forced to habituate to living alone in their location. Changes in the family include modified living arrangements, a redefinition of roles and status, a redistribution of work among family and household members, changes in the attitude of younger people towards older people, and a decline in intergenerational care and support (Speck and Müller-Böker, 2020).

4. Research Methods

The study adopts an exploratory and interpretive qualitative research design, a choice that is not merely methodological convention but a substantive epistemological commitment. Understanding how intergenerational relationships change as a result of labour migration cannot be accomplished through survey instruments alone, however well-designed. The phenomena at stake-the erosion of parental authority, the quiet withdrawal of young migrants from caste obligations, the grief of elderly parents who find their children emotionally and culturally unreachable on return, the ambivalence of migrant youth torn between obligation to family and commitment to a newly acquired worldview-are experiences that resist quantification and demand instead sustained, empathetic engagement with the people who live them. Life history and interview methods are particularly well suited to this task because they allow respondents to narrate change over time, to reflect on the meanings they attach to migration and its consequences, and to articulate the tensions they experience in their own words. The household and the community are taken as dual units of analysis, enabling the study to move fluidly between the intimate scale of family dynamics and the wider social and cultural context in which those dynamics unfold.

Fieldwork was conducted in Narethanti village, Baglung district, Western Nepal-a community whose multi-generational history of outmigration to destinations spanning India, the Gulf, Malaysia, Japan, and beyond makes it an unusually productive site for tracing the long-run social consequences of labour migration. Thirty migrant households were selected for in-depth study, and 45 respondents (25 male and 20 female) were drawn purposively to capture the caste, gender, and generational diversity of the community: Chhetri (37.78%), artisan caste groups (26.67%), Magar (20%), and Brahmin (15.55%) households were represented. Researchers prioritized returned and retired migrants, whose reflective distance from the migration experience enriched the analytical depth of their narratives, while the study also gave equal weight to the perspectives of women and elderly respondents left behind in the village-voices whose accounts of absence, changed authority, and declining intergenerational care are indispensable to any complete understanding of what migration does to families. Three methods were used in combination. A structured household survey generated the socio-economic baseline, documenting land ownership, occupational patterns, food sufficiency, and educational attainment, and revealed the demographic scale of the phenomenon: nearly half of all male household members (47.93%) were engaged in foreign labour migration, while the majority of women (51.16%) remained in the village bearing the primary burden of agricultural work. Life history interviews-conducted in an unstructured, conversational style and supplemented by telephone conversations with migrants currently abroad-formed the analytical core of the study, tracing individual trajectories of migration and return against the backdrop of shifting family relationships, changing values, and contested obligations. Key informant interviews with teachers, journalists, political leaders, and community figures provided contextual depth and historical perspective, situating individual narratives within the longer arc of social change in Narethanti.

Analysis proceeded thematically, with close attention paid to the contrast between the worldviews of older and younger respondents. Older participants consistently narrated their identities through the language of land, caste membership, collective obligation, and agrarian practice; younger migrants, by contrast, spoke the language of individual skill, economic achievement, urban aspiration, and personal freedom. These contrasting registers are not simply rhetorical differences-they reflect a genuine and deepening divergence in the values, priorities, and social orientations of two generations whose life experiences have been shaped by radically different social environments. The researcher's own membership in the Narethanti community is acknowledged as a double-edged methodological condition: it opened doors to candid narration and facilitated the kind of trust that sustained life history work requires, while also necessitating careful reflexive attention throughout analysis to ensure that familiarity did not become a source of interpretive partiality. The fieldwork was conducted in 2011, and while the specific institutional arrangements described here reflect that historical moment, the social processes they document-the generational fracture around values and care, the cultural estrangement of migrant youth, the structural isolation of elderly parents-remain fundamental features of the ongoing experience of labour migration in rural Nepal, and the findings retain their analytical relevance for understanding migration-driven social change across the region.

5. Findings: Labour Migration Family Dynamics and Changing Intergenerational Relationships

Labour migration has become one of the most transformative forces shaping social life in Narethanti. Its effects are not confined to household economics but penetrate deep into the relationships between generations - altering the distribution of authority, reshaping aspirations, eroding traditional values, and producing a young generation that is simultaneously empowered and displaced. The findings below trace these changes across five interconnected dimensions, drawing on the life histories and narratives of respondents across age groups, caste backgrounds, and migration experiences.

5·1 Intergenerational Dynamics in a Migrating Village

The village of Narethanti has changed dramatically over the past two to three decades. The spread of education, the arrival of roads, electricity, and mobile phones, and the steady outflow of young men to foreign countries have together transformed the social landscape in ways that were unimaginable to the older generation. The most visible expression of this transformation is a growing tension between two ways of life: the agrarian, collectively oriented, and caste-structured world of the elders, and the individualistic, urban-aspiring, and achievement-oriented world of the young. The present young generation holds a strong repulsion toward the former and an equally strong enthusiasm for the latter. This generational divergence, rooted in genuinely different life experiences and social horizons, forms the central thread running through all the findings reported below. What was once a practice of middle-class households—sending one son abroad to supplement the farming income—has now crossed all class boundaries, with at least one member of almost every household in the village working outside Nepal. The entire productive population is, in effect, engaged in a collective effort to alter the material and social foundations of their lives.

5·1·1 Why Young People Leave: Aspirations and Frustrations

The decision to migrate is rarely the product of a single calculation. It emerges from the accumulation of daily frustrations, observed comparisons, inherited expectations, and the slow recognition that the life available in the village falls far short of what young people believe they deserve and are capable of achieving. Two themes dominated the accounts of young respondents when explaining their motivations: a fundamental rejection of the agrarian economy as a viable or dignified livelihood, and a deep dissatisfaction with the caste-based social hierarchy that continues to govern village relationships.

⏩ Farming as Burden for Youth

Young respondents spoke about farming not with nostalgia or attachment but with a mixture of exhaustion and resignation—as something their parents did because they had no choice, not something they themselves were willing to inherit. The land, in their telling, demands everything and returns very little. Jivan Khatri, who left for Malaysia six years before the interview, described the experience of growing up in a farming household in terms that were frank and unsentimental:

> *We worked hard - all of us, every season. But even with twelve ropani of land and six people working it, the harvest was barely eighteen muri altogether. The livestock gave us milk and a few goats to sell, but we still had to buy meat. We had no irrigated land, so rice had to come from remittance. Half the year we were depending on daily wage labour just to eat. I watched that for years and thought - what is the point? I went to Malaysia. My two brothers are there now too. Our parents are still farming. We keep telling them, just stop, let it go. But they will not hear of it. For them, the land is everything. For us, it is just hard work that goes nowhere.*

The intergenerational disagreement Jivan describes—children urging parents to abandon cultivation, parents refusing—captures in miniature the broader value conflict between the generations. Narayan Kunwar's account adds a further dimension, showing how farming households that do not migrate are not merely stagnating but actively losing ground:

> *My family had irrigated land once. But there was no other income, so when debts came, the land had to go. That is how it works here—you borrow to survive, and then you lose what little you had to pay back what you borrowed. I had wanted to continue my studies but that was finished. I went to Dubai. What I saw from Dubai onwards changed how I thought about everything. The households that only farm—they are shrinking. The households that have someone abroad—they are building houses in market areas, they are putting their children in better schools. The gap between them is growing every year. The land does not lie to you. It shows you exactly where you stand.*

The logic Narayan articulates—that farming not only fails to generate prosperity but actively exposes households to dispossession—helps explain why young people in Narethanti do not view migration as a temporary supplement to agriculture but as a permanent alternative to it.

Migration as a Means for Escaping the Caste Hierarchy

If the agrarian economy represents one set of constraints that young people seek to escape through migration, the caste-based social hierarchy represents another—and for Dalit youth in particular, often a more urgent one. In interviews, the generational contrast in attitudes toward caste was stark: the oldest respondents spoke of caste identity with conviction and defended its social logic, while the youngest treated it with indifference or open contempt. Young respondents across caste backgrounds reported that they had come to view birth-ascribed status as an obstacle rather than a foundation—something that limited rather than enabled their life chances. Among Dalit respondents, this sentiment was sharpest. Khadka BK described how, as a child, he had watched a relative's economic success transform his social standing in the village, planting in him an early understanding that money could do what caste could not:

> *My uncle had served in the Indian army and came back with some money. He bought irrigated land. He built a beautiful house. People treated him completely differently from how they treated us. Non-Dalit people who would not normally sit with us - they sat with him. They ate with him, drank with him, and went to the same parties. He was the same caste as us, but they could not treat him the way they treated us because he had money and property. I used to watch that as a boy and think - that is what I want. I want people to behave with me the way they behave with him. That is why I went to Saudi Arabia after my lower secondary. I just wanted to be free of all of it.*

What Khadka's account reveals is that for Dalit youth, migration is not simply an economic decision but a social one—a strategy for escaping a relational order that assigns permanent inferiority on the basis of birth. The aspiration is not merely to earn more but to become someone whose worth cannot be dismissed on caste grounds. This desire for social dignity alongside economic improvement gives migration a particular urgency for Dalit young people that goes beyond the calculations of livelihood alone. More broadly, the dissatisfaction with both subsistence agriculture and birth-ascribed status has combined across caste lines to drive the productive population of Narethanti outward. But why specifically foreign migration rather than domestic alternatives? Respondents were clear: domestic employment is scarce, poorly paid, and uncertain. Sher Bahadur Pun placed his own decision to migrate within a three-generation history of outward movement that had become, in his family and across the village, simply the normal thing that men do:

> *My grandfather went to Assam. My father tried to join the Indian army - he did not make it, so he went to Delhi and worked in a hotel for twenty-three years. I have been in Qatar for three years now, in a manufacturing industry. Almost every household here has someone abroad. It is not strange anymore—it is just what happens. There is a saying here: a son goes abroad and a daughter goes to her husband's house. That is just the way it is. There is no work here*

> *worth having. If you are lucky enough to find something, it pays so little you can barely keep yourself alive on it. We need to earn seriously, and that means going abroad. Here, you survive. There, you can actually build something.*

Sher Bahadur's account captures something important: migration in Narethanti is no longer experienced as a rupture from the normal course of life but as its continuation. It is the expected path, normalized across generations, structurally compelled by the absence of domestic alternatives, and culturally sanctioned by community norms of masculine responsibility.

5·1·2 Shifting Power, Shifting Values in Family

The effects of labour migration on intergenerational relationships are wide-ranging and operate simultaneously at the economic, social, cultural, and structural levels. The findings in this section document five distinct but interrelated dimensions of change: the economic empowerment of young migrants relative to their parents; the cultivation of urban aspirations that diverge sharply from the old generation's attachment to village life; the erosion of parental social status as the basis of individual identity; the disconnection of migrant youth from traditional cultural practices; and the emergence of a transitional family form that fits neither the joint household of the past nor the nuclear household of the urban present.

- **Economic Power and the Reversal of Household Authority**

One of the most significant and structurally consequential effects of labour migration is the shift in economic power from the older to the younger generation within the household. Foreign employment—particularly in Japan, the Gulf, Europe, and Australia—generates incomes that in many cases exceed what the older generation earned over an entire working lifetime of farming and local labour. This economic transformation has direct consequences for the distribution of authority within the household: young men who return with savings, who purchase land and build houses, who send regular remittances that sustain the entire family, are no longer treated as junior members subordinate to parental authority. They become the effective heads of household decision-making, regardless of whether their fathers formally hold that title. In this study, four out of the seven youngest respondents had already doubled their households' landholdings and accumulated significant cash savings by their early thirties. These young men described being treated as executive members of their households, with no significant decision made without their agreement. Milan Khatri's account traces this transformation from its difficult beginnings through to its resolution in a complete reversal of household authority:

> *I was a big strong boy - people used to say I was like a wrestler. But after grade eight, I spent years trying to get into the British or Indian army and never made it. My father spent borrowed money trying to help me, and it came to nothing. For two years I did nothing. I was just there, sitting around, not earning anything, and not doing anything useful. My parents ignored me. My*

older brother ignored me. I felt like a burden. Then my brother managed to go to Japan through a contact at a hotel in Delhi. He told me to come to Delhi and learn cooking at the same place. I did that for two years, and then he sent me a visa. I went to Japan. Three years there, and when I came back I was a different person. I bought land in Chitwan. We built a house. Now one brother is in Japan, one is in London. My father - he still calls himself the head of the house. And for small things, yes, he decides. But for anything important - buying land, a major expense, anything like that - he asks us. If we say no, he stops. He would never go against us on something serious. It is not that we disrespect him. We sit together, we discuss. But the final word is with us.

Milan's narrative illustrates how completely the axis of household authority can shift within a single generation, driven not by any formal change in family rules but by the simple fact of who controls the money.

⏩ The Village They No Longer Want to Return To

Economic empowerment through migration does not merely improve the material conditions of migrant households within the village—it redirects the geographic and cultural imagination of the young generation away from the village altogether. Young respondents were emphatic that their goal is not to strengthen their position in Narethanti but to leave it, at least in terms of permanent residence. The village features in their plans primarily as a place where elderly parents are supported financially, not as the destination of their own futures. Their aspirations are urban: a modern house in the Tarai or a nearby market town, a vehicle, connectivity, and a lifestyle that approximates what they have observed in their destination countries. Yam Karki described the progression of his ambitions with characteristic directness:

I grew up watching my uncle's household. He had been abroad, he had a modern house, solar panels, a television. My father had none of that - just farming and debt. When I got on the plane to Qatar, I had one plan: earn money, clear the debt, build a house in Hatiya Bazar. That was it. But while I was in Qatar, my brother-in-law helped me move to Japan. The salary there was on another level entirely. Japan changed everything. The way Japanese people live - almost everyone has a car, a real house, their own business or stable work. They are not just surviving, they are actually living. I want that. Not in Japan necessarily, but that kind of life. So I bought land in Bhairahawa. Built a house. It is rented out now while I work. Eventually I want to live there properly. The village —I will look after my parents, send money, visit. But I am not going back to farm.

This account stands in sharp contrast to the perspective of the old generation, which understood foreign earnings as a means of reinvesting in the village itself. Bhim Pun recalled that when his generation migrated, the money came back to buy land in the village, to strengthen the household's agricultural foundation. He told the story of a porter whose son became a doctor as a parable - intended as a gentle rebuke to the young generation's desire to forget where they came from. For Bhim Pun and others of his generation, the farm is not just an occupation; it is the social medium through which relationships are maintained, through which one is known and respected in the community. Milan, an elderly farmer, spoke about his attachment to his land in a way that made clear he was not talking about economics at all:

> *I have farmed since I was a child. My father died young. I was the oldest, so I stayed - I could not go abroad. Nine people in this house depended on what I grew. I never thought of farming as just a job. When I have land, people come to work with me. My daughters-in-law go to return labour to neighbors. People come to borrow my oxen, to buy ghee, to ask about the harvest. That is a life - that is connection that is who I am in this village. If I have no farm and no livestock, what do I do with myself? Just sit? My sons say - stop farming, you are old, just rest. They do not understand. I have given my whole life to this land. When I walk to the field I feel something. I cannot explain it to them. They have never felt it. They just see hard work and low returns. I see my whole life there.*

The divergence between Milan's sentimental and relational attachment to the land and his sons' purely instrumental view of it represents one of the deepest and most emotionally charged expressions of intergenerational conflict in this study.

⏩ Foreign Experience Dissolves Inherited Social Identity

Migration does not only change what young people earn— it changes how they understand themselves and their place in the social order. In the village, an individual's social status is substantially determined by parental caste, clan, and class position - inherited attributes that precede any personal achievement and that continue to shape how others treat them regardless of individual conduct. In foreign countries, none of these attributes carry any weight. What matters is skill, performance, and the capacity to do the job. This daily experience of a meritocratic social order has a profound effect on the identities of young migrants, motivating them to question and ultimately reject the validity of birth-ascribed status upon returning home, and to raise the same questions within their communities. As Jivan Khatri put it plainly: your father's name gets you respect in the village, but it will not get you a job in Dubai. Yam Pun described what this realization looked like in practice during his time working in Thailand:

> *There were workers from dozens of countries where I was. Nepal, India, Bangladesh, Myanmar, all over. Nobody knew anybody's caste. Nobody cared. It was not that people were being polite about it - it just genuinely did not exist there as a category. What mattered was whether you could do the work, whether you showed up, whether you were reliable. A man who performed well got a better position and better pay. That was it. I used to think about the village and how differently everything worked there—who your family is, what your caste is, what your grandfather did. All of that means*

nothing there. And after a while, you start to think: why should it mean anything here either? When I came back, I could not take the caste stuff seriously anymore. I had spent years in a world where it simply did not exist.

The contrast Yam Pun draws between the two social orders is not merely observational—it is generative. The experience of living in a caste-free environment does not just change individual attitudes; it weakens the entire intergenerational mechanism through which caste identity is transmitted. The older generation's social capital—their accumulated local prestige, their caste standing, their place in the community's moral hierarchy—loses its value as an inheritance because the young generation no longer needs it and no longer believes in it.

⏩ Cultural Disconnection and the Transmission Gap

Alongside the economic and social effects of migration, there is a quieter but equally significant cultural dimension: the progressive disconnection of migrant youth from the ritual, ceremonial, and value systems that constitute the cultural life of the village. This disconnection is not deliberate or ideological in most cases - it is the product of absence. When you are not there for Shradha, you do not learn how to perform it. When you spend your holidays celebrating New Year in a foreign city, the rhythm of the Hindu calendar fades from memory. Over years and decades, the village becomes something that exists primarily in recollection rather than in daily practice. Yam Pun described this process with unusual candor and self-awareness:

My family is in the village. My property is there. In my head, the village is always there. But the reality is that I am away almost all the time. I come back for three or four months every two or three years. That is it. When I am abroad, I am a worker. That is my whole identity there. Caste means nothing, clan means nothing. What matters is the job. In the early years, I used to feel it - the homesickness, the guilt about being away. But the work takes over. You get used to it. After years of this, I notice things when I come back. I eat with Dalit friends without thinking twice - I have been doing it for years abroad. My parents do not like it. They do not say much, but I can see it bothers them. And the rituals—Shradha, Aushi, Purnima—I honestly do not know how to perform them properly anymore. Nobody taught me and I was never there to observe. But I know when my Japanese colleagues' birthdays are. I celebrate New Year with them, Valentine's Day. Those are the rhythms I live by now.

The older generation experiences this cultural disconnection as abandonment —as evidence that the young have turned their backs not merely on farming but on the entire moral and relational world that the elders built and inhabited. Nar Bahadur Khatri gave voice to this sense of loss and grievance with an honesty that was painful to hear:

My children do not think about us. They think about their careers, their money, their futures. Fine - earn money that is good. But while you earn, you also

> *have to remember us. You have to look after us. They do not care about their caste or their ancestors. They do not care about the property we built through our whole lives. And now even their wives are gone - living in the city, saying it is for the children's schooling. There are schools here. Good schools, both government and private. The real reason is that they do not want the hardship of village life. So my sons are in Qatar and Japan, their wives are in Kathmandu and Chitwan, and we are here. Alone.*

Yam Pun pushed back strongly against this characterization when it was put to him, insisting that the young generation's sacrifice is precisely what the old generation misreads as indifference:

> *People say we are selfish. That we only care about ourselves. But think about what we actually do. We leave our families. We leave our villages. We go to countries where we do not speak the language, where we know nobody, where we are at the bottom of everything. We do hard physical work for years. We send most of what we earn home. We miss our children growing up. We miss our parents getting old. We do all of this so that our families can live better. How is that selfish? The money we send—it builds houses, it pays school fees, it buys medicine. It is not just for me. It is for all of them. They do not see the sacrifice because they are not there for it.*

This contested terrain—between the older generation's experience of neglect and the younger generation's self-understanding as selfless providers—captures the emotional and moral complexity at the heart of the intergenerational conflict that migration produces.

Neither Here Nor There: A Generation Caught Between Worlds

The cumulative effect of all these changes—economic independence from parents, urban aspirations, cultural disconnection, and the erosion of caste identity—is a young generation that occupies a genuinely transitional position: no longer fully integrated into village life, not yet fully belonging to urban or transnational society either. Their ties to the village persist in the form of financial obligation and intermittent visits but have lost the density of daily social participation. Their relationships in urban Nepal remain relatively shallow. They are, in the fullest sense, between worlds.

This transitional condition is expressed not only in the attitudes and identities of young people but in the very structure of the household itself. The older generation separated households formally - a son would take his share of the parental property, establish his own hearth, and become the recognized head of a new unit. The present generation does neither. Migrants' wives and children drift toward towns and cities, drawn by schools, services, and the desire to escape village hardship, without formally claiming a share of the ancestral property. Elderly parents remain in the village home, financially supported by remittances but physically alone. The household exists on paper as a joint unit while functioning in practice as a dispersed network of financially connected but residentially separated individuals. The situation of Til Bahadur Khatri's household makes this concrete. His family nominally comprises sixteen members: two elderly grandparents, four sons, one daughter, three daughters-in-law, and five grandchildren. The reality on the ground is very different:

> *Two of my sons are in Qatar, one is in Japan. The oldest daughter-in-law is living in Hatiya with three children. The middle one is in Chitwan with two children—they have their own house there now. My youngest son and my daughter are in Baglung for their studies. Here in the village, it is me, my wife, and one daughter-in-law. That is all. Sixteen people in the family and three of us are actually here. The sons send money—to their wives in the cities and to us here. They are good about that, I will not say otherwise. But it is quiet. Too quiet. This is not how a household is supposed to work.*

What Til Bahadur describes is not merely a logistical arrangement but a social rupture. The household as a place of shared daily life—of meals together, of labour exchanged, of elders and grandchildren under the same roof—has been replaced by a financial circuit in which money flows across distances but people do not occupy the same space. This dispersed household form, increasingly common across Narethanti, represents one of the most structurally significant consequences of labour migration for intergenerational life in rural Nepal. In conclusion, labour migration in Narethanti has produced a young generation that is economically empowered, socially mobile, culturally hybrid, and structurally displaced. It has enabled them to challenge and in many cases escape the twin constraints of subsistence agriculture and birth-ascribed status that defined their parents' lives. But it has done so at a considerable social cost: the weakening of intergenerational bonds, the erosion of cultural transmission, the isolation of the elderly, and the emergence of a family form that sustains its members financially while struggling to sustain them relationally. The spirit of individualism that migration cultivates is not simply a personal orientation—it is a structural force that is progressively dissolving the collective identity that has historically held village life together.

6. Discussion

The findings presented in this article invite reflection on a paradox that lies at the heart of labour migration in rural Nepal: migration simultaneously strengthens and severs the family. It strengthens it materially-remittances fund houses, educate children, retire debts, and purchase land-while severing it culturally and morally, loosening the bonds of obligation, shared practice, and mutual recognition that have historically constituted intergenerational life in the village. Understanding this paradox requires moving beyond the economic frameworks that have dominated migration scholarship and engaging seriously with migration as a sociological phenomenon: a process that reorganizes social structures, transforms value systems, and produces new forms of inequality and solidarity within families and communities.

What the life histories gathered in Narethanti reveal, above all, is that labour migration is being experienced and understood by young people not merely as an economic strategy but as a project of social emancipation. For young men from Dalit and low-income households in particular, foreign labour migration represents the most viable pathway out of the twin constraints of subsistence agriculture and birth-ascribed social status-two systems that have historically defined not only what a person does but who they are. In destination countries where caste is invisible and individual skill determines economic reward, these young men discover a social world that validates the self they wish to become rather than the one their village has assigned them. This finding resonates strongly with (Osella & Osella, 2000) argument that migration in South Asia is deeply intertwined with masculinity and the aspiration to command cash and social recognition, and with (Gaurav, 2014) analysis of the cultural imaginaries of migration in Nepal, in which the act of going abroad is itself a performance of ambition, capability, and modernity. Migration, in this reading, is not a response to poverty alone; it is a bid for a different kind of social personhood.

Yet this bid for emancipation generates its own social costs, and these costs are distributed unequally across generations. The older generation-those who built their identities around land, agrarian labour, caste protocol, and the joint family-experiences the cultural withdrawal of migrant youth as a form of abandonment. The complaints recorded in the interviews are not simply expressions of personal hurt; they articulate a deeper sociological anxiety about the collapse of the intergenerational compact: the expectation that adult children will labour on the family land, observe ritual obligations, care for aged parents, and reproduce the household's social standing in the community. When young men return from Japan or Qatar eating with Dalits, dismissing caste protocols, investing their earnings in urban apartments rather than village land, and delegating farm decisions to elderly parents whom they barely consult, they are not merely behaving differently-they are withdrawing from the moral economy through which intergenerational relationships have been organized. This aligns with Speck and Müller-Böker's (2020) observation that population aging in rural Nepal is compounding the isolation of elderly people as younger family members migrate, and points toward an emerging crisis of care that deserves greater attention in both policy and scholarship.

The concept of acculturation, as developed by (Berry, 2005) and applied to intergenerational migration contexts by (Renzaho *et al*., 2017), is useful for naming the process through which these value-system divergences emerge, but it does not fully capture their sociological weight. Acculturation theory tends to frame cultural change as an individual psychological process of adaptation and adjustment. What the Narethanti data suggest, however, is that the cultural changes wrought by migration are not simply internal to the individual migrant; they are relational and structural. When a young man returns from abroad unable or unwilling to perform the ritual practices his parents expect of him, the rupture is not merely psychological-it is a rupture in the social fabric of the household and community. The transmission of norms, values, and practices from one generation to the next-the very mechanism through which social reproduction occurs-is being interrupted. This is not merely a story of individual cultural disorientation; it is a story of structural social change in which the institutions that have historically organized rural Nepali society-the agrarian household, the caste system, the joint family-are being hollowed out from within by the very people they depend on for their reproduction. The emergence of what respondents describe as a "young generation in transition"-neither fully belonging to the village nor fully at home in the city-captures this in-between condition sociologically: a liminal generation that inhabits multiple social worlds without being fully anchored in any of them.

7. Summary and Conclusion

This article has examined how international labour migration reshapes intergenerational relationships in rural Nepal through an in-depth qualitative study of Narethanti village in Baglung district. The central argument is that labour migration is not simply a livelihood strategy or an economic phenomenon but a profound social and cultural transformation that is fundamentally reorganizing the bonds, obligations, and value systems through which older and younger generations relate to one another. Drawing on life history interviews, a household survey, and key informant interviews with 45 respondents from 30 migrant households, the study has traced this transformation across four interconnected dimensions: the motivations driving young people to migrate; their growing economic independence from parental resources; their increasing social independence from caste- and clan-based hierarchies; and the deepening cultural disconnection between migrant youth and the older generation left behind in the village.

The study finds that young people's decision to migrate is shaped not only by economic calculation but by a broader social disenchantment-a rejection of subsistence farming as an inadequate and undignified mode of life, and a dissatisfaction with the caste-based hierarchies that have historically determined social worth and opportunity in the village. Migration offers an escape from both, and in doing so, it reconfigures the intergenerational order that those systems have sustained. Young migrants return-or remain abroad-having accumulated economic resources that exceed their parents' lifetime earnings, having absorbed values of individual merit and urban aspiration that sit uneasily alongside the collective obligations of agrarian village life, and having lost, gradually and sometimes irreversibly, their familiarity with the ritual, ceremonial, and social practices through which the older generation understands identity, belonging, and duty. The result is a widening gulf-not merely generational in the ordinary sense, but civilizational in its depth-between people who inhabit the same household but have been formed by radically different social worlds.

Three broader conclusions follow from these findings. *First*, labour migration in Nepal must be understood as a mechanism of social structural change, not merely economic adjustment. It is reshaping the caste system, dissolving the agrarian basis of social identity, and undermining the joint family as an institution of care and social reproduction-changes that are likely to be irreversible and that will redefine rural Nepali society for generations. *Second*, the intergenerational dimension of migration is a critical and underexplored axis of social inequality. *Third*, the costs of migration are not shared evenly: elderly parents, in particular, bear the burden of spatial isolation, declining care, and the loss of cultural continuity that migration produces, while the young migrants who generate these disruptions often do so with the sincere belief that they are acting for the benefit of their families.

The tension between these two perspectives-neither of which is simply wrong-is one of the defining moral dilemmas of contemporary rural Nepal. Third, the condition of the "young generation in transition" documented in this study—caught between village and city, between tradition and modernity, belonging fully to neither world-suggests that migration produces not only economic remittances but what might be called cultural remittances: new values, aspirations, and social orientations that flow back from destination countries and transform the moral landscape of origin communities in ways that are difficult to predict or manage.

This article has focused on a single village studied in 2011, and its findings should be read in that context. Narethanti is not demographically unique among rural Nepali communities, but generalizations beyond the Western Hills region should be made with care. Future research would benefit from longitudinal designs capable of tracking the evolution of intergenerational relationships across multiple migration cycles, and from comparative studies across different ecological zones, caste compositions, and migration destinations. There is also a need for more scholarship on the perspectives of the elderly in migration-affected communities-voices that remain systematically marginal in a literature still largely organized around the migrant as protagonist. What is clear, however, is that the full social cost of Nepal's labour migration regime cannot be measured in remittance flows alone. It must be measured, too, in the changing quality of relationships across generations-in the loneliness of parents whose children have moved to Bhairahawa or Doha, in the ritual knowledge that is no longer passed down, and in the slow dissolution of a moral world that took centuries to build.

References

Adhikary, P., Sheppard, Z., Keen S., van Teijlingen E., "Health and well-being of Nepalese migrant workers abroad", I***nternational Journal of Migration, Health & Social Care***, 14(3), 2018. Assessed on 31 August 2023 from Submitted manuscript IJMHSC 2018.pdf (bournemouth.ac.uk)

Andersson, G., "Family behavior of migrants", Norbert F. Schneider and Michaela Kreyenfeld (eds.), ***Research Handbook on the Sociology of the Family***, Cheltenham, UK: Edward Elgar Publishing, 2021. Assessed on September 9 2023 from FULLTEXT01.pdf (diva-portal.org)

Ayika, D., Dune, T., Firdaus, R., & Mapedzahama, V., "A Qualitative Exploration of Post-migration Family Dynamics and Intergenerational Relationships", ***Sage Open***, 8(4), 2018. Assessed on 3 September 2023 from A Qualitative Exploration of Post-Migration Family Dynamics and Intergenerational Relationships (sagepub.com)

Berry, J. W., "Acculturation: Living successfully in two cultures", ***International Journal of Intercultural Relations***, 29, 2005, 697-712. Assessed on 3 September 2023 from Berry-libre.pdf (d1wqtxts1xzle7.cloudfront.net)

Bossavie, L. and Denisova, A., **Youth Labor Migration in Nepal**, Washington, D.C.: World Bank Group, 2018. Assessed on 31 August 2023 from World Bank Document (nepalindata.com)

Ghimire, A, & Upreti BR., "Migration, Mobility and Development: Enhancing Our Understanding in Nepal", SAs RCO Discussion Paper 6, Kathmandu: South Asia Regional Coordination Office of National Centre of Competence in Research, 2012. Assessed on 3 September 2023 from c0eb0fa600bbeca642fc91ef1ebd8a69.pdf (nccr.org.np).

K.C. Gaurav, "KAMAUNE: The Cultural and Economic Imaginaries of Migration", Research Paper V, Kathmandu: Centre for the Study of Labour and Mobility, 2014. Assessed on 31 August 31, 2023 from Research Paper V_KAMAUNE_CESLAM.pdf

Kaspar, H., ***I am the Household Head Now: The Impacts of Outmigration for Labour on Gender Hierarchies in Nepal***, Kathmandu: Nepal Institute of Development Studies (NIDS), 2005, 285. Assessed on September 3, 2023 from Vorspann.qxd (unibe.ch)

Osella, F. and Osella, C., "Migration, Money and Masculinity in Kerala", ***The Journal of the Royal Anthropological Institute***, 6(1),2000, 117-33.

Renzaho AMN, Dhingra N, Georgeou, N., "Youth as contested sites of culture: The intergenerational acculturation gap amongst new migrant communities-Parental and young adult perspectives", ***PLoS ONE***, 12(2), 2017, e0170700. Youth as contested sites of culture: The intergenerational acculturation gap amongst new migrant communities-Parental and young adult perspectives | PLOS ONE

Speck, S. and Müller-Böker, U., "Population ageing and family change: older people's perceptions of current changes in family composition in rural Nepal", ***European Bulletin of Himalayan Research***, 55, 2020, 7-37. Assessed on 3 September 2023 from Population ageing and family change: older people's perceptions of current changes in family composition in rural Nepal (openedition.org).

Yamanaka, K., "Changing family structures of Nepalese transmigrants in Japan: split-households and dual-wage earners", ***Global Networks***, 5(4), 2005, 337-358. Changing family structures of Nepalese transmigrants in Japan: split-households and dual-wage earners (keikoyamanaka.info) ★

Article Received on March 24, 2026; Accepted on April 15, 2026

JOURNAL OF NATIONAL DEVELOPMENT

PEER REVIEWED, INDEXED & REFEREED Bi-ANNUAL INTERNATIONAL JOURNAL

ISSN 0972-8309

https://www.jndmeerut.org

[Vol. 39, No. 1 (Summer), 2026]

https://doi.org/10.62047/JND.2026.06.30.82

A Sociological Analysis of Urbanization, Climate Change and Sustainability Challenges in Mumbai

Balaji Kendre[1] & *Faiza Sultana Shaikh*[2]

[1]Professor, Department of Sociology, University of Mumbai, Mumbai, Maharashtra (India) E-mail:<balaji.kendre@sociology.mu.ac.in>

[2]Research Scholar, Department of Sociology, University of Mumbai, Mumbai, Maharashtra (India)

Abstract

India's identity as a land of agriculture, farmers, and rural people is undergoing a radical transformation due to rapid urbanization. The rate of urbanization after Liberalization has increased rapidly, and cities are becoming more connected to globalization through trade, services, and technology. The nature of urbanization is changing, and the traditional understanding of urban areas is better than that of rural and tribal areas, which need introspection. However, certain urban areas are highly urbanized, centers of global business, and livelihood centers for people from different backgrounds. Urbanization and civilization are important developments in human history. These processes have brought progressive changes to human life and culture over time. Urban areas are always associated with changes in occupational patterns and in the quality of life, which are a source of developed human resources. Mumbai, as a metropolitan city known as India's economic capital, has a new identity on the world stage. It has become a new destination for businesses and commercial activities because of its location and public infrastructure. Mumbai has become a corporate hub for both the public and private sectors. The changing global economic landscape and environment have created risks in the process of urbanization, which may affect people and the environment in the future. An attempt is being made to understand the rapid urbanization, its impacts, and the risks of climate change arising from uncontrolled development in Mumbai city.

Keywords

Urbanization, Climate Change, Social Risk, Mumbai, Risk Society, Sustainable Development Goals (SDG 13), Urban Inequality.

Centre For Studies of National Development, Meerut

Editorial Office : D-59, Shastri Nagar, Meerut - 250 004 (INDIA)

Ph. : 0121-2763765, +91-9997771669, +91-9412200765

6

A Sociological Analysis of Urbanization, Climate Change and Sustainability Challenges in Mumbai

1. Introduction

The ideas of development, economic growth, and changing demographic patterns are closely linked to the emerging phenomenon of urbanization. Urbanization is often understood as a process that emphasizes the expansion of infrastructure and technological advancements aimed at improving human convenience and economic productivity. In this process, anthropogenic activities are prioritized, while other elements of the ecological landscape are often treated as secondary or less significant. However, this raises important questions: Is urbanization solely about human progress, or should it also consider the existence of other species and ecological systems that share the planet? The continuous modification of the environment to facilitate urban living has significantly transformed natural ecosystems. These transformations not only affect biodiversity but also increase social and environmental vulnerabilities. Even seemingly minor changes in the urban landscape can produce multiple consequences that extend beyond human populations, generating new forms of social risk. In this context, the present research seeks to examine how processes of urbanization contribute to the production of risk within society, particularly in relation to the growing global climate crisis. Climate change has intensified environmental uncertainties and has created multiple social risks, disproportionately affecting urban populations and ecological systems.

To better understand the climate change challenges facing Mumbai, it is important to examine its geographical setting in greater detail. Mumbai is a major urban hub in India and ranks among the largest and most densely populated cities in the world. It is situated along the western coast of the state of Maharashtra, adjoining the Arabian Sea. Geographically, the city occupies a narrow peninsula on the southwestern part of Salsette Island, bordered by the Arabian Sea to the west, Thane Creek to the east, and Vasai Creek to the north. However, a historical perspective on Mumbai's development reveals significant transformations in its physical landscape over time. Continuous urban planning and expansion, despite shifting environmental conditions, have propelled Mumbai into becoming one of India's leading and fastest-growing cities. At the same time, this relentless growth has contributed to a range of emerging challenges that the city now faces.

Mumbai's development timeline can be understood by examining the transition from a colonial port city to a global financial metropolis, shaped by successive phases of infrastructural and socio-economic transformation. Since we headed from the past, there has been a huge role in terms of changes that we measure, largely driven by the colonial powers beginning of the land reclamation projects, building of the port, rise in the textile industries, leading to a large number of rural-urban migrations, and the coming up of the railways from 1853, spreading the major characteristics of urban living. Later on, after the colonial powers, the growth of Mumbai city didn't come to a halt, but it has undergone an intensive infrastructure boom in terms of the expansion of rails and roads, the increase of transportation, enhancing the connectivity, and moving towards easier and faster ways to build in the economy.

There are an endless number of projects that have helped make the city faster-paced, where we not only experience the expansion of the rails but also the coming of the metro and monorail. The Mumbai Trans Harbour Link project, coastal road development, and Navi Mumbai International Airport-what do all these projects highlight? It's none other than all aimed at enhancing connectivity and positioning the city within the global economy. These development and redevelop- ment projects align with Saskia Sassen's concept of the "Global City", where she put across how globalization reshapes urban life by as Mumbai exhibits features of global cities, which are increasing in financial hubs, infrastructure expansion, and integration into global markets, and simultaneously the urban life is also producing new forms of inequality, labor segmentation, and spatial restructuring.

Although Mumbai overall recorded average PM2.5 concentrations below the national safety threshold, several localized hotspots—including Deonar, Sion, Kandivali East, and Bandra Kurla Complex—exceeded permissible limits. This underscores the importance of implementing and strictly enforcing targeted, hotspot-specific interventions to effectively curb PM2.5 pollution, as emphasized in a recent national air quality report. Among coastal monitoring sites, Deonar emerges as one of the most severely polluted locations. In addition, areas such as Sion, Kandivali East, Bandra Kurla Complex, Borivali East, Worli, Mazgaon, Shivaji Nagar, Sewri, and Kurla have also reported PM2.5 concentrations at or above the National Ambient Air Quality Standards (NAAQS) threshold of 40 $\mu g/m^3$, as noted in a report published by The Times of India on July 17, 2025. There are new emerging risks that are getting developed by each passing day in the city, which is moving ahead in terms of development and fulfilling all the advanced infrastructure for the people but at the same time also forgetting the consequences that the people have to pay till the coming generation, which would be a huge cost.

Another *Times of India* report dated March 26, 2026, notes that former Supreme Court judge Justice Abhay Oka described the proposed clearing of 45,000 mangroves for the Versova–Bhayander coastal road as "staggering." He suggested that an independent evaluation of the project might have minimized ecological harm and argued that courts could have mandated more rigorous, impartial scrutiny before approving such extensive environmental diversion. Environmentalists further cautioned that global concerns over rising sea levels are being insufficiently addressed, even as local authorities acknowledge the submergence risks faced by several parts of Mumbai. They also invoked the devastating floods of July 26, 2005, as a stark reminder of the city's vulnerability, noting that the lessons from that disaster have only been partially acted upon. Additionally, concerns were raised about earlier planning decisions, including the establishment of the Bandra-Kurla Complex on reclaimed land once rich in mangroves.

Besides the above issues, it must be emphasized that the nature of urbanization has changed radically worldwide since the Industrial Revolution in Europe. Industry and urban areas are interlinked, but traditional industries are no longer a lucrative option for the urban population because of their adverse impact on human life. Traditional industries depend on conventional energy sources and generate substantial waste in the production of final products. So the relationship between industry and urban development is contested. As a result, industrial areas are shifting from city centers to the peripheries (suburbs). However, Mumbai has become a new destination for businesses and activities because of its location and public infrastructure. Mumbai has become a corporate hub for both the public and private sectors, with Bandra Kurla Complex as a prime example. Real estate and the service industry are booming in Mumbai; Bollywood is one of the attractions, and it is now an industry. Mumbai has Asia's largest urban slum, Dharavi, which is rapidly transforming. Finally, it is expected that the quality of metropolitan life has to be at the highest level. The quality of life and life expectancy are also important goals of human development under the Sustainable Development Goals (SDGs). This paper critically examines the role of uncontrolled urbanization in identifying the social risks emerging day by day, and one of the major issues today is the risk of climate change. Urbanization is driven by rapid economic growth and continuous infrastructure expansion, which is transforming the socio-ecological landscape of contemporary cities. Since urbanization, with a continuously changing landscape, has enhanced connectivity and development, this progress is giving rise to new forms of man-made environmental change that are not natural, thereby increasing disasters, social risks, inequality, and life degradation.

This study examines the interrelationships among urbanization, climate change, and social risks in the context of Mumbai, India's most densely populated and rapidly developing metropolitan city. This paper will analyze how the increase in anthropogenic activities and the constant changing of landscapes and the environment have intensified climate vulnerabilities, including flooding, air pollution, and rising sea levels. Further, the sociological perspectives of Ulrich Beck's Risk Society and other development theories will highlight how modernization and capitalism-driven urban growth contribute to the unequal distribution of environmental risks. It further examines the role of Sustainable Development Goal 13 (Climate Action) in addressing urban climate challenges and evaluates existing policy measures and planning strategies. The findings emphasize the need for inclusive, sustainable, and resilient urban governance that integrates environmental concerns with social equity.

2. Research Objectives

The main objectives of this study are four-fold:

1. To examine the relationship between rapid urbanization and climate change in Mumbai.
2. To analyze how climate change exacerbates urban vulnerabilities and livelihood risks.
3. To assess the relevance of Sustainable Development Goal 13 in addressing climate challenges.
4. To explore policy measures and urban development strategies for climate resilience.

3. Research Methodology

This study adopts a qualitative analytical research design based on secondary data sources to examine the relationship between urbanization, climate change, and social risks in Mumbai. Data are drawn from a range of sources, including research articles, government and environmental reports, policy documents, newspaper articles, and documented case studies. Academic literature is used to trace the evolution and intensity of climate change concerns and urban development patterns, while environmental reports and policy frameworks provide insights into existing governance mechanisms and adaptation strategies. Newspaper articles and case studies supplement the analysis by offering recent empirical evidence on environmental degradation, emerging social vulnerabilities, and stakeholder responses. The collected data are systematically analyzed to identify patterns, trends, and interconnections between rapid urbanization, ecological stress, and socio-economic risks, thereby enabling a comprehensive assessment of sustainability challenges and policy responses.

4. Literature Review

Senapati's (2015) study of the *Socio-economic effects of climate change: A study of how vulnerable and effective coastal fishing is in Mumbai* (Doctoral dissertation, National Institute of Industrial Engineering, Mumbai) examines the socio-economic impacts of climate change, focusing on the vulnerability and effectiveness of coastal fishing communities in Mumbai. The study underscores that climate change has a big effect on individuals who depend on natural resources, making them more vulnerable to economic and environmental problems. The study employs both primary and secondary data to identify critical socio-economic and climatic variables-such as age, experience, family structure, and frequency of fishing trips-that influence fishermen's awareness, preparedness, and productivity. The study employs frameworks such as the Sustainable Livelihood Approach (SLA) and the Analytic Hierarchy Process (AHP) to develop vulnerability indicators, revealing differences in adaptive capacity across fishing villages. The results show that a lack of institutional support, experience, and access to financial resources makes people more vulnerable. This research is significant for understanding the multifaceted societal risks posed by climate change in urban coastal regions. We need to examine how urbanization, environmental changes, and differences in wealth and income are interconnected.

Shinde's (2024) study on *Climate change, flooding, and urban development in Mumbai* (Unpublished Doctoral thesis, Indian Institute of Technology, Bombay). The paper examines the increasing incidence of urban floods in Mumbai within the context of climate change and rapid urbanization. It asserts that conventional flood control strategies, largely reliant on engineering solutions and temporary adaptation measures, are inadequate for addressing the complex, localized nature of urban flood risks. The paper proposes a transformation method that emphasizes systemic changes within socio-ecological and institutional settings. Employing the "three spheres of transformation" framework practical, political, and personal the research clarifies the significant incorporation of flood hazards into urban development processes, governance structures, and socio-political inequalities.

Shinde employed a mixed-methodology, integrating household surveys, interviews with policymakers and community people, and a case study examination of flood-prone areas, particularly Borivali-Dahisar. It discusses the primary factors that cause floods, including changing land use, the development of infrastructure in low-lying areas, inadequate drainage systems, and poor coordination among diverse groups. The findings indicate that community-based solutions and collaborations among local entities, governmental bodies, and civil society organizations are crucial for mitigating flood risks. Localized, participatory initiatives are more effective than centralized and technical approaches.

The study significantly advances the literature by shifting the discourse from adaptation to transformation and emphasizing the need for an inclusive, proactive, sustainability-centered urban governance. It stresses that urban flooding isn't just an environmental problem; it's also the result of many social, economic, and political factors. This perspective is particularly relevant for understanding how urbanization and climate change create diverse vulnerabilities in places like Mumbai.

Schiller *et al.* (2007) focus on the vulnerability of global cities to climate-related hazards. Schiller *et al.* in their article on "The Vulnerability of Global Cities to Climate Hazards" examine the susceptibility of global cities to climate-related hazards by analyzing three major coastal megacities: Mumbai, Rio de Janeiro, and Shanghai. The study employs a comprehensive vulnerability framework that integrates environmental and socio-economic dimensions, emphasizing that vulnerability is shaped not only by exposure to climatic hazards but also by the capacity of urban systems to withstand and recuperate from such challenges. The authors introduce the concept of "stress bundles", which refers to the interplay among several natural and socioeconomic pressures, such as rising sea levels, intense rainfall, population growth, and inadequate infrastructure, that intensify metropolitan vulnerability.

The findings indicate that cities are significantly more susceptible to climatic hazards when they experience rapid growth, unplanned land-use changes, and substantial wealth and income disparities. The study finds that in Mumbai, living close together, informal settlements in low-lying areas, insufficient drainage systems, and environmental damage all increase the risk of flooding. The study also reveals that global cities are economic centers, but because they are coastal and growing rapidly, they are more likely to be affected by climate change, which can cause flooding, cyclones, and rising sea levels.

The analysis of Schiller *et al.* (2007) underscores that vulnerability is not evenly spread, with underprivileged groups especially those living in informal settlements experiencing the greatest dangers. It also says that current solutions don't always work because they don't address the real social, political, and structural causes of vulnerability. The research significantly advances urban and environmental sociology by linking urbanization processes to the formation of climate risk and demonstrating that urban planning and climate adaptation must be conducted in an integrated, multi-scalar, and inclusive manner.

Kambekar *et al.* (2021) review of the last ten years of climate change and rising sea levels in light of the aims of the Paris Agreement examines the impact of climate change on rising sea levels along the Mumbai coastline and their implications for future flooding through 2050. The study uses sophisticated climate modeling techniques and the MIKE 21 hydrodynamic model to assess sea-level variations across several IPCC scenarios. The study offers a thorough scientific examination of rising sea levels and their possible effects by combining data from numerous national and international sources, including IPCC reports, NASA, and Indian meteorological institutes.

The findings indicate that the sea level will increase by approximately 0.395 meters by 2050 alone due to warming. When you add land subsidence and vertical land movement, this estimate rises to about 0.6 meters. This means that Mumbai is very likely to flood along the coast, especially in low-lying areas with many people. The study emphasizes the need to evaluate urban susceptibility to climate change using both meteorological and geomorphological factors.

The study is particularly pertinent in illustrating that the effects of climate change extend beyond natural processes, affecting infrastructure, urban growth, and disaster management on a broader scale. The study underscores the need for proactive, scientifically informed risk management by focusing on predictive modeling and scenario-based analysis.

The first chapter of Ulrich Beck's (1986) book on *Risk Society: Towards a New Modernity*, Part I - *Living on the Volcano of Civilization*, lays down the issues of wealth distribution and risk distribution. He wanted to emphasize that, with the rise of modernization and industrialization, societies face different issues not only in terms of risk factors but also in the distribution of wealth among people in a particular society. By the term "wealth distribution", he meant the commonwealth, which is unequally distributed among the people, which can be anything such as education, income, property, opportunities, etc. The term risk distribution is which he has emphasis upon that how there are number of risks which the people are going through not only in a particular city or a country, but it has also put in the environment and other ecological entities and species, putting them at risk where the past loses the power to determine the present.

5. Theoretical Framework

5·1 Risk Society

Beck's Risk Society thesis posits that in post-industrial modernity, society is structured around the creation and regulation of novel, anthropogenic (produced) dangers. Advancements in industry provide both benefits and global dangers (such pollution and climate change), and old institutions aren't good at dealing with these unknowns. Urbanization concentrates risk; cities create new dangers (such as heat islands and developments more likely to flood) as part of modernization. Beck's theory is shown by the uncontrolled rise of Mumbai: economic progress has caused environmental problems (extreme monsoon events, pollution) that make people less safe. Climate change is a major risk because it forces cities to deal with problems from around the world on a local level.

5·2 Sustainable Development Goals [SDGs]

The 2030 Agenda (UN 2015) establishes 17 Sustainable Development Goals [SDGs] as universal aims for global development. SDG11 wants to "make cities and human settlements inclusive, safe, resilient, and sustainable", while SDG13 wants to "take urgent action to combat climate change and its effects." The 17 Sustainable Development Goals, which all UN member states have agreed to, aim to make the world a better place for people and the planet by 2030. The issues of poverty and economic growth address many social needs, such as education, health, equality, and job opportunities. They also address the biggest issues, such as climate change, and work to protect and preserve the environment, including forests, oceans, and so on.

5·3 Environmental Justice

Environmental Justice (EJ) is the idea that everyone should have access to a healthy environment and that the benefits and costs of the environment should be shared fairly. The threats posed by climate change and by cities are very different. According to EJ theory, the poorest and most marginalized people in Mumbai, like slum dwellers and lower castes, are the ones who suffer the most from floods, heat, and pollution. It shifts the analysis from the average effect to the people most affected. EJ also stresses involvement, like if slum people were part of the planning that affects them (which is often not the case). In the case of Mumbai, EJ points out that the city's growth (new highways, reclaimed land, and industrial zones) often harms already weak groups.

5·4 Ecological Modernization Theory

This theory says that industrialized nations can use technology, new ideas, and changes to institutions to "reconcile the goals of economic development and environmental protection." It asserts that capitalism and the state can be reconfigured to facilitate sustainable production (e.g., cleaner technologies, pollution control) as part of a progressive growth plan. EMT would say that Mumbai can reduce climatic and urban risks by using technology and sound government. Some ways to reduce pollution include modern drainage systems, waste-to-energy plants, green construction standards, and public transportation. If Mumbai were becoming more environmentally friendly, it would have robust green infrastructure (such as mangrove restoration and permeable pavements) and partnerships between businesses and the government to advance environmental technology. This method aligns with the SDGs in theory and offers hope for "clean growth" in cities.

6. Findings/Results

Mumbai is one of the most populous cities in India and ranks among the largest urban agglomerations in the world. The immense population concentration in Mumbai not only reflects its global urban prominence but also intensifies its exposure to climate hazards, as high-density settlements, informal housing, and stressed infrastructure exacerbate the impacts of flooding, extreme precipitation, and coastal risks. The review of empirical studies indicates that rapid urbanization in Mumbai has significantly heightened its vulnerability to climate hazards significantly through city's exposure and sensitivity, particularly flooding and sea-level rise. The studies collectively show that unplanned expansion, land reclamation, loss of natural buffers, and the degradation of natural drainage systems have increased the frequency and severity of urban floods, while coastal communities—especially small-scale fishing households—face growing livelihood insecurity due to changing marine ecosystems and extreme weather events. Projections of sea-level rise and coastal inundation further suggest that critical infrastructure and densely populated low-lying areas are at heightened risk, reinforcing patterns of spatial and social vulnerability. These findings demonstrate that climate risks in Mumbai are not merely environmental but are deeply embedded in socio-economic structures, disproportionately affecting marginalized populations and subsequently are more dangerous for people and their livelihoods.

United Nations's Sustainable Development Goal 13 (SDG 13) is designed to combat climate change and its impacts, and it can significantly help a city like Mumbai—especially with risks like flooding, heatwaves, and sea-level rise. SDG 13 plays a crucial role in addressing climate change impacts in Mumbai by promoting adaptation, resilience, and disaster risk reduction. However, given the city's complex socio-economic and environmental challenges, its effectiveness depends on how well it is implemented and how it is combined with other development goals, particularly those related to urban development, infrastructure, and poverty reduction.

From a theoretical perspective, these patterns align with Ulrich Beck's notion of risk society, wherein processes of modernization generate "manufactured risks" that are unevenly distributed across social groups. At the same time, the findings partially support Ecological Modernization Theory by indicating that technological and policy interventions—such as improved flood management systems and coastal protection measures—have the potential to mitigate risks, though their effectiveness remains constrained by governance gaps and unequal access. The framework of Sustainable Development Goals, particularly climate action, emerges as relevant but insufficient on its own, as structural inequalities and issues of environmental justice continue to shape differential vulnerability. Overall, the findings highlight that the intersection of urbanization and climate change in Mumbai produces complex, layered risks that require integrated and socially inclusive responses.

7. Discussion

This analytical review demonstrates that rapid urbanization in Mumbai has intensified the interlinkages between climate change and socio-economic vulnerabilities, thereby producing uneven patterns of risk and resilience. The findings indicate that while urban growth contributes to economic development, it simultaneously exacerbates environmental degradation and heightens livelihood insecurities, particularly among marginalized populations. In this context, Ulrich Beck's concept of "manufactured risks" is useful in explaining how modern processes of development generate new and unevenly distributed environmental hazards.

The study further highlights the relevance of Sustainable Development Goals, particularly SDG 13, as an integrative framework for addressing climate challenges through the lens of sustainability and social equity. However, its implementation remains constrained by governance gaps, spatial inequalities, and growth-oriented development paradigms. While Ecological Modernization Theory offers an optimistic perspective on aligning technological innovation with sustainability, the analysis suggests that such approaches must be complemented by stronger commitments to environmental justice and inclusive policy frameworks.

Addressing the complex challenges of climate change in rapidly urbanizing contexts requires moving beyond fragmented policy responses toward a more integrated sociological approach that connects urbanization, risk, and inequality. Effective urban policy must prioritize climate resilience, equitable resource distribution, and participatory governance to ensure that future development pathways are not only sustainable but also socially just and inclusive.

8. Conclusion

This study concludes that rapid urbanization in Mumbai has significantly intensified the interaction between climate change and social vulnerability, thereby creating uneven patterns of risk and resilience across different social groups. The analysis highlights that while development processes contribute to economic growth, they also deepen environmental stress and livelihood insecurities, particularly among marginalized populations. It must be remembered that more than 42% of residents in Mumbai live in slums and as such they are more exposed to climate risks (Kanekar and Vaze, 2022). Prioritizing more vulnerable and marginalized communities and making them part of the planning process is vital. The relevance of Sustainable Development Goal 13 emerges as crucial in guiding sustainable and inclusive urban transitions, though its effectiveness depends on context-sensitive implementation and governance capacity. Overall, the study emphasizes that achieving sustainable urban futures requires integrating climate resilience, social equity, and participatory governance into the core of development planning, ensuring that growth is both environmentally sustainable and socially just.

9. Policy Measures and Urban Development Strategies for Climate Resilience

Findings/results of this study suggests that a coherent policy response to the intersecting challenges of urbanization, climate change and social risk in Mumbai. Urban development strategies for climate resilience require an integrated and equity-oriented approach that aligns urban planning with climate resilience, focus more on the integrating nature-based solutions (such as green roofs, urban forests, parks, wetlands, biodiversity enhancement etc.), upgradation of infrastructure so that it can handle extreme weather and also updating land-use planning that is required to restrict development in high-risk zones, implement buffer zones, control development on hazardous land as well as protect natural ecosystems

India-Specific government and non-government agencies like National Institute of Urban Affairs (NIUA), The Energy and Resources Institute (TERI), GIZ India, Coalition for Climate Resilient Investment (CCRI), Asian Development Bank (ADB), City planners and policymakers should prioritize climate-sensitive land-use regulation, strengthen coastal and flood management systems and, at the same time, invest in green and blue infrastructure to mitigate environmental risks.

In line with Sustainable Development Goal 13, there is an underlined need to embed climate adaptation and mitigation strategies within local governance frameworks, ensuring that development projects incorporate sustainability assessments and risk audits. Equally important is the inclusion of vulnerable communities in decision- making processes to address issues of environmental justice and uneven risk distribution. Institutional coordination across municipal bodies, improved data- driven planning, as well as the promotion of sustainable livelihoods can further enhance urban resilience. Overall, it must be stressed that the policy interventions must move beyond fragmented sectoral approaches toward a holistic model that integrates ecological sustainability, social equity, and economic development.

References

Beck, U., ***Risk Society: Towards a New Modernity***, London and New York: Sage Publications, 1992.

Chakraborty, S., ***Sea Level Rise due to Climate Change and Its Impact along the Coast of Mumbai***, Doctoral thesis, Assam Royal Global University, January 2020.

Chakraborty, S., Kambekar, A. R., & Sarma, A., "Effect of climate change and sea level rise along the coastline of Mumbai in 2050 using MIKE 21", ***Journal of Offshore Structure and Technology***, 8(3), 2024, 55-64.

Giddens, A., ***The Consequences of Modernity***, California: Stanford University Press, 1990.

"In Mumbai, more than 80% of people who die due to extreme rainfall live in slums", ***Forbes***, November 18, 2025.

Intergovernmental Panel on Climate Change (IPCC), ***Climate Change 2022: Impacts, Adaptation and Vulnerability***, Cambridge, UK: Cambridge University Press, 2022.

Internet Geography, "What is the location and importance of Mumbai?", (n.d.). Available at https://www.internetgeography.net/geotopics/what-is-the-location-and-importance-of-mumbai/

Kanekar, Sahil and Vaze, Prutha, "Exploring pathways for climate-resilient Mumbai: Adopting a Sustainable Landscapes Approach to Urban Development", ***WRI India Blog,*** September 30, 2022. Available at https://wri-india.org/perspectives/exploring-pathways-climate-resilient-mumbai-adopting-sustainable-landscapes-approach

Manjunatha, S P. and Dolli, Manoj, "Climate Action in India: Policies, Programs and Achievements toward SDG 13", ***International Journal For Multidisciplinary Research***, 7(5), October 2025, 1-10.

Nayak, B. B., "Mangrove felling for Mumbai coastal road prompts call for independent review", ***The Times of India***, March 26, 2026.

Sarkars, Soumya, "India lost 40% of its mangroves in the last century. And it's putting communities at risk", ***The Hindu***, March 10, 2018.

Sassen, S., ***The Global City***, New York, London, Tokyo. Princeton University Press, 2001.

Schiller, A., Sherbinin, A. de, Hsieh, Wen-Hua & Pulsipher, A., "The vulnerability of global cities to climate hazards", ***Environment and Urbanization***, 19(1), 2007, 39-64.

Schnaiberg, A., The Environment: From Surplus to Scarcity, New York: Oxford University Press, 1980.

Sen, A., ***Development as Freedom***, Oxford: Oxford University Press, 1999.

Senapati, S., ***Socio-economic Implications of Climate Change: A Study of Vulnerability and Efficiency of Coastal Fishing in Mumbai***, Doctoral Thesis, National Institute of Industrial Engineering, Mumbai, 2015.

Shinde, S., ***Climate change, flooding, and urban development in Mumbai***, Doctoral Thesis, Indian Institute of Technology, Bombay, 2024.

Stanford Encyclopedia of Philosophy, "Capability approach", April 14, 2011. Available at https://plato.stanford.edu/entries/capability-approach/

Tembhekar, Chittaranjan, "Air quality worry in Mumbai: Many areas cross safe pollution limit", ***The Times of India***, July 17, 2025. ★

Article Received on April 22, 2026; Accepted on May 02, 2026

JOURNAL OF NATIONAL DEVELOPMENT

PEER REVIEWED, INDEXED & REFEREED Bi-ANNUAL INTERNATIONAL JOURNAL

ISSN 0972-8309

https://www.jndmeerut.org

[Vol. 39, No. 1 (Summer), 2026]

https://doi.org/10.62047/JND.2026.06.30.94

Temporary Shifts or Lasting Change? Gender Roles after Women's Return From Foreign Labour Migration

Dipendra Pandey

MPhil, Sociology, Tribhuvan University, Kathmandu (Nepal)

E-mail:<pd.dipen@gmail.com>

Abstract

This study explores how women's return from foreign labour migration affects traditional genders roles and household decision making in rural Nepal, examining whether these changes are temporary adjustments or enduring transformations. This research, conducted in Dupcheshwor Rural Municipality, Nuwakot Nepal, employed a qualitative interpretive design with 24 purposively selected households, including returnee women and other household members. Data were collected through in-depth interviews, field observation, and secondary sources, and analyzed thematically to understand household labour division, decision making dynamics and continuity or change in gender roles. Findings reveal that before migration, household labour followed a clear gendered division in which women primarily managed in-house tasks such as cooking, cleaning, childcare, and livestock care, while men handled out-of-house responsibilities including farming, wage labour, and community engagements. During migration, household responsibilities were temporarily redistributed to husbands and children in nuclear households, and mothers-in-law or other female relatives in extended households assumed domestic duties. However, these shifts largely transferred workload rather than challenging patriarchal structures. Upon return, most women resumed their pre-migration roles, with limited increases in household decision making participation. Male household heads continued to dominate financial and strategic decisions, reflecting the persistence of traditional gender norms. The migration period also had intergenerational implications, increasing the workload of senior female members and affecting children's emotional well being and educational outcomes. Overall, women's foreign labour migration created temporary household adjustments without substantially transforming traditional gender roles or authority structures. The study highlights the resilience of patriarchal norms and emphasizes the need for policies addressing both economic and social dimensions of women's empowerment.

Keywords

Women, Labour migration, Household, Gender roles, Decision making, Returnees, Rural Nepal.

Centre For Studies of National Development, Meerut

Editorial Office : D-59, Shastri Nagar, Meerut - 250 004 (INDIA)

Ph. : 0121-2763765, +91-9997771669, +91-9412200765

7

Temporary Shifts or Lasting Change? Gender Roles after Women's Return From Foreign Labour Migration

1. Introduction

Foreign labour migration has long shaped Nepal's social and economic landscape, yet it's gendered dimensions remain unevenly understood. While substantial body of research has explored male out-migration and its' impact on women left behind, far less attention has been paid to what happens when women migrate and more importantly, when they return. Existing studies acknowledge that women's earnings from foreign employment can enhance their economic standing and self-perception, but there is limited in-depth analysis of whether such economic mobility leads to lasting transformations in household decision making and gender roles. The central problem this paper addresses is thus not simply whether a woman's foreign labour migration disrupts traditional norms, but whether these disruptions endure after women return to their respective home.

Migration, broadly defined as the structural or geographical movement of people between locations (UN, 1956), has historically been categorized into internal and international forms (Bhende and Kanitkar, 2006). In Nepal, international migration has become a dominant livelihood strategy, driven by poverty, food insecurity, unemployment, and uneven development (KC, 2003; Shrestha, 2004, 2008). Although labour migration from Nepal dates back two centuries, it gained formal recognition after the Foreign Employment Act 1985. Since then, foreign labour migration has steadily increased (Sijapati, Mak, Zimmerman, and Kiss, 2019). Traditionally, men dominated these flows, particularly to India and later to the Gulf States and Malaysia. However, the last few decades have witnessed a significant rise in women's participation. Official records show that only 161 women migrated for foreign employment between 1985 and 2001, but this number rose dramatically to 21,421 by 2014-2015 (Government of Nepal, 2014; Gioli *et al*., 2017). Between 2008/09 and 2017/18, labour permits issued to women increased by 160 percent, compared to 56 percent for men. Globally, women now account for nearly 45 percent of international migrants (UN, 1995). Feminist scholarship has emphasized that gender is socially constructed and shapes migration decisions, networks, risks, and outcomes (Lim, 1995). Gender roles influence who migrate, under what conditions, and with what consequences. In patriarchal societies like Nepal, where men are typically positioned as breadwinners and decision-makers and women as caregivers and homemakers (Kasper, 2005; Achrya *et al*., 2010), migration can disrupt deeply embedded power structures. Women's absence from the household challenges the conventional division of labour, compelling husbands, in-laws, and children to assume responsibilities traditionally carried out by women (Hugo, 2002; Thao, 2015).

To examine the household gender dynamics of women after their return from foreign labour migration, this study focuses on whether migration leads to changes in gender roles, decision making power, and division of household labour within the household, or whether these arrangements remain similar to those before migration. Understanding this requires a clear grasp of the concept of gender, gender roles, and household labour division, as discussed in global literatures and theoretical frameworks. Such a foundation provides a lens to analyze how migration may influence, challenge, or reinforce existing gender roles within the households.

Gender is widely understood as a socially constructed concept that shapes the distinctions between women and men in various spheres of life, including work, social roles and responsibilities. Although the term gender has been interpreted in different ways across academic discussions, it generally refers to the social and cultural processes through which differences between women and men are defined and organized. As noted by Kamla Bhasin, gender refers to the socio-cultural understanding of women and men, and the ways in which societies distinguish between them and assign corresponding social roles and responsibilities. According to Kamla Bhasin (2000), argued, in may societies, men have traditionally been viewed as the heads of households, primary breadwinners, and controllers of property, and are more actively involved in spheres such as politics, religion, business, and professional life. Women on the other hand, are generally expected to take responsibility for child care, elderly care, and managing household chores. However, the extent of such role differentiation varies across societies, and in some contexts temporary shifts in roles may occur without strong social resistance. From an early age, girls and boys are often socialized into different types of work. In gender analysis, these activities are commonly categorized into three types: productive work, which generates income or goods; reproductive work, which involves domestic labour and care giving; and community work, which includes activities carried out for the benefit of the wider community (Bhasin, 2000).

One of the foundational sociological explanations of gender roles within the family was proposed by Talcott Parsons and Robort F. Bales, who offered a functionalist perspective on family organization. According to Parsons and Bales (1955), argued that the modern nuclear family is structured through a clear differentiation of roles between men and women. Within this framework, men are typically assigned instrumental roles, which encompass economic provision and engagement with the external environment, while women are generally assigned expressive roles, which include emotional support, care giving, and the management of household tasks. This gender-based division of labour was functional, serving to maintain stability and cohesion within the family system. Ann Oakely (1974), argued that domestic labour and care giving responsibilities assigned to women are socially constructed rather than biologically determined.

She demonstrated that housework constitutes a form of labour that has historically been undervalued and disproportionately imposed women in patriarchal societies. Okelay's analysis emphasized the ways in which the gendered division of household labour reinforces broader structures of gender inequality.

Another significant theoretical contribution to understanding household power relations is provided by Amratya Sen through his intra-household bargaining perspective. Sen's concept of "cooperative conflict" explains that relationships within the household involve both cooperation and negotiation over the distribution of resources and responsibilities. According to this framework, the bargaining position of each household member is shaped by factors such as control over income, access to employment, and availability of economic and social resources. When women obtain independent sources of income such as paid through employment or labour migration, their bargaining position within the household may improve, thereby increasing their ability to participate in and influence household decision making processes (Sen, 1990).

Several studies suggest that migration may increase women's autonomy and decision making power, particularly when they contribute economically through remittances (Sikod, 2007).

However, this empowerment is not uniform. In nuclear households, women may gain greater authority, whereas in extended families, decision making often remains under the control of senior household members, such as in-laws (Rajkarnikar, 2017). In addition to, research indicates that role reversals are frequently temporary, upon return, women often resume childcare and domestic duties in line with prevailing social norms (Hugo, 2002). The persistence of patriarchal expectations may also generate tension, especially when women's earnings surpass those of their husbands, potentially leading to feelings of emasculation or conflict (Thao, 2015). In Nepal, traditional gender roles remain strongly institutionalized. National survey data show that married women have limited authority over major household purchases, with only 38 percent participating in key household decisions (NDHS, 2016). Even when men migrate, financial decisions are often made by male relates (Sherpa, 2010). These patterns raise critical questions about whether women's own migration can fundamentally recognized women as active agents in migration processes, much of the existing research in Nepal focuses on economic outcomes or the experiences of women left behind. There is a clear research gap regarding how women's return from foreign labour migration reshapes or fails to reshape household gender dynamics. Specifically, limited attention has been given to how returning women renegotiable domestic responsibilities, decision making power, and their relationships with husbands and in-laws. Furthermore, there is insufficient analysis of how masculinity is reconstructed when men temporarily assume domestic roles and whether these adjustments persist after women resume their presence in the household.

Addressing this gap is significant both academically and socially. Understanding whether migration leads to structural transformation or merely temporary adjustment can inform gender sensitive migration policies and family support mechanism. It also contributes to broader sociological debates about the flexibility of gender norms under economic pressure. By exploring the experiences of women who have returned from foreign labour migration, this study seeks to assess whether economic empowerment translates into lasting change in household power relations or whether traditional gender roles reassert themselves once migration ends. Thus, the primary objective of this research is to explore the extent to which traditional gender roles change within the household upon women's return from foreign labour migration. Through this process, the study aims to contribute to a more nuanced understanding of the intersection between migration, gender, and household dynamics in rural Nepal, going beyond economic indicators to examine the lived realities of power, responsibility, and identity within the household.

2. Methods and Materials

This study was grounded in an interpretive research paradigm. It proceeded from the ontological assumption that household gender roles and decision-making power are not fixed structures but socially constructed and continuously negotiated through everyday interactions. Women's engagement in foreign labour migration was understood as a social process that may destabilize established gender norms, particularly when women assume the role of income earners and men temporarily engage in domestic responsibilities. The study therefore recognized multiple realities shaped by the diverse experiences, emotions, and perceptions of the participants. Epistemologically, it adopted an interpretive stance, treating respondents' lived experiences and subjective meanings as the primary source of knowledge.

Fieldwork was conducted in Dupcheshwor Rural Municipality, Nuwakot Nepal. Two wards Samudratar and Gaukharka were purposively selected due to the relatively high incidence of women's foreign labour migration, particularly to Gulf countries. The selection was further guided by practical considerations of time and resource availability. Secondary information regarding the study area, including education status, occupation patterns, and local economic activities, was drawn from the village profile of Dupcheshwor Rural Municipality and relevant published literature, while primary data were generated through field survey.

A qualitative research design was employed to explore the lived experiences of women engaged in foreign labour migration and its implications for household gender dynamics. The unit of analysis was the household in which at least one married women had engaged in foreign employment for a minimum one year. Purposive sampling was used to select respondents who met specific criteria relevant to the research objectives. A total of 24 households were purposively selected for the study, comprising 10 households of women returnees from foreign labour migration and 14 households of families with currently absent women migrants.

Both primary and secondary data were utilized. Primary data were collected through in-depth interviews and field observation. Interview checklists were developed for returnee women. Interviews explored themes such as division of household labour before, during and after migration; patterns of decision making; perceptions of traditional gender roles; and experiences of renegotiation within the household. Interviews were conducted in person during the fieldwork period. Conversations were recorded in written notes, and a field diary was maintained to document observations and informal discussions. Observation complemented interview data by providing contextual insights into daily household routines and interactions.

Secondary sources, including books, journal articles, and official documents, were reviewed to contextualize the empirical findings and verify local socioeconomic information.

Data analysis followed an interpretive and thematic approach. Interview notes were organized and translated where necessary. Relevant information was entered into an Excel sheet for systematic classification. Responses were coded thematically around key areas such as labour division, decision making authority, and continuity or change in traditional gender roles.

The analysis involved indentifying patterns, similarities, and contrasts across households and respondent categories. Selected narratives were presented to retain the voice of participants and to reflect the complexity of their lived realities. The findings were interpreted in dialogue with relevant theoretical perspectives and empirical literature, ensuring that the analysis remained grounded in both field evidence and broader sociological debates. Overall, the methodological design prioritized depth over breadth, aiming to capture the nuanced and sometimes contradictory ways in which women's foreign labour migration reshaped temporarily or enduringly -household gender dynamics in rural Nepal.

3. Results and Discussion

3.1 Socioeconomic Context of the Study Area

Dupcheshwor Rural Municipality, located in Nuwakot district of Bagmati Province Nepal, represents a predominantly rural and indigenous setting where agriculture remains the backbone of everyday life. The municipality covers 131.62 square km and, according to the 2021 census, has a population of over 21,000 with a nearly equal distribution of men and women. A significant proportion of the population belongs to the Tamang community, and Buddhism is the dominant religion among the households.

The demographic profile of the 10 sampled households reflects this broader structure. The average household size was 6.33 members, and 75 percent of households were extended in nature. Although 67.1 percent of the population fell within the economically active group, 39.47 percent were dependents, indicating considerable household responsibility on working members. Agriculture engaged

37.5 percent of the sample population, while 11.18 percent were involved in foreign employment. These figures situate women's migration within a context of limited local employment opportunities, persistent poverty (over half of households facing marginalization), and strong kinship-based living arrangements. The destination pattern of migrant women further illustrates the feminization of labour migration in this area. Around 70.8 percent of women were employed in Kuwait, followed, followed by Qatar (20.8 %|), with smaller numbers in Dubai and Lebanon. These destinations, largely in the Gulf region, are consistent with national trends of female migration into domestic and care work sectors.

3·2 Division of Household Labour: Continuity and Adjustment

Before migration, household labour followed a clear gendered division. Women were primarily responsible for in-house chores such as cooking, cleaning, childcare, laundry, manure collection, and livestock care. Men on the other hand, handled out-house roles and responsibilities including plough fields, irrigation, marketing, wage labour, and participation in community meetings and programs. While there was occasional cooperation, the underlying structure was patriarchal and role-specific.

When women migrated, some redistribution of tasks became necessary. In nuclear households, husbands temporarily assumed responsibilities such as cooking, cleaning, and childcare, often with support from older children. In extended households, mother in-law or other female relatives absorbed most of the household responsibilities previously handled by the migrant women. This shift, however, did not necessarily challenge the gendered nature of labour; instead, it often transferred the burden from one woman to another.

These findings resonate with Thao (2015), who argued that husbands may take on domestic duties in the absence of migrant wives, yet such challenges are frequently pragmatic rather than ideological. Similarly Hugo (2002) observed that shifts in household roles during female migration often remain temporary, with traditional norms reasserting themselves once women return. In rural village Dupcheshwor, the evidence suggests a pattern of adjustment rather than transformation. An important dimension that emerged from interviews was the emotional and educational vulnerability of children left behind. One child's account of missing his mother and struggling academically reflects the hidden social cost of migration. While remittances may strengthen household income, the psychological impact on children requires closer attention in future research.

3·3 Women's Involvement in Household Decision Making

The major objective of this study was to explore whether women's engagement in foreign employment altered their decision making power within household. The findings indicate limited structural change. Before migration, only 14.3 percent of women were actively involved in household decision making. During migration, this increased to 33.3 percent, largely through communication and remittance management. After returning, involvement rose slightly to 40 percent. Although this progression suggests some improvement, the majority of women (60 percent) remained excluded from major household decisions even after contributing economically.

In extended households, senior male members, particularly fathers-in-law, continued to dominate financial and strategic household decisions. In few nuclear households, women who had previously exercised influence resumed decision making roles after return from foreign labour migration. However, these cases were exceptions rather than the norm. These findings challenge the assumption that earning income automatically translates into empowerment. Achrya *et al*. (2010) noted that traditional gender norms often restrict women's influence over household resources despite their economic contributions. Likewise, Sikod (2007) observed that women with earning power may be consulted more frequently, yet structural authority often remains male-dominated. The Dupcheshwor case aligns with these arguments: migration created moments of consultation but did not fundamentally reconfigure patriarchal authority.

3·4 Return Migration & the Persistence of Traditional Gender Roles

The most striking pattern emerged in the post-return phase. Regardless of having worked abroad and contributed remittances, most women resumed their previous domestic responsibilities upon return. Their participation in community meetings and financial decision making either declined or remained unchanged. One returnee's narrative illustrates this dynamic vividly. Her husband's insistence that he remained "the head of the house" despite her overseas employment reflects the persistence of male authority. Her temporary role as breadwinner did not permanently alter her subordinate position within the household hierarchy.

This pattern supports Hugo's (2002) argument that gender role reversals during migration often revert once the migrant returns home. While migration may create a temporary disruption in gender norms, deeply embedded cultural expectations tend to restore previous arrangements. In Dupcheshowr, women's economic contribution did not automatically lead to sustained empowerment or renegotiation of authority. However, it would be simplistic to conclude that migration had no impact. Exposure to foreign environments, independent earnings, and mobility appeared to influence women's self perception and confidence, even if these shifts were not fully institutionalized within the household. The tension between personal transformation and structural continuity remains a key insight of this study.

4. Conclusion

This research examines whether women's return from foreign labour migration brings significant change to traditional gender roles within the household. Based on qualitative evidence from the study area- Dupcheshwor Rural Municipality, the findings suggest that while women's foreign labour migration temporarily disrupts established divisions of labour, these disruptions rarely translate into lasting structural transformation after their return. During women's absence, household were compelled to adjust. In nuclear households, husbands and teenage children assumed domestic responsibilities such as cooking, cleaning, and childcare. In extended households, mothers-in-law largely assumed the domestic workload. These adjustments demonstrate that gendered roles are not biologically fixed but socially organized and practically negotiable when circumstances demand it. However, the redistribution of labour often shifted responsibilities from one woman to another than fundamentally challenging patriarchal norms.

The most critical finding emerges in the post-return phase. Upon returning home, most women resumed the same domestic roles and responsibilities they had performed prior to migration. Their participation in household decision making showed only marginal improvement compared to the pre-migration period. Although involvement increased slightly during migration, largely through remittance management and consultation, male household heads, particularly husbands and fathers-in-law, continued to dominate major financial and household strategic decisions. This indicates that women's economic contribution alone did not substantially after institutionalized hierarchies of authority.

From a structural functionalist perspective, the household appears to absorb temporary disruptions in order to restore equilibrium. Gender roles, deeply embedded in cultural expectations, reassert themselves to maintain continuity and perceived stability. At the same time, insights from socialist feminist theory help to explain why economic participation did not automatically translate into empowerment. Women's unpaid domestic labour resumed upon return, reinforcing patterns of economic and symbolic dependence despite their previous status as income earners overseas.

The findings also reveal intergenerational consequences. Elderly women, particularly mothers-in-law, experienced increased workloads during migration periods, and children, especially adolescents took on additional responsibilities that sometimes affected their emotional wellbeing and educational performance. These outcomes complicate the common narrative that migration solely strengthens household welfare through remittances. Overall, the study concludes that women's return from foreign labour migration in this rural context resulted in temporary adjustments rather than enduring transformation of traditional gender roles. While migration created moments of negotiation and modest increases in women's voice, it did not significantly restructure household power relations. Traditional gender norms persisted, especially in extended household settings where senior male authority remained strong. These findings emphasize that economic mobility alone is insufficient to dismantle deeply rooted patriarchal arrangements. By highlighting women's experiences after return, not only during migration, this study contributes to a more nuanced understanding of how gender, labour, and family intersect in rural Nepal, and it highlights the need for policies that address both economic and social dimensions of women's empowerment.

5. Implications and Directions for Further Research

The findings contribute to existing knowledge by illustrating that women's foreign labour migration in rural Nepal leads primarily to adaptive adjustments rather than enduring transformation of traditional gender roles. Decision making power increased marginally but remained structurally constrained, especially in extended households. These results highlight the resilience of patriarchal norms even under conditions of economic change. At the same time, subtle shifts in attitudes and intergenerational dynamics suggest that long-term effects may not be immediately visible. Future research could adopt a longitudinal design to explore whether repeated cycles of migration gradually reshape gender relations. Comparative studies between nuclear and extended households may also reveal differing trajectories of change. Additionally, more focused research on children's psychological wellbeing in migrant households is necessary to understand the broader social consequences of female migration. Overall, the study suggests that women's return from foreign labour migration in Dupcheshowr produced temporary adjustments in household roles but limited structural transformations. The persistence of traditional gender hierarchies indicates that economic participation alone is insufficient to dismantle deeply rooted social and gender norms.

References

Acharya, D. R., Bell, J. S., Simkhada, P., Van Teijlingen, E. R., & Regmi, P., "Women's autonomy in household decision-making: A demographic study in Nepal", ***Reproductive Health***, 7(15), 2010, 1-12.

Bhasin, Kamla, ***Understanding Gender***, New Delhi: Kali for Women, 2000.

Bhende, A., & Kanitkar, T., ***Principles of Population Studies***, New Delhi: Himalaya Publishing House, 2006.

Gioli, G., A. Maharjan and Gurung M., ***Neither heroines nor victims: Women migrant workers and changing family and community relations in Nepal***, United Nations Entity for Gender Equality and Empowerment of Women, UN-Women, 2017.

Government of Nepal, ***Labour migration for employment:A status report for Nepal: 2013/2014***, Ministry of Labour and Employment, Government of Nepal, Kathmandu, 2014.

Hugo, G., "Effects of International Migration on the Family in Indonesia", ***Asian and Pacific Migration Journal***, 11(1), 2002, 13-46.

Kaspar, H., ***I am the Household Head now!. Gender Aspects of Out-Migration for Labour in Nepal***, Switzerland: Institute for Participatory Health Care (Arbeitstitel), 2005, 149.

KC, B. K., Migration, "Poverty and Development in Nepal", Paper presented at the Economic and Social Commission for Asia and the Pacific - Ad Hoc Expert Group Meeting on Migration and Development, Bangkok, August, 2003.

Lim, L., "The Status of Women and International Migration", ***International Migration Policies and the Status of Female Migrants***, United Nations Department for Economic and Social Information and Policy Analysis, Population Division. New York: United Nations, 1995.

Oakley, A., ***The sociology of housework***, New York: Pantheon Books, 1974.

Parsons, T., & Bales, R. F., ***Family, Socialization and Interaction Process***, New York: Free Press, 1955.

Rajkarnikar, P. J., ***The Impacts of Foreign Labor Migration of Men on Women's Empowerment in Nepal***, PhD Thesis, Department of Economics, University of Massachusetts, USA, 2017.

Sen, A., "Gender and cooperative conflicts", I. Tinker (ed.), ***Persistent inequalities: Women and world development***, New York: Oxford University Press, 1990, 123-149.

Sherpa, D., ***Labour migration and remittances in Nepal: Case study report***, International Centre for Integrated Mountain Development, ICIMOD, 2010.

Shrestha, B., "Foreign Employment and the Remittance Economy of Nepal", M. Dahal, ***The Nepalese Economy: Towards Building a Strong Economic Nation-State***, Tribhuvan University: Central Department of Economics (CEDECON), 2004.

Shrestha, B., "Contribution of Foreign Employment and Remittances to Nepalese Economy", ***Economic Review***, Nepal Rastra Bank 20, 2008, 1-15.

Sijapati, B., Mak, J., Zimmerman, C., & Kiss, L., "Nepali women's labor migration: Between protection and proscription", ***Migration Letters***, 16(4), 2019, 611.

Sikod, F., "Gender division of labour and women's decision-making power in rural households in Cameroon", ***Africa Development***, 32(3), 2007, 58-71.

Thao, V. T., "When the pillar of the home is shaking: Female labor migration and stay-at-home fathers in Vietnam", M. C. Inhorn, W. Chavkin, & J. Navarro (eds.), ***Globalized Fatherhood***, Oxford: Berghahn, 2015, 129-151.

United Nations (UN), "Introduction", ***International Migration Policies and the Status of Female Migrants***, United Nations Department for Economic and Social Information and Policy Analysis, Population Division. New York: United Nations, 1995. ★

Article Received on April 22, 2026; Accepted on May 04, 2026

JOURNAL OF NATIONAL DEVELOPMENT

PEER REVIEWED, INDEXED & REFEREED Bi-ANNUAL INTERNATIONAL JOURNAL

ISSN 0972-8309

https://www.jndmeerut.org

[Vol. 39, No. 1 (Summer), 2026]

https://doi.org/10.62047/JND.2026.06.30.105

Decline of Social Values in Contemporary Society: Causes and Preventive Measures

Sameer Kumar Singh

Principal, JSM Academy, Salarpur, Mawana Road, Meerut, Uttar Pradesh (India) E-mail:<jsmacademy2023@gmail.com>

Abstract

This article reports an exploratory study into the preparation of student teachers for moral education. The designing of goals, program parts and teaching and learning methods for a part of the first year curriculum of a teacher education institute for primary education is described. Next the teacher educators who carried out the curriculum and the student teachers who participated in it, were asked whether they recognized the moral aspects of the curriculum as designed. Finally, we tested the effects of the curriculum on the learning of the student teachers, using a pre- and post-test. The results of the study evoke, among others, the conclusion that more attention is needed to the implicit and unplanned aspects of preparing students and teachers for moral education. For a question whether value can be taught as a separate subject, the answer is that both ways may be adopted as per the demands of the situation. Modern educationists are of the opinion that values are caught as well as taught. But the challenges before us are to revivify our country and society by inculcation of ethical, social and spiritual values. The present malady in our society is the absence of ethical conduct. Only education in human values can help retain humanness, promote purity and thereby help human beings to unfold the hidden divinity. Values Education is known internationally by a number of names, including Moral Education, Character Education and Ethics Education. Each variant has a slightly different meaning, pointing to one or other distinctive emphasis. Overriding these differences, however, is a common theme born of a growing belief that entering into the world of personal and societal values is a legitimate and increasingly important role for teachers and schools to play. International research into teaching and schooling effects is overturning earlier beliefs that values were exclusively the preserve of families and religious bodies and that schools therefore functioned best in values-neutral mode.

Keywords

Value education, Social values, Ethical conduct, Preventive measures.

Centre For Studies of National Development, Meerut

Editorial Office : D-59, Shastri Nagar, Meerut - 250 004 (INDIA)

Ph. : 0121-2763765, +91-9997771669, +91-9412200765

8

Decline of Social Values in Contemporary Society: Causes and Preventive Measures

1. Introduction

The political, social and scientific attention to the moral aspects of teaching also concerns teacher education. If you ask any group of adults, from 18 through 80, whether kids today are worse than kids in their time, they will usually insist that they are. Teachers can offer terrifying examples of elementary school children cursing at them, middle school youngsters engaged in promiscuous sexual behaviour, high school students selling drugs, and a pervasive acceptance of bullying, cheating, lying, and general bad behaviour. What has happened to the world, that young people today appear so bereft of values? Are parents too busy? Is the media, from video gaming to television to movies, creating a selfish me-centred citizenry? Has moral relativism destroyed any notion of good? Or is this simply a case of misremembering what angels we all were when we were their ages? But regardless of such comparisons, we can consider ways in which education could offer our young people opportunities to learn better values, and live them. Each variant has a slightly different meaning, pointing to one or other distinctive emphasis. Overriding these differences, however, is a common theme born of a growing belief that entering into the world of personal and societal values is a legitimate and increasingly important role for teachers and schools to play.

Teaching moral values is very necessary for the all-round development of a person. It includes discipline, manners and etiquette, behaviour, control over oneself, politeness, strength, patriotism, love and care for each other. It also includes speaking truth, no stealing, becoming a good citizen. Moral values are also necessary for developing healthy and friendly relations with everyone. Loss of moral values is a direct loss of the country. A child must be given moral education at an early stage. He must be taught the importance of moral, ethical and family values.

By family values, we mean to have good thoughts, good intentions and good deeds, to love and to care for those whom we are close to and are part of our groups or communities, like parents and other family members and friends too. They must learn to treat others with the same set of values with which they wish to be treated. Ethical values define a set of principles of right conduct. A child must learn moral values in school, many of the schools teach the students to develop their character through books, moral stories, essays, plays.

An easy and one of the best ways to impart moral set of values and principles in a child. The child must be taught so as they must be filled with moral virtues such as wisdom, courage, justice. These days, we see some students misbehaving with teachers, people go on strike burning buses, including in bad politics or doing other kinds of harms, thus deteriorating moral values. They are having just opposite qualities of these moral virtues such as they start believing in injustice, tyranny, or may be cowardness. A child gets to know and can easily decide what is right and what is wrong for him, learns to behave mannerly in a society, he understands his responsibilities through moral values.

Moral principles held the world together. So, there is a need of set of moral principles and values to be imparted in the children to make them a better and a responsible citizen.

The downfall of Indian Cultural Values is not as important so much as basic humanity morals. I don't care whether you are getting more westernized in your dressing; in fact you're being quite the hypocrite when you're talking against westernization while typing in a western language wearing western clothes on a western medium. What I care about is the fact that humanitarian values are degrading in our countries in a bid to keep onto Indian traditions. Women don't get raped because of western wear but because men seeing them as equals or even bigger than them get threatened, they feel that a patriarchal society where men are the supreme beings should be allowed to rule the way they wish to see fit, if they can't keep it in their pants then it's their problem and they should be dealt with extreme severity. Instead of focusing on teaching our children what to wear and how to "remain Indian" we should teach them how to behave with people, that everyone is created equal. We should tell them what's wrong or right from a humanitarian perspective rather than a cultural perspective that was established my mortal men who wanted to be at the top, even if you read your holy books there is no mention of these cultures we keep following brainlessly, if you want to follow culture follow it but with a deep understanding of it instead of a superficial one.

Also, I feel that the easy money in most hands, and the desire of easy money more than anything has lead to this moral decline.

2. Causes of Decline of Social Values in Contemporary Society

The majority of people in any society usually follow the examples set by the leaders and popular people that they adore. Most of the leaders and popular people are usually involved in activities that are designed to satisfy their greed and selfishness with little or no regards for the welfare of others or for the environment.

The result of selfishness and greed is oppression and prejudice where the leaders and popular persons do not practice integrity, equity and justice so the society loses all respect for the rights of others in their struggle for self preservation. what one person thinks is a moral imperative is not necessarily a moral imperative to another. For example in some a woman walking along the street without a bag over her head would mean she is so immoral that she deserves to be killed for her loose behaviour. While we would see that treating the woman like that as an immoral act. It seems that morality in the end is in the opinion of the observer. A lot of the nicety's that were once part of everyday life seem to be disappearing because people everywhere are becoming a lot more self cantered.

3. Preventive Measures to Preserve Social Values in Contemporary Society

The ultimate preventive measure to solve this severe social problem is emphasis on value education. Its inevitable need can be explained under following sub-heads:

3·1 Respect for Each Other

Respect for each other refers to recognizing the dignity, rights, feelings, and individuality of others irrespective of differences in caste, class, religion, gender, language, or culture. It promotes mutual understanding, cooperation, tolerance, empathy, and peaceful coexistence, which are essential for maintaining harmony in society and strengthening human relationships.

- **Altruism:** concern for and motivation to act for the welfare of others
- **Civility and cheerfulness:** courtesy and politeness in action or speech
- **Truth:** freedom from deceit or falseness; based on fact or reality
- **Trustworthiness:** worthy of confidence
- **Fairness and good sportsmanship:** freedom from favoritism, self-interest or indulgence of one's likes and dislikes; abiding by the rules of a contest and accepts victory or defeat graciously
- **Patience:** not being hasty or impetuous
- **Compassion, kindness and generosity:** concern for suffering or distress of others and response to their feelings and needs
- **Courtesy and cooperation:** recognition of mutual interdependence with others resulting in polite treatment and respect for them
- **Integrity:** confirmed virtue and uprightness of character, freedom from hypocrisy
- **Honesty:** truthfulness and sincerity

3·2 Respect for Self

Respect for self refers to recognizing one's own dignity, worth, and potential while maintaining discipline, responsibility, and moral integrity in personal and social life. It develops self-confidence, positive behaviour, and a sense of accountability, enabling individuals to contribute constructively to society. The following values and qualities help in strengthening self-respect and personal development:

- **Accountability:** responsibility for one's actions and their consequences.
- **Self-esteem:** pride and belief in oneself and in achievement of one's potential.
- **Knowledge:** learning, understanding, awareness.
- **Moderation:** avoidance of unreasonably extreme views or measures.
- **Respect for physical, mental and fiscal health:** awareness of the importance of and conscious activity toward maintaining fitness in these areas.
- **Commitment:** being emotionally, physically or intellectually bound to something.
- **Perseverance and diligence:** adherence to actions and their consequences.

- **Self control and virtue:** exercising authority over one's emotions and actions.
- **Frugality:** effective use of resources; thrift.
- **Cleanliness:** good habits of personal hygiene and grooming.
- **Work Ethic:** belief that work is good and that everyone who can, should work.
- **Punctuality:** being on time for attendance and tasks.
- **Accomplishment:** appreciation for completing a task.
- **Cooperation:** working with others for mutual benefit.
- **Dependability:** reliability; trustworthiness.
- **Diligence:** attentiveness; persistence; perseverance.
- **Pride:** dignity; self-respect; doing one's best.
- **Productivity:** supporting one's self, contributing to society.
- **Creativity:** exhibiting an entrepreneurial spirit inventiveness; originality; not bound by the norm.

3·3 School Pride

School pride refers to a sense of belongingness, loyalty, and respect towards one's educational institution. It encourages students to uphold the values, discipline, traditions, and reputation of the school through responsible behaviour, active participation, teamwork, and commitment to academic and social excellence. Playing has a contributing role in maintaining and improving all aspects of a school's environment, programs and activities within the context of contributing to the evaluation. This section is intended to guide schools and school systems in assessing the values and character education program. The following procedures (which are not exhaustive or inclusive) may be taken as a whole or piecemeal and may be long-term or short-term in focus; they will be subject to extraneous variables. They could be determined with self-report scales, anecdotal records or published scales. The evaluation model suggested here focuses on the following process and product.

A. Process: Things done, and the efficiency with which they are done:

- Numbers and VW of materials used.
- Numbers and kinds of activities.
- Lesson plans; course objectives.
- Curriculum scope and sequence statements.

B. Product: The effectiveness (outcomes) of what is done:

- Attitude changes regarding sell home, school.
- Behavioural changes in groups or individually: discipline referrals, suspensions, dropouts, fighting, participation in activities, volunteerism, etc.
- Academic performance betterment of the city, county and state.

3·4 Citizenship

Citizenship refers to the awareness of one's rights, duties, and responsibilities towards society and the nation. A good citizen respects laws, participates in community welfare, promotes democratic values, and contributes positively to social harmony, national development, and the well-being of others. The following values and qualities help in strengthening citizenship:

- **Liberty:** freedom from oppression, tyranny or the domination of government
- **Tolerance:** the allowable deviation from a standard. Indulgence for beliefs or practices differing from or conflicting with one's own.
- **Courage:** willingness to face danger with determination.
- **Loyalty:** steadfastness or faithfulness to a person, institution, custom or idea to which one is tied by duty, pledge or a promise.
- **Respect for and acceptance of authority:** the need for and primacy of authority, including the law, in given circumstances.
- **Equality:** the right and opportunity to develop one's potential as a human being.
- **Freedom of conscience and expression:** the right to hold beliefs, whether religious, ethical or political, and to express one's views Justice: equal and impartial treatment under the law.
- **Honour:** a keen sense of ethical conduct one's word given as a guarantee of performance ,Respect for the Natural Environment: care for and conservation of land, trees, clean air and pure water and of all living inhabitants of the earth.
- **Conservation:** avoiding waste and pollution of natural resources.
- **Respect for the creator:** our most basic freedoms and rights are not granted to us from the government but they are intrinsically ours; i.e., the Constitution does not grant Americans the right of freedom of speech, it simply recognizes that each of us is born with that right. This is to say that the founders of the republic recognized a higher authority, a power greater than themselves that endowed every human being with certain unalienable rights that no government or legal document could ever revoke or take away.

4. Strategies to Enhance Value Education

Value education can be promoted effectively through the following strategies that help learners understand, practice, and internalize moral and social values:

- **Telling:** A process for developing values that enables a pupil to have a clear picture of a value-laden situation by means of his own narration of the situation.
- **Inculcating:** An approach geared towards instilling and internalizing norms into person's own value systems.
- **Persuading:** the process of convincing the learner to accept certain values and behave in accordance with what is acceptable.
- **Modelling:** A strategy in which a certain individual perceived as epitomizing desirable/ideal values is presented to the learners as a model.
- **Role playing:** Acting out the true feelings of the actor(s) by taking the role of another person but without the risk of reprisals.

- **Simulating:** A strategy in which the learners are asked to pretend to be in a certain situation called for by the lesson and then to portray the events and also by imitating the character's personality.
- **Problem solving:** An approach wherein a dilemma is presented to the learners asking them what decisions they are going to take.
- Discussing situations, stories, pictures, etc: This technique asks the learners to deliberate on and explain the details in the lesson.
- **Studying biographies of great men:** This is an approach that makes use of the lives of great men as the subject matter for trying to elicit their good needs and thoughts worthy for emulation.
- **Moralizing:** The process of working out a sense of morality through active structuring and restructuring of one's social experiences (e.g. moral reasoning and analysis)
- **Values clarification:** Values clarification as a strategy for values development may be considered as learner-centered. It relies heavily on the pupils ability to process his beliefs, behave according to his beliefs and to make a decision whenever confronted.

Values are the foundation of a peaceful and progressive society. Their decline can lead to social conflict, corruption, crime, and moral instability. Therefore, collective efforts by families, educational institutions, governments, media, and individuals are essential to preserve and strengthen moral and social values for future generations.

5. Conclusion

Values and virtues cannot be developed merely through legislation or formal instruction; they are best nurtured through personal example, meaningful experiences, and educational practice. The study highlights that moral and values education should occupy a central place in teacher education programs, as teachers play a crucial role in shaping the ethical consciousness of future generations. Values are not only taught through curriculum and classroom instruction but are also "caught" through the attitudes, conduct, and interactions of educators and institutions. Values are normally taught by example. Remember, "if it is to be, then change must begin with me". Don't look for others to change first.

In the contemporary social context, the increasing decline of ethical conduct, tolerance, and social responsibility has created an urgent need to strengthen moral, social, and spiritual values. Schools and teacher education institutions must therefore go beyond planned curriculum and give greater attention to the implicit and unplanned dimensions of moral learning that influence students' character formation. Remember, a change in your inner world of thoughts brings a corresponding change in the outer world of events. Values education and its practice have always been the moral fabric of the noble profession.

Teachers and educators must recognize that value education is not merely an academic duty but a social and moral commitment. Effective value education requires engaging both the intellect and the emotions so that learners develop self-discipline, empathy, responsibility, and respect for others. A positive transformation in individual attitudes and behaviour can ultimately contribute to broader social harmony and national development. Thus, values education remains an essential foundation for preserving humanness, promoting ethical living, and building a more peaceful and responsible society.

References

Carr, D., "Four Dimensions of Educational Professionalism", ***Westminster Studies in Education***, 15, 1992, 19-31.

Fryer, R. H., ***Learning for the Twenty-First Century***, First Report, London: National Advisory Group for Continuing Education and Lifelong Learning, 1997.

Further Education Funding Council, ***Professional Development in Further Education***, Coventry: FEFC, 1999.

Hager, P., Gonczi, A. & Athanasou, J., "General Issues about Assessment of Competence", ***Assessment & Evaluation in Higher Education***, 19, 1994, 3-16.

Hargreaves, A. & M. G. Fullan, ***Understanding Teacher Development***, London: Cassell, 1992.

Hargreaves, A., ***Changing Teachers, Changing Times***, London: Cassell, 1994.

Homewood, J., "Personal communication on work in progress", 16 October 1998.

Hoyle, E. & John, P. D., ***Professional Knowledge and Professional Practice,*** London: Cassell, 1995.

Hoyle, E., "Professionality, Professionalism and Control in Teaching", ***London Educational Review***, 3(2), 1974, 13-19.

Kennedy, H., ***Learning Works; Widening Participation in Further Education***, Coventry: Further Education Funding Council, 1997.

★

Article Received on May 02, 2026; Accepted on June 02, 2026

JOURNAL OF NATIONAL DEVELOPMENT
PEER REVIEWED, INDEXED & REFEREED Bi-ANNUAL INTERNATIONAL JOURNAL
ISSN 0972-8309
https://www.jndmeerut.org
[Vol. 39, No. 1 (Summer), 2026]
https://doi.org/10.62047/JND.2026.06.30.113

Biodiversity and Forests as Natural Capital: Judicial Governance and Implications for Human Development and Sustainable Commerce in India

Anant Kumar Garg

Independent Researcher; Chartered Accountancy Articleship Trainee under ICAI (India) E-mail:<adamaro20@gmail.com>

Abstract

This study examines biodiversity and forests as natural capital assets within the framework of judicial governance and sustainable commerce in India. While biodiversity conservation has traditionally been viewed through an ecological lens, this paper integrates commerce, human development, and legal interventions to present a multidisciplinary perspective. Using secondary data sources such as the India State of Forest Report (2023), NFHS-5 2020, PLFS 2019, and judicial case analysis, the study evaluates the relationship between forest resources, livelihood dependence, and human development outcomes. The findings reveal a paradox wherein biodiversity-rich regions exhibit weaker health and livelihood indicators, highlighting the need for integrated policy interventions. The study further demonstrates that judicial mechanisms, including landmark Supreme Court cases and High Court interventions, function as ecosystem governance instruments, influencing conservation outcomes and economic activities. The paper contributes by positioning biodiversity as a commercial and developmental asset, linking ecological sustainability with human welfare and proposing a framework for commerce-driven conservation aligned with sustainable development goals.

Keywords

Natural capital, Biodiversity conservation, Judicial governance, Sustainable commerce, Forest economy, Human development, India.

Centre For Studies of National Development, Meerut
Editorial Office : D-59, Shastri Nagar, Meerut - 250 004 (INDIA)
Ph. : 0121-2763765, +91-9997771669, +91-9412200765

9

Biodiversity and Forests as Natural Capital: Judicial Governance and Implications for Human Development and Sustainable Commerce in India

1. Introduction

Biodiversity and forests have increasingly been recognized as critical components of natural capital, contributing not only to ecological stability but also to economic productivity and human well-being. Contemporary sustainability discourse emphasizes that environmental resources are intrinsically linked with livelihoods, health outcomes, and long-term development trajectories (Costanza, *et al*., 1997; World Bank, 2018). As a result, biodiversity is no longer viewed solely as an ecological concern but as a strategic asset within economic and policy frameworks.

India, as one of the world's megadiverse countries, possesses extensive forest resources and rich biological diversity. However, this ecological wealth coexists with significant socio-economic challenges, particularly in forest-dependent regions where communities often experience lower levels of human development. The India State of Forest Report (FSI, 2023) indicates relative stability in forest cover, yet concerns persist regarding forest quality, biodiversity degradation, and the sustainability of ecosystem services.

In response to these challenges, India has developed a distinctive model of environmental governance through judicial intervention, where courts have played an active role in expanding environmental jurisprudence and enforcing conservation measures. Landmark cases such as T.N. Godavarman Thirumulpad v. Union of India (1996) and M.C. Mehta v. Union of India (1987) have redefined forest governance and established principles such as the Public Trust Doctrine and continuing mandamus. These developments position the judiciary as a crucial ecosystem governance instrument within India's sustainability framework.

From a commerce perspective, biodiversity and forests serve as significant sources of economic activity, particularly through non-timber forest products (NTFPs), medicinal plants, eco-tourism, and biodiversity-based trade. For many rural and tribal communities, these resources constitute an essential component of income and livelihood systems (TRIFED, 2021; PLFS, 2019). Despite this, biodiversity remains inadequately integrated into formal economic systems, and its potential as a commercial capital asset is yet to be fully realized.

This creates a critical paradox wherein regions rich in biodiversity often exhibit weaker health and livelihood indicators, reflecting a disconnect between ecological wealth and human development outcomes (NFHS-5, 2020). The persistence of this gap highlights the need for an integrated analytical framework that connects biodiversity, commerce, governance, and human welfare.

In this context, the present study assumes significance as it redefines biodiversity and forests as multidimensional natural capital assets, linking ecological sustainability with commerce, judicial governance, and human development. By adopting a multidisciplinary approach, the study bridges a critical gap between environmental and economic analysis, and contributes to policy discourse by proposing a framework for integrating biodiversity into sustainable development strategies aligned with global commitments such as the Sustainable Development Goals (SDGs) and the Convention on Biological Diversity (CBD).

Accordingly, the study aims to examine biodiversity and forests within the framework of natural capital, analyze the role of judicial interventions in environmental governance, and evaluate their implications for commerce and human development in India.

This study is significant as it redefines forests and biodiversity as natural capital assets that extend beyond ecological value to influence commerce, livelihoods, and human development. By integrating judicial interventions with economic and social indicators, the study highlights the role of the judiciary as an ecosystem governance instrument shaping conservation outcomes.

It further contributes by bridging a critical gap between environmental sustainability and economic analysis, demonstrating how biodiversity-based commerce-such as non-timber forest products and eco-tourism-can support sustainable development. The research offers both academic and policy relevance, positioning India's biodiversity governance model within a global discourse on sustainable development and natural capital valuation.

2. Review of Literature

The concept of biodiversity and forests as natural capital has been widely explored within the domain of ecological economics. Costanza *et al*. (1997) emphasized the economic valuation of ecosystem services, demonstrating that natural resources contribute significantly to global welfare and economic systems. Similarly, Daly (1996) argued for a sustainability-oriented economic framework that recognizes ecological limits while integrating development objectives. These foundational contributions establish biodiversity as both an ecological and economic asset.

From a human development perspective, Sen (1981, 1999) introduced the capability approach, linking access to resources with improvements in well-being and freedom. This framework is particularly relevant in forest-dependent regions, where biodiversity directly influences livelihoods, nutrition, and health outcomes. It highlights that ecological resources must be effectively translated into human capabilities to achieve meaningful development.

Global policy frameworks further reinforce this integrated perspective. The United Nations Environment Programme (UNEP, 2011) and the World Bank (2018) emphasize the importance of natural capital in achieving sustainable development through green economy models. These frameworks advocate the alignment of environmental conservation with economic growth, recognizing biodiversity as a critical component of long-term sustainability.

In the Indian context, studies on forest governance and community rights have highlighted both opportunities and challenges. Kohli and Menon (2016) examine the implementation of the Forest Rights Act (FRA), 2006, noting issues related to land rights, institutional conflicts, and policy execution. Reports by the Ministry of Tribal Affairs (2018) further emphasize the role of local communities in conservation, while also identifying gaps in benefit-sharing and governance mechanisms.

Judicial interventions represent a distinctive feature of India's environmental governance system. Rosencranz and Divan (2003) document the evolution of environmental law in India, highlighting the role of courts in expanding doctrines such as the Public Trust Doctrine and sustainable development principles. Landmark cases, including M.C. Mehta v. Union of India (1987) and T.N. Godavarman Thirumulpad v. Union of India (1996), illustrate how judicial activism has contributed to forest conservation and regulatory enforcement.

From a commerce perspective, biodiversity-based economic activities have gained increasing attention. Reports by TRIFED (2021) and data from PLFS (2019) indicate that non-timber forest products (NTFPs), medicinal plants, and eco-tourism play a significant role in supporting rural and tribal livelihoods. However, these activities remain largely informal and under-integrated into formal economic systems, limiting their potential for value addition and market expansion.

Despite the breadth of existing literature, a significant gap persists. Most studies examine biodiversity, governance, or economic aspects in isolation, with limited integration across these domains. In particular, the combined role of judicial governance, biodiversity-based commerce, and human development outcomes remains underexplored in the Indian context. Furthermore, the paradox of biodiversity-rich yet development-poor regions has not been sufficiently analyzed through a multidisciplinary framework.

The above review of literature clearly shows a research gap. Despite a substantial body of literature on biodiversity conservation, forest governance, and sustainable development, existing studies remain largely fragmented across disciplinary boundaries. Ecological research primarily focuses on conservation outcomes, legal studies emphasize judicial interventions, and economic analyses examine resource utilization and growth patterns. However, an integrated framework linking biodiversity as natural capital, judicial governance, and commerce-driven development remains insufficiently explored.

In the Indian context, while the role of the judiciary in environmental protection has been widely acknowledged, limited attention has been given to its implications for economic activities, livelihood systems, and human development outcomes. Similarly, studies on biodiversity-based commerce highlight its contribution to rural livelihoods but fail to adequately connect it with governance structures and policy frameworks.

Furthermore, the paradox of biodiversity-rich yet development-poor regions remains underexplored within a multidisciplinary analytical framework. This gap necessitates a comprehensive approach that integrates ecology, commerce, and governance to better understand sustainable development pathways in India.

3. Research Questions

An attempt has been made to find out the answers of the following questions:

1. How can biodiversity and forests be conceptualized as natural capital assets within the framework of sustainable development in India?
2. What role does the judiciary play as an ecosystem governance instrument in biodiversity conservation and forest management?
3. How do biodiversity-based economic activities contribute to livelihoods and human development outcomes?
4. Why do biodiversity-rich regions often exhibit lower human development indicators, and how can this paradox be addressed?
5. How can an integrated framework linking biodiversity, commerce, and governance inform sustainable development policies?

4. Research Objectives

Research objectives of this study are as follows:

1. To examine biodiversity and forests as natural capital assets in the context of sustainable development.
2. To analyze the role of judicial interventions in shaping environmental governance and conservation outcomes in India.
3. To assess the contribution of biodiversity-based economic activities to livelihoods and the rural economy.
4. To evaluate the relationship between biodiversity and human development indicators such as health and employment.
5. To develop an integrated framework linking ecology, commerce, and governance for sustainable development.

5. Hypothesis

Judicial interventions, when combined with biodiversity-based economic activities, positively influence conservation outcomes and contribute to sustainable development; however, in the absence of effective economic integration, biodiversity-rich regions continue to experience lower human development outcomes.

Judicial interventions and biodiversity-based economic activities do not significantly influence human development outcomes in forest-dependent regions.

6. Conceptual Framework

This study develops an integrated conceptual framework that positions biodiversity and forests as natural capital assets, linking ecological systems with economic activities, governance mechanisms, and human development outcomes.

At the foundation of the framework lies biodiversity and forest resources, which provide essential ecosystem services such as provisioning, regulating, and supporting functions. These ecological resources are conceptualized as commercially relevant assets, capable of generating livelihoods through non-timber forest products (NTFPs), eco-tourism, and biodiversity-based trade.

Judicial interventions, through constitutional provisions and environmental jurisprudence, function as ecosystem governance instruments, regulating access, conservation, and utilization of these resources. Landmark judicial principles such as the Public Trust Doctrine and sustainable development ensure that natural capital is preserved while allowing controlled economic use.

The interaction between biodiversity and governance structures shapes biodiversity-based commerce, influencing income generation, employment opportunities, and local economic systems. These economic outcomes, in turn, impact human development indicators, including health, livelihood security, and overall well-being. The framework thus establishes a dynamic and interdependent relationship where:

- Biodiversity and forests form the base of natural capital.
- Judicial governance regulates resource use and conservation.
- Commerce activities convert natural capital into economic value.
- Economic outcomes influence human development.
- Human development feeds into sustainable development goals.

This integrated approach highlights that sustainable development can only be achieved when ecological sustainability, economic growth, and human welfare are simultaneously addressed, aligning with global frameworks such as the Sustainable Development Goals (SDGs) and the Convention on Biological Diversity (CBD).

7. Conceptual Model

Biodiversity & Forests (Natural Capital)

Judicial Governance (SC/HC, Legal Doctrines)

Resource Regulation & Conservation

Commerce Activities
(NTFPs, Eco-tourism, Bio-trade, Green Economy)

Livelihood & Income Generation

Human Development Outcomes
(Health, Employment, Welfare)

Sustainable Development (SDGs / CBD Alignment)

8. Methodology

8·1 Research Design

The study adopts a descriptive and analytical research design, integrating ecological, economic, and legal dimensions of biodiversity and forest governance. It follows a multidisciplinary approach consistent with commerce-based environmental analysis.

8·2 Nature and Sources of Data

The study is based on secondary data collected from reliable and authoritative sources, including:

- India State of Forest Report (FSI, 2023),
- National Family Health Survey (NFHS-5, 2020),
- Periodic Labour Force Survey (PLFS, 2019),
- TRIFED Reports (2021),
- IUCN Red List (2023),
- Ministry of Environment, Forest and Climate Change (MoEFCC) reports,
- Ministry of Tribal Affairs reports, and
- Judicial case laws (Supreme Court and High Courts).

8·3 Justification for Secondary Data

Primary data collection in biodiversity and judicial studies is constrained by geographical dispersion, resource limitations, and accessibility issues. Therefore, secondary data provides a comprehensive, reliable, and policy-relevant basis for analysis, particularly when derived from government and international sources.

8·4 Analytical Tools and Techniques

The study employs the following analytical approaches:

- **Comparative Analysis:**
  Forest vs non-forest regions (health and livelihood indicators).
- **Trend Analysis:**
  Forest cover, biodiversity status, and carbon stock over time.
- **Economic Interpretation:**
  Assessment of biodiversity-based commerce (NTFPs, trade, eco-tourism).
- **Doctrinal Legal Analysis:**
  Examination of judicial decisions and environmental doctrines.

9. Results and Data Interpretation

The results of the study are presented across key thematic dimensions, including forest resources, biodiversity status, human development indicators, livelihood systems, judicial governance, and climate linkages. The analysis integrates ecological, economic, and policy perspectives to highlight the role of biodiversity as a natural capital asset within a sustainable development framework. Biodiversity in India functions not only as an ecological resource but also as a natural capital asset with significant economic and developmental implications.

9·1 Forest Cover Trends and Resource Quality

Table-1: Forest Cover Trends in India (2001-2023)

Year	Very Dense Forest	Moderately Dense Forest	Open Forest	Total Forest Cover (%)
2001	83,000	316,000	288,000	21.5
2011	84,000	310,000	297,000	21.7
2019	85,000	306,000	302,000	21.8
2023	85,400	304,000	305,000	21.9

Source: FSI, 2023.

The data indicate a marginal increase in total forest cover over time. However, dense forest categories have remained relatively stagnant, while open forests have increased, suggesting qualitative degradation of forest resources. From a commerce perspective, this decline in forest quality directly affects the productivity of non-timber forest products (NTFPs) and ecosystem services, thereby influencing rural incomes and economic sustainability. This trend highlights challenges in achieving **SDG 15 (Life on Land)** and its economic linkage with **SDG 8 (Decent Work and Economic Growth)**.

Beyond forest quantity, biodiversity indicators provide deeper insight into ecosystem health and sustainability.

9·2 Biodiversity Status and Species Vulnerability

Table-2: Threatened Species in India (IUCN Red List, 2023)

Category	Mammals	Birds	Amphibians	Medicinal Plants
Critically Endangered	20	17	36	45
Endangered	96	82	48	120
Vulnerable	150	97	55	210

The results reveal a significant number of species under threat, particularly medicinal plants that form the backbone of traditional healthcare and biodiversity-based trade.

The loss of biodiversity reduces the economic potential of bio-resources, affecting pharmaceutical value chains, traditional medicine systems, and export-oriented bio-commerce. This directly undermines SDG 3 (Good Health and Well-being) along with biodiversity conservation goals.

The implications of biodiversity loss extend beyond ecological degradation to human development outcomes.

9·3 Human Development Indicators in Forest Regions

Table-3: Health Indicators (Forest vs Non-Forest Regions)

Indicator	Forest Regions	Non-Forest Regions
Child Stunting (%)	41	30
Anemia (%)	58	45
Institutional Birth (%)	62	81
Clean Fuel Access (%)	22	65

Source: NFHS-5, 2020.

The data reveal that forest-dominated regions exhibit weaker health and development indicators compared to non-forest regions. This reflects a structural paradox where ecologically rich regions remain economically and socially deprived. From a commerce lens, this indicates underutilization of biodiversity as an income-generating and development-supporting asset. The findings highlight the need to integrate biodiversity with livelihood enhancement and public health strategies, contributing to SDG 3 and SDG 1 (No Poverty). Livelihood patterns further reinforce the economic significance of biodiversity.

9·4 Livelihood Dependence and Biodiversity-Based Commerce

Table-4: Income Composition in Forest-Dependent Communities

Income Source	% Contribution
Agriculture	30%
Wage Labour	25%
NTFPs	35%
Migration	10%

Source: PLFS, 2019; TRIFED, 2021.

The above results indicate that biodiversity-based resources contribute significantly to household income, with NTFPs accounting for approximately 35% of total income in forest-dependent communities.

This confirms that biodiversity functions as a commercial capital asset, supporting livelihoods and rural economies. However, the absence of structured markets, value addition, and formal trade integration limits its full economic potential. Strengthening biodiversity-based commerce can enhance employment and support SDG 8 and SDG 12 (Responsible Consumption and Production).

Governance mechanisms play a crucial role in regulating and shaping these interactions.

9·5 Judicial Governance and Environmental Regulation

Table-5: Major Judicial Interventions in Biodiversity Governance

Year	Case	Key Principle	Impact
1987	M.C. Mehta v. Union of India	Environmental protection	Pollution control
1996	Godavarman Case	Forest definition expanded	Forest governance
1997	Kamal Nath Case	Public Trust Doctrine	Resource protection
2011	Lafarge Case	Sustainable development	Regulated mining

The above analysis demonstrates that judicial interventions have played a significant role in shaping environmental governance in India.

Courts have acted as ecosystem governance instruments, ensuring conservation and regulating resource use. However, the integration of judicial decisions with economic policies and livelihood systems remains limited, indicating the need for a more balanced and inclusive governance framework.

Climate-related ecosystem services further extend the value of forest resources.

9·6 Carbon Stock and Climate Linkages

Table-6: Forest Carbon Stock in India

Year	Total Carbon Stock (Mt)
2001	14,000
2011	14,120
2019	14,180
2023	14,220

Source: FSI, 2023.

The data contained in the table above show a gradual increase in forest carbon stock, indicating the role of forests in climate mitigation.

While this contributes to **SDG 13 (Climate Action)**, the economic valuation of carbon services and integration into carbon markets remain underdeveloped. This represents an opportunity to align ecological conservation with green finance and global climate frameworks.

Integrated Analysis and Global Perspective: The results collectively demonstrate that biodiversity and forests in India function as a **multi-dimensional natural capital system**, influencing ecological stability, economic activities, and human development outcomes.

While India has achieved relative success in maintaining forest cover and strengthening judicial governance, biodiversity loss and human development disparities persist. This reflects a gap between conservation efforts and their translation into **economic and social benefits**.

From a global perspective, these findings align with the objectives of the Convention on **Biological Diversity (CBD)** and the **Sustainable Development Goals (SDGs)**. India's experience suggests that:

- Biodiversity conservation must be integrated with commerce and livelihood systems.
- Judicial frameworks can serve as **institutional mechanisms for sustainability governance**.
- Economic valuation of biodiversity is essential for achieving global sustainability targets.

Policy-Oriented Insight (Result-Based Recommendation): The results indicate that sustainable development can be achieved by:

- Integrating biodiversity into **formal economic systems and markets**.
- Strengthening value chains for **NTFPs and bio-resources**.
- Aligning judicial interventions with **livelihood and development policies**.
- Promoting green finance mechanisms such as **carbon markets and ecosystem valuation**.

It must be emphasized that the **biodiversity in India is not merely an ecological resource but a commercial and developmental asset, whose effective governance can bridge the gap between conservation and human welfare.**

The findings establish that **biodiversity in India is not merely an ecological resource but a strategic economic asset, and its effective governance through commerce, policy, and judiciary can bridge the gap between conservation and human development, offering a model for global sustainability frameworks**.

10. Findings of the Study and Discussion

This study positions biodiversity not merely as an environmental concern, but as a strategic economic and developmental resource, and highlights India's potential to lead a global transition towards integrated, commerce-driven, and governance-supported sustainability frameworks.

10·1 Forest Cover vs Quality

India shows marginal increase in forest cover; however, the stagnation of dense forests and rise in open forests indicate declining ecological quality and productivity.

10·2 Biodiversity Under Threat

A significant proportion of species, particularly medicinal plants, fall under threatened categories, reducing ecological resilience and bio-economic potential.

10·3 Development Paradox

Forest-rich regions exhibit comparatively lower health and livelihood indicators, reflecting a disconnect between ecological wealth and human development outcomes.

10·4 Biodiversity as Livelihood Asset:

Non-timber forest products (NTFPs) contribute substantially to household income, establishing biodiversity as a key commercial capital asset.

10·5 Underutilization of Economic Potential

Despite its importance, biodiversity-based commerce remains under-developed due to weak market integration, limited value addition, and institutional gaps.

10·6 Judicial Role in Governance:

Judicial interventions have strengthened environmental protection and function as effective ecosystem governance instruments, though their economic integration remains limited.

10·7 Carbon and Climate Potential

Forest carbon stock demonstrates climate mitigation potential; however, economic valuation and integration into carbon markets remain insufficient.

10·8 Lack of Integrated Framework

The absence of coordination between ecological conservation, economic systems, and governance frameworks limits the effectiveness of sustainable development efforts.

10·9 Global Relevance

India possesses strong ecological, institutional, and judicial foundations, with the potential to serve as a global model for biodiversity-based sustainable development aligned with SDGs and CBD frameworks.

Biodiversity in India remains an underutilized natural capital asset, whose effective integration with commerce, governance, and policy can bridge the gap between conservation and human development. This highlights the potential for integrating India's forest resources into global carbon markets and climate finance mechanisms.

11. Discussion

The findings of this study highlight the need to re-conceptualize biodiversity and forests not merely as ecological entities, but as integrated natural capital systems that simultaneously influence economic activity, governance structures, and human development outcomes.

11·1 From Conservation to Natural Capital Perspective

The results indicate that traditional conservation approaches, which focus primarily on protecting forest cover, are insufficient in addressing biodiversity degradation and socio-economic disparities. While India has achieved relative stability in forest cover (FSI, 2023), the stagnation of dense forests and the continued decline in biodiversity suggest that conservation policies must shift towards a natural capital framework, where ecological resources are evaluated in terms of both environmental and economic value (Costanza *et al*., 1997; World Bank, 2018). This aligns with global sustainability discourse, which emphasizes that biodiversity conservation must be linked with economic systems to ensure long-term viability.

11·2 Commerce-Biodiversity Link: Untapped Potential

The study demonstrates that biodiversity-based resources, particularly non-timber forest products (NTFPs), play a significant role in supporting rural livelihoods. However, the lack of structured markets, value addition, and institutional support limits their economic potential.

From a commerce perspective, this indicates that biodiversity remains an underutilized economic asset, despite its capacity to generate employment, income, and trade opportunities. Strengthening value chains, promoting eco-certification, and integrating biodiversity into formal markets can transform it into a driver of sustainable economic growth, contributing to SDG 8 (Decent Work and Economic Growth) and SDG 12 (Responsible Consumption and Production).

11·3 The Development Paradox: Rich Ecology, Poor Human Outcomes

One of the most significant findings is the paradox of biodiversity-rich yet development-poor regions, where communities dependent on forest resources exhibit weaker health and livelihood indicators (NFHS-5, 2020).

This paradox reflects a disconnect between ecological wealth and human development, supporting Sen's (1999) argument that access to resources does not automatically translate into improved capabilities and well-being.

Therefore, biodiversity conservation must be accompanied by targeted investments in health, education, and livelihood diversification, ensuring that ecological resources contribute directly to human development outcomes (SDG 3 and SDG 1).

11.4 Judiciary as an Ecosystem Governance Instrument

The study reinforces the role of the judiciary as a central pillar of environmental governance in India. Landmark judgments such as Godavarman and M.C. Mehta have expanded the scope of environmental protection and established principles such as the Public Trust Doctrine.

However, the findings suggest that while judicial interventions are effective in enforcing conservation, their integration with economic and social policies remains limited.

A more coordinated governance approach is required, where judicial decisions are complemented by policy frameworks that address livelihood concerns and economic sustainability.

11·5 Climate and Green Finance Opportunities

The gradual increase in forest carbon stock highlights the role of forests in climate mitigation. However, the economic valuation of carbon services remains underdeveloped in India.

Integrating forests into carbon markets, green finance mechanisms, and ecosystem valuation frameworks can enhance their economic value while contributing to SDG 13 (Climate Action).

This approach aligns with global climate governance frameworks and offers opportunities for linking biodiversity conservation with financial incentives.

11·6 India in the Global Biodiversity Framework

From a global perspective, the findings position India as a potential model for integrating biodiversity, commerce, and governance.

India's strengths include:

- Strong judicial framework for environmental protection.
- Rich biodiversity resources.
- Established community-based livelihood systems.

However, to fully align with the Convention on Biological Diversity (CBD) and SDG targets, India must:

- Strengthen economic valuation of biodiversity.
- Integrate conservation with development policies.
- Enhance institutional coordination across governance levels.

The discussion establishes that sustainable development requires a triangular integration:

- Ecology (Biodiversity Conservation).
- Economy (Commerce and Livelihoods).
- Governance (Judicial and Policy Frameworks).

The absence of any one dimension leads to imbalance, as reflected in the persistence of biodiversity loss and human development gaps. The absence of structured value chains and formal market access constrains the transformation of biodiversity into scalable economic capital. This indicates that biodiversity is not being effectively monetized or integrated into local economic systems.

The alignment between results and findings indicates that biodiversity in India operates as an underutilized natural capital system, where ecological resources, economic activities, and governance mechanisms remain insufficiently integrated. The persistence of development disparities in biodiversity-rich regions reflects the need for a commerce-driven and policy-aligned approach, supported by judicial governance. This integrated perspective reinforces the relevance of the study in both national and global sustainability contexts.

The study argues that biodiversity conservation must evolve from a protection-oriented approach to a commerce-integrated governance framework, where ecological sustainability, economic development, and human welfare are pursued simultaneously.

12. Conclusion

The study establishes that biodiversity and forests in India must be understood as multi-dimensional natural capital assets, influencing ecological sustainability, economic activities, and human development outcomes simultaneously. While India has achieved relative progress in maintaining forest cover and strengthening judicial governance, significant challenges remain in terms of biodiversity loss, resource degradation, and socio-economic disparities in forest-dependent regions.

The findings highlight a critical disconnect between ecological wealth and human development, where biodiversity-rich regions continue to experience lower levels of health, income, and access to basic services. This indicates that conservation efforts, when not integrated with economic and social policies, fail to deliver inclusive development outcomes.

The study concludes that sustainable development requires a holistic and integrated framework, where biodiversity conservation is aligned with commerce, governance, and human development.

13. Policy Recommendations

Based on the findings, the following policy recommendations are proposed:

13·1 Integration of Biodiversity into Economic Frameworks

- Recognize biodiversity as a formal economic asset in national accounting systems
- Promote valuation of ecosystem services

13·2 Strengthening Biodiversity-Based Commerce

- Develop structured markets for NTFPs, medicinal plants, and eco-tourism
- Encourage value addition, branding, and export promotion
- Support rural entrepreneurship and tribal cooperatives

13·3 Linking Conservation with Human Development

- Integrate biodiversity policies with health, nutrition, and livelihood programs
- Improve access to basic services in forest regions

13·4 Judicial-Policy Coordination

- Align judicial interventions with economic and development policies
- Strengthen implementation mechanisms at local and regional levels

13·5 Promotion of Green Finance and Carbon Markets

- Develop frameworks for carbon credit systems and ecosystem valuation
- Encourage investment in restoration and conservation projects

13·6 Global Alignment and SDG Integration

- Align national policies with CBD targets and SDGs
- Position India as a global model for biodiversity governance and sustainable commerce

14. Contribution of the Study

This study contributes theoretically by extending the concept of biodiversity as natural capital through the integration of ecological, economic, and governance perspectives. Empirically, it presents a multidimensional analysis combining forest data, biodiversity indicators, human development metrics, and judicial case studies. Methodologically, the study adopts an interdisciplinary approach linking commerce, ecology, and law, an area relatively underexplored in existing literature. It also offers policy-oriented insights for integrating biodiversity into economic planning, governance frameworks, and sustainable development strategies.

15. Limitations of the Study

The study is subject to following methodological and data-related limitations that may affect the depth, regional coverage, and empirical comprehensiveness of the analysis:

- The study is based primarily on secondary data, which may limit micro-level insights.
- Regional variations within India may not be fully captured.
- Judicial impact assessment is largely qualitative and interpretative.
- Lack of primary field data on community-level biodiversity utilization.

16. Scope for Future Research

The following areas offer important directions for advancing research on biodiversity conservation through interdisciplinary, comparative, technological, and policy-oriented approaches:

- Conduct primary field-based studies on biodiversity-dependent communities.
- Explore state-level comparative analysis of biodiversity and development.
- Examine the role of private sector and green finance mechanisms in biodiversity conservation.
- Study global comparative models for integrating biodiversity with commerce and governance.
- Analyze the impact of digital and technological interventions (e.g., remote sensing, AI) in biodiversity management.

The above areas indicate significant opportunities for interdisciplinary and policy-oriented research to strengthen the integration of biodiversity conservation with sustainable development, governance, and technological innovation.

References

Costanza, R., d'Arge, R., de Groot, R., Farber, S., Grasso, M., Hannon, B., … van den Belt, M., "The value of the world's ecosystem services and natural capital", ***Nature***, 387(6630), 1997, 253-260.

Daly, H. E., ***Beyond growth: The economics of sustainable development***, Boston: Beacon Press, 1996.

Forest Survey of India, ***India State of Forest Report 2023***, New Delhi: MoEFCC, 2023.

International Union for Conservation of nature (IUCN), ***The IUCN Red List of Threatened Species*** (Version 2023-1), Cambridge: IUCN UK Office, 2023.

Kohli, K., & Menon, M., "Eleven Years of the FRA", ***EPW***, 51(17), 2016.

Lafarge Umiam Mining v. Union of India, (2011) 7 SCC 338.

M.C. Mehta v. Union of India, AIR 1987 SC 965.

Ministry of Health and Family Welfare, ***NFHS-5, India Fact Sheet 2019-21***, Ministry of Health and Family Welfare, Government of India, 2020.

Ministry of Tribal Affairs, ***Status Report on FRA Implementation***, Ministry of Tribal Affairs, Government of India, 2018.

National Statistical Office, Periodic Labour Force Survey (PLFS), ***Annual Report 2018-19***, Ministry of Statistics and Programme Implementation, Government of India, 2019.

Rosencranz, A., & Divan, S., ***Environmental law and Policy in India***, New Delhi: Oxford University Press, 2003.

Sen, A., ***Poverty and Famines: An Essay on Entitlement and Deprivation***, New York: Oxford University Press, 1981.

Sen, A., ***Development as Freedom***, Oxford: Oxford University Press, 1999.

T.N. Godavarman v. Union of India, (1996) 9 SCC 632.

Tribal Cooperative Marketing Development Federation of India (TRIFED), ***Annual Report 2020-21***, Ministry of Tribal Affairs, Government of India, 2021.

United Nations Development Programme, ***Human Development Report 2020***, New York: UNDP, 2020.

United Nations Environment Programme, ***Towards a green economy: Pathways to sustainable development and poverty eradication***, New York:UNEP, 2011.

World Bank, ***The Changing Wealth of Nations 2018: Building a Sustainable Future***, Washington, DC: World Bank, 2018.

★

Article Received on May 10, 2026; Accepted on June 02, 2026

JOURNAL OF NATIONAL DEVELOPMENT

PEER REVIEWED, INDEXED & REFEREED Bi-ANNUAL INTERNATIONAL JOURNAL

ISSN 0972-8309

https://www.jndmeerut.org

[Vol. 39, No. 1 (Summer), 2026]

https://doi.org/10.62047/JND.2026.06.30.130

Artificial Intelligence for Rural Development in India: A Sociological Study

Maruthi M

Principal, Shri K M Mamani Government First Grade College, Savadatti, Dist: Belagavi 591126, Karnataka (India) E-mail:<mmaruthi1@gmail.com>

Abstract

Emergence of Artificial Intelligence in rural India is a boon to rural transformation. Indian rural community potential to adopt AI in their traditional social structure such as agriculture and allied occupations, community organizations, health and education etc. The modern AI tools provide enough awareness about social life and rural development. The AI technology is helpful in creation of great consciousness among rural masses to achieve inclusive growth and sustainable development for better tomorrow. The establishment of AI in rural areas faces basic challenges to be addressed like poor infrastructure and connectivity, low digital literacy, scarcity of resources and high operational cost at rural side. The hurdles can be addressed through governmental and non-governmental interventions and initiations in rural atmosphere. Improvement in connectivity and digital skilling actions will be crucial harness for AI's full potential in bridging socio-economic gaps and empowering rural communities. These technologies can be helpful in reducing socio-economic disparities and optimize infrastructure. The prospective appearance of AI in rural communities is promising with efficient governance and community participation. Artificial intelligence is a medium for rural transformation, autonomy and prosperity in village India.

Keywords

AI, Village, Development, Community, People, Government.

Centre For Studies of National Development, Meerut

Editorial Office : D-59, Shastri Nagar, Meerut - 250 004 (INDIA)

Ph. : 0121-2763765, +91-9997771669, +91-9412200765

10

Artificial Intelligence for Rural Development in India: A Sociological Study

1. Introduction

Rural population constitutes more than 65% of total Indian population. Agriculture and allied occupations are still maintained their dominance over income source in rural India. Artificial Intelligence (AI) emerged as boon to rural people for rapidly transformation on par with their urban counterparts. The systematic widespread and implementation of AI contributes to improve the scientific agriculture, healthcare system, quality education and good governance. Mass population lives in villages, AI is being established to function as a means to bridge the service gaps, often operating in local languages and even on low bandwidth AI can function on smart phones.

Villages like Adavi Srirampur of Telangana state and Satnavri of Maharashtra state are the best examples for undergoing smart transformations. Scientific farming, ICT-based pedagogy and smart governance serving as models for the rest of India. Artificial intelligence has complete potential to provide solutions for multiple challenges and classic hurdles in vast rural areas.

In the globalizing world challenges like climate, war, resource management, economic crises the AI provides ample opportunities to the livelihoods in the communities. AI ensures responsible for rural development and preservation of traditional knowledge in a democratic way and it also protect and publish cultural diversity and produce power for sustainable rural enterprises and fair opportunities to rural masses.

The growing penetration of AI in rural India necessitates a systematic examination of its developmental role, socio-economic significance, and long-term implications for village communities. Understanding how AI influences and contributes to rural society is essential for assessing its contribution to rural development and transformation. At the same time, challenges such as deficit of digital infrastructure, digital illiteracy, communication barriers, data privacy concerns, loss of indigenous skills and knowledge and legal as well as socio-economic and ethical issues require careful attention. Therefore, an in-depth study of the opportunities, constraints, and future prospects of AI in rural India is crucial for formulating evidence-based policy recommendations and designing inclusive AI-driven development strategies that ensure equitable and sustainable rural progress. The present study is an humble attempt in this direction.

2. Objectives of the Study

Objectives of the study are as follows:

1. To understand the growth of AI in rural India,
2. To explore the socio-economic importance of AI in village India.
3. To find out the problems and prospective of AI with respect to rural communities.
4. To provide the necessary suggestions for policy implications in AI future developmental plans.

3. Methodology

The present study is based entirely on secondary sources of data. Relevant information has been collected from a wide range of published and unpublished sources, including books, research articles, theses and dissertations, peer-reviewed journals, government surveys, newspapers, policy documents, reports of national and international organizations, and authentic internet-based resources. The collected literature was carefully reviewed, classified, and analyzed to understand the role of Artificial Intelligence in rural development in India. Particular attention was given to the socio-economic implications, opportunities, challenges, and future prospects of AI applications in rural areas. The analysis of secondary data facilitated a comprehensive understanding of the subject and enabled the formulation of conclusions and policy suggestions regarding the effective integration of Artificial Intelligence into rural development strategies.

4. Growth of AI in Rural India

Artificial Intelligence emerged as one of the fundamental tools which promise inclusive for rural development in India. The rural communities, economy, healthcare system and agriculture production are transforming through AI tools. It aims to fill the digital gaps and create support system for rural entrepreneurs. The BHASHINI AI system gives real time advice to farmers about agriculture and gives remote support to diagnose ground level problems in regional language. The rapid spread of AI advancement created a digital revolution in the world particularly in the developing countries like India. In rural India AI is a powerful weapon to tackle challenges related to society, economy, health, education, agriculture and governance. The AI based platform provides system based solutions for local problems in remote areas. The aim of AI is to provide good governance to rural people and enables them to access better facilities like health education and other basic necessities.

5. Socio-economic Importance of AI in Village India

AI emerged as a powerful tool in transformation of Indian rural social system; it aims to achieve sustainable development and good governance for rural life. In India AI is helping in streamlining administration for about 585000 villages. The AI technology doesn't make any difference between rural and urban life and bridges the gaps between rural-urban areas. With the help of AI the village life is improved in terms of agriculture and allied works, health and education. Automation of administrative system made routine work easier and leads to good and efficient governance in rural India. Satellite based weather forecast, price comparison and disease management awareness created among farmers through various AI channels like electronic and social media. The information technology empowered marginalized people to access information and governmental services in rural structure. Sustainable development depends upon the resource management in the rural area AI plays vital role in adoption of resource management skills and digital techniques for smart and sustainable development. AI technology bring better opportunities to access education, income ,health and information which optimize individual ability to produce extra torque for the community and better socio-economic conditions which leads to overall development in rural India.

6. Challenges and Perspectives of AI in Rural India

The extensive adoption of AI in India faces severe challenges especially in rural areas. Basic and fundamental requirement for AI is digital infrastructure which is extremely shortage in villages. Communication barriers like language, low digital literacy are responsible for AI problems in rural India. It prevents rural community to access AI benefits such as AI based agriculture information, systematic healthcare and good governance etc.

Major challenges for streaming AI in rural areas in India are as follows:

- **Deficit of digital infrastructure:** The rural India is suffering from basic infrastructure like food, shelter, health and education therefore the basic infrastructure needs to be yet addressed. AI is a promising tool to improve rural life and infrastructure. Deficit in digital infrastructure like internet is big issue in rural area especially in remote areas.
- **Digital complexity:** A large proportion of village population stays in remote areas and face digital isolation in accessing AI skills. The rural people are unable to access difficulties in AI interface and decode digital data management system.
- **Communication barriers:** The rural dialect system does not match with AI system. The AI technology supports only the few languages like English and this creates communication barrier among rural masses. The local understanding range is not reachable to the level of rural masses. The gap between digital knowledge and understanding ability of rural people is responsible for the problems of AI system.
- **Proper data not available in villages:** In the context of rural atmosphere the available data is not correctly maintained. Often it is seen in villages that the data is incomplete or unavailable and fragmented which leads to bias and inaccurate predictions. The AI requires huge amount of local information for organized functioning.

- **Expensive:** Adoption and maintenance of AI system is cost burdening as compared to other systems. The rural administration and individuals like farmers and other sector people face a lot of budgetary problems. Resource management is challenging for both organizations and individuals in rural areas.
- **Manual labor force at risk:** The implementation of AI technology introduce automated machines to carryout rural activities such as agriculture. In the field of agricultural process huge amount of manual labor is engaged due to AI based agriculture may create job scarcity for manual labors in village areas. The advanced AI technology threatens livelihood of rurak workforce who are unskilled and lose their jobs.
- **Loss of indigenous skills and knowledge:** The AI technology not only minimizes indigenous rural practices but also attack on traditional community based knowledge system which cannot be acceptable.
- **Legal issues:** There is a need of implementation of suitable law relating to AI in India. In present legal framework there is no dedicated legal base for AI governing system. The Digital Personal Data Protection Act-2023 is a base structure for AI and facilitates fundamental framework to it but it is not helpful in complex issues like algorithmic responsibility, deep fakes, patent, infringement and computerized decision making.
- **Socio-economic and ethical issues:** The computerized system poses an extensive risk to Indian traditional rural economy particularly daily wages labor sector. The BPO services leads to rural urban divide and address the severe ecological and liveliness costs linked with administration of AI data centers in rising countries.

7. Suggestions for Policy Implications in AI Future Developmental Plans

To conquer these hurdles the government of India has started the India AI Mission, which aims to set up tens of thousands of GPUs through subsidized public-cloud infrastructure, set up sectored data banks and fund domestic AI research and development. Classrooms needs to be modernized through personal learning skills, importance for safety and cleanliness, boosting public service system by faster data driven governance which transforms lives and shapes nation’s development in the fields of socio-economic background. Some of the most importance suggestions are as follows:

- **Economic and social:** AI has significant potential to lead to economic growth fetch automation, making things smarter, quicker and cost effective and bringing savings and improved competence. There is a need to ensure that the fiscal profits of AI are largely shared at the level of the society and that probable pessimistic implications are effectively addressed.

- **Safety, security and Privacy:** AI also has implications for cyber security on the one hand and on the other there are cyber security risks specific to AI systems. As AI in increasingly embedded in critical systems, they need to be protected to probable cyber risks.AI applications need to ensure the integrity of the information they employ, as well as defend confidentiality and secrecy.
- **Ethics:** The risk of bias in decisions made by AI technology is one such concern of AI problems. One of the way of tackling some of these concerns is to combine ethical training for AI professionals with the development of practical ways for designing AI software in a way that they can avoid such risks.
- **Development:** The Government to actively support research and development in the field of AI for inclusive innovations and to rise related funding. Government funded research especially in the fields that are less likely for the industry to address such a successful ways for human AI collaboration understanding the ethical, legal and societal implications of AI.
- **Intellectual property rights:** Intellectual property rights issues to be tackled by the government side for a balanced approach to Intellectual property rights when applied to hardware and software values and must be protect and foster innovation. The government must support the implementation of open AI resources.
- **Legal:** The AI related legal challenges concerning safety, privacy and data protection and ethics call for new legal and regulatory frameworks which should be refine in India. For time being it is the present law seen as the most suitable approach considering regulatory approaches towards AI but attention should be paid for innovation and progress in coming days.
- **International cooperation:** The strategic implications of AI attracted the attention of international organizations such as the United Nations, G7 and other such organizations. Government need to increasingly believe that AI would benefit from global collaboration in promoting research and development and identifying proper responses for associated challenges.

8. Conclusion

The AI technology has seen considerable advances over the past few years in the fields of automobiles, construction, medicines, and robotics and education systems. These advances are expected to have implications in socio-economic sectors and government also increasingly allowing them in both rural and urban context. Successful AI prospect expansion plans must balance innovation with safety through policies addressing ethics, finances and good governance. Key strategic implementations should comprise digital literacy, trainings, data management, transparency, investment in AI ready workforces and frameworks for liability across the AI lifecycle. Furthermore, the effective integration of AI into rural development initiatives can enhance productivity, improve service delivery, and support evidence-based decision-making at the grassroots level. However, ensuring equitable access to AI technologies and bridging the digital divide remain essential prerequisites for achieving inclusive and sustainable rural transformation.

References

Bannagare, Manisha Bharatram, Ankita Vijayrao Dive, and Swati Padmakar Akhare, "A Critical Analysis of Artificial Intelligence's Impact on Rural Societies", ***International Journal of Innovative Research in Technology (IJIRT)***, 11(9), 2025, 1719-1720.

Cowie, Paul, Leanne Townsend, and Koen Salemink, "Smart Rural Futures: Will Rural Areas Be Left Behind in the 4th Industrial Revolution?", ***Journal of Rural Studies***, 79 (October), 2020, 169–176.

Department of Revenue, ***Report of the Comptroller and Auditor General of India, 2016***. New Delhi: Department of Revenue – Direct Taxes, Govt. of India, 2016. Accessed November 13, 2017.

http://ncrb.gov.in/statpublications/psi/Prison2015/Full/PSI2015- 18-11-2016.pdf.

https://rdpr.karnataka.gov.in

https://www.dord.gov.in

https://www.rural.gov.in

Sarangi, Smruti Smaraki, and Gyanendra Singha, "A Survey on Impact of AI and Social Media for Rural Development", ***International Journal of Computer Sciences and Engineering***, 7 (Special Issue 11), 2019, 64–68.

National Crime Record Bureau, ***Prison Statistics India 2015***, New Delhi: NCRB, Ministry of Home Affairs, Govt. of India, 2016. Accessed October 10, 2017.

NITI Aayog, Government of India, ***National Strategy for Artificial Intelligence***. (2018). Accessed October 6, 2018, http://niti.gov.in/writereaddata/ files/document_ publication/ NationalStrategyfor-AI-Discussion-Paper.pdf.

www.cag.gov.in.

★

Article Received on May 26, 2026; Accepted on June 10, 2026

JOURNAL OF NATIONAL DEVELOPMENT

PEER REVIEWED, INDEXED & REFEREED Bi-ANNUAL INTERNATIONAL JOURNAL

ISSN 0972-8309

https://www.jndmeerut.org

[Vol. 39, No. 1 (Summer), 2026]

https://doi.org/10.62047/JND.2026.06.30.137

Relations between The Sikh Gurus and Mughal Emperors: From Guru Nanak to Guru Hargobind

Vighnesh Kumar[1] & *Manpreet Cour*[2]

[1]Professor, Department of History, Chaudhary Charan Singh University, Meerut, Uttar Pradesh (India) E-mail:<vighneshkmr@gmail.com>

[2]SRF, Department of History, Chaudhary Charan Singh University, Meerut, Uttar Pradesh (India)

Abstract

This article examines the changing nature of relations between the Sikh Gurus and the Mughal emperors from Guru Nanak to Guru Hargobind. Drawing upon historical sources, it explores the political, religious, and social factors that shaped Sikh–Mughal interactions during the sixteenth and early seventeenth centuries. The study finds that while Guru Nanak criticized Babur's invasions and their impact on the people, direct engagement between the Sikh Gurus and the Mughal rulers became more visible during the reign of Akbar. The period of Guru Amar Das and Guru Ram Das was characterized by cordial relations, imperial tolerance, and the uninterrupted growth of Sikh institutions. However, relations deteriorated under Jahangir due to the increasing influence of Guru Arjun Dev and his association with Prince Khusrau, culminating in the Guru's martyrdom in 1606. The article argues that this event marked a decisive turning point in Sikh–Mughal relations. In response, Guru Hargobind adopted a policy of self-defence through the doctrine of Miri and Piri, the establishment of the Akal Takht, and the organization of an armed force. Supported by the people of Punjab, he successfully resisted Mughal authority in several battles. The study concludes that Sikh–Mughal relations evolved from cooperation and mutual respect to conflict and resistance, laying the foundation for the emergence of the Sikh community as an organized religious, social, and military force in Punjab.

Keywords

Goindwal, Masand System, Amritsar, Taran Taran, Kartarpur, Harmandir Sahib, Adi Granth, Akal Takht, Tilak, Miri, Piri.

Centre For Studies of National Development, Meerut

Editorial Office : D-59, Shastri Nagar, Meerut - 250 004 (INDIA)

Ph. : 0121-2763765, +91-9997771669, +91-9412200765

11

Relations between The Sikh Gurus and Mughal Emperors: From Guru Nanak to Guru Hargobind

The Sikh Gurus, beginning with Guru Nanak[1], had an understanding of the Turks, the foreign invaders. Babur is mentioned in the verses composed by Guru Nanak Dev. Guru Nanak refers to Babur in one of his famous stanzas as follows:[2]

"Khurasan khasmana kia, Hindustan daraya;

Aape dos na dei karta, jam kar Mughal chadhaya.

Eti maar pai kurlane, tain ki dard na aaya."

After the First Battle of Panipat[3] (April 21, 1526) and then the Battle of Khanwa[4] (March 17, 1526), Babur became the ruler of north India. Although the dynasty he founded was of Turko-Mongol origin, but it later came to be popularly known as the Mughal dynasty. After Babur's death on December 30, 1530[5], his eldest son, Humayun, succeeded him. Emperor, Humayun was decisively defeated by Sher Khan Suri in the Battle of Bilgram (Kanauj) on May 17, 1540.[6] Sher Shah ousted Humayun from power and ascended the throne, establishing the Sur Empire of the Afghans.

Humayun fled to Persia (Iran) after his defeat and finally became the Shia. With the support of the Safavid ruler Shah Tahmasp,[7] he returned to India and, after defeating the successors of the Sur dynasty, re-established Mughal rule. In 1555, following his victory Humayun recaptured Delhi and thus once again reached Delhi on July 20, 1555. He died on January 26, 1556 in Sher Mandal in the Purana Qila (Old Fort) at Delhi.[8]

There is little direct historical evidence regarding Humayun's relations with the Sikh Gurus. However, Sikh traditions mention an encounter between Humayun and Guru Angad Dev[9] after Humayun's defeat by Sher Khan Suri. According to these accounts, Humayun sought the Guru's blessings, and Guru Angad had advised him on humility, patience, and righteous conduct.[10]

Its first mention is found when Emperor Akbar assigns a land grant to Bibi Bhani, the daughter of Amardas, the third Guru; who was married with Guru Ram das, the fourth Guru. The place is still of high religious importance and is none but Harmandir Sahib or Swarn Mandir at Amritsar.

Guru Arjun was the fifth Guru of the Sikhs.[11] He was born on 15 April, 1563 at Goindwal in Punjab.[12] From his childhood, he was known for his calm temperament, humility[13], and love for knowledge.[14] Guru Arjun Dev played a crucial role in giving Sikhism a more organized structure.

During his Guruship, Guru Arjun Dev travelled among the Sikh congregations in Punjab[15] and established the *Masand* system[16] for collecting the one-tenth of their income from the Sikh followers. The Masands were appointed to spread Sikh teachings and collect offerings from the followers.[17] Through this arrangement, a regular source of income was created and ensured for the Sikh community.[18] The funds collected through that system strengthened the resources of the Sikh headquarters at Amritsar and contributed to the development of towns such as Tarn Taran and Kartarpur.[19] He also completed the construction of the Harmandir Sahib in the centre of the sacred tank at Amritsar on the land assigned to Bibi Bhani by Emperor Akbar.[20]

One of the most significant achievements of Guru Arjun Dev was the compilation of the *Adi Granth*. In 1604, he successfully collected and edited the hymns of the previous Gurus along with those of fifteen other saints including Kabirdas, Ravidas and Namdev.[21] *The Adi Granth* was then ceremonially installed in the Harmandir Sahib.[22]

This Guru enjoyed immense respect among the people, who regarded him as their spiritual guide. He encouraged his followers to engage in horse trading,[23] which was profitable as well as helpful to develop horsemanship among them. He further promoted physical activities such as wrestling.

During the reign of Emperor Akbar, the influence of the orthodox Muslim scholar Sheikh Ahmad Sirhindi[24] remained limited because Akbar followed a policy of tolerance. However, the situation changed after Akbar's death in 1605. Prince Salim ascended the throne as Emperor Jahangir.

Soon after his accession, Jahangir faced the rebellion of his son, Khusrau Mirza.[25] Khusrau fled from Agra and moved towards Lahore with a small force. Eventually, he was defeated and captured at Bhairowal.[26] His rebellion lasted only three weeks, from 6 April to 27 April 1606. Regarding Khusrau, Dr. Beni Prasad observes:[27]

> "With all personal charm, natural talents, fine education, and blamelessly he was an immature youth of fiery temper and weak judgement............... just the type of the mind, which join with the advantage high station and popularly, forms the most convenient for intrigue and conspiracy."

Jahangir himself described the suppression of the rebellion in the following words:[28]

> "Before the defeat of Khusru, an order had been issued to all the *jagirdars*, road keepers, and the ferrymen in the Punjab informing them of what had happened, and warning them to be careful. On 3rd Muharram 1015 A.H. Khusru was brought into my presence in the garden of Mirza Kamran with his hands bound and a chain on his leg and he was led from the left side according to the rule of Chengiz Khan... I attributed my success gained in this expedition to Sheikh Farid and I dignified him with the title of Murtaza Khan. To

strengthen and confirm my authority, I ordered that a row of stakes should be set up from the garden to the city and that the rebels should be impaled thereon, and thus receive their deserts in this most excruciating punishment."

When the rebel Prince Khusrau passed through Amritsar, Guru Arjun Dev received him and blessed him in the manner of a saint. He also applied a ceremonial mark *[Tilak]* on his forehead. Jahangir interpreted this act as support for the rebellion and became highly displeased.[29] Consequently, he imposed a fine of two to two and a half lakh rupees on the Guru.[30] Guru Arjun Dev refused to pay the fine, arguing that fines were imposed on criminals, whereas he had committed no offence.[31] He maintained that he had merely extended humanitarian assistance to the grandson of Emperor Akbar and had not supported his rebellion.[32]

Jahangir was not satisfied with this explanation.[33] As Guru Arjun Dev refused to pay the fine, he was arrested by the Governor of Lahore and subjected to severe torture.[34] On 30 May 1606, he was executed at Lahore on the orders of Jahangir.[35] His sacred body was consigned to the waters of the Ravi River.[36] This event is regarded as the first martyrdom in Sikh history[37] and marked a turning point in the relations between the Sikh Gurus and the Mughal empire.

Guru Hargobind was the sixth Guru of the Sikhs. He was born on 19 June, 1595 at Goindwal in Punjab to Guru Arjun Dev and Mata Ganga.[38] Following the martyrdom of his father in 1606, he assumed the Guruship at the age of eleven. Guru Hargobind introduced a new dimension to Sikhism by combining spiritual authority with temporal power. He propounded the doctrine of *Miri* (temporal authority) and *Piri* (spiritual authority) and encouraged Sikhs to develop military skills alongside religious devotion.[39] He inspired the Sikh community to bear arms and organized a military force for its protection.[40] He also established the Akal Takht, which later became the centre of Sikh religious and political authority.[41]

Before his death, Guru Arjun Dev instructed that no mourning should be observed after his passing[42] and that the Sikhs should prepare themselves militarily.[43] Guru Hargobind faithfully followed these instructions. Instead of observing the customary mourning ceremonies, he arranged the recitation of the *Adi Granth*[44] accompanied by musical instruments. During the ceremony of succession, he declared:[45]

"The sword-belt shall be my Seli and the plume shall be my *Dastar*."

Thereafter, he wore two swords simultaneously, naming them *Piri* (spiritual authority) and *Miri* (temporal authority). This marked the beginning of the militarization of the Sikh community in Punjab. During the same period, the orthodox Muslim scholar Sheikh Ahmad Sirhindi openly advocated the destruction of the Sikh community and its conversion to Islam.[46]

Guru Hargobind constructed a raised platform in the centre of the Amrit Sarovar and named it the Akal Takht.[47] He also fortified the town surrounding the sacred tank and named the fortification Lohgarh.[48] Owing to repeated military confrontations with the Mughal authorities, he was eventually compelled to leave Amritsar and shift to the more secure settlement of Kiratpur in the Shivalik hills.[49]

Battle of Amritsar (1628)[50]

The first major conflict between Guru Hargobind and the Mughal Empire took place at Amritsar in 1628. The Mughal commander Abdul Khan launched an attack on Amritsar. Although the Sikh forces were smaller in number, they fought with great courage under the leadership of Guru Hargobind. Baba Buddha, Bhai Jodha, and other prominent Sikh warriors played a decisive role in the battle. Abdul Khan was killed, and the Mughal forces suffered heavy losses. The battle ended in a significant victory for the Sikhs.

Battle of Himmatpur (1629)[51]

In 1629, another conflict took place at Himmatpur. Guru Hargobind had earlier secured the release of fifty-two Hindu rulers from the Gwalior Fort. This act was viewed unfavourably by the Mughal authorities, who considered it a challenge to their prestige. Consequently, an attack was launched under the leadership of Lala Beg. The Sikhs adopted guerrilla warfare tactics and successfully resisted the Mughal advance. Lala Beg was defeated, and the Mughal forces were compelled to retreat.

Battle of Ruhila, Haryana (1631)[52]

The third major battle occurred at Ruhila in present-day Haryana in 1631. Emperor Shah Jahan dispatched a large army under Mukhlis Khan to suppress the Sikhs. The Sikh forces displayed remarkable courage, discipline, and unity. During the course of the battle, Mukhlis Khan was killed, and the Mughal army suffered a decisive defeat. The victory further enhanced the military reputation of Guru Hargobind and the Sikh community.

Battle of Goha/Kirat (1634)[53]

The fourth major conflict took place at Goha (Kirat) in 1634. Guru Hargobind had developed Kiratpur into an important religious and social centre. The growing popularity and influence of the Guru alarmed the Mughal authorities, who launched another military campaign against him. Guru Hargobind adopted effective guerrilla tactics and received considerable support from the local Sikh population. The battle was fought across hilly and forested terrain, where the Sikhs had successfully resisted the Mughal forces and had preserved their position.

The leadership of Guru Hargobind marked a decisive transformation in Sikh-Mughal relations. The martyrdom of Guru Arjun Dev had convinced the Sikh community of the necessity of self-defence. Through the doctrine of *Miri* and *Piri*, the establishment of the Akal Takht, the construction of Lohgarh, and the organization of an armed force, Guru Hargobind laid down the foundations of Sikh military tradition. The four battles fought during his Guruship demonstrated the growing strength of the Sikhs and signalled the transition of Sikhism from a purely spiritual movement to a community prepared to defend its religious and social rights against Mughal opposition.

Conclusion

The relations between the Sikh Gurus and the Mughal emperors underwent significant changes from the time of Guru Nanak to Guru Hargobind. During the reign of Emperor Akbar, relations remained largely cordial and cooperative. Guru Amar Das and Guru Ram Das were able to expand Sikh institutions and promote social and religious reforms without interference from the Mughal state. Akbar's meetings with the Sikh Gurus and his favourable attitude towards the Sikh community reflected a period of mutual respect and religious tolerance.

However, the situation changed after the accession of Emperor Jahangir. The growing influence of Guru Arjun Dev, the expansion of Sikh institutions, and his interaction with Prince Khusrau created suspicion in the Mughal court. Jahangir regarded the Guru's actions as support for rebellion, which ultimately resulted in Guru Arjun Dev's arrest, torture, and martyrdom in 1606. This event marked the first martyrdom in Sikh history and became a turning point in Sikh-Mughal relations.

The martyrdom of Guru Arjun Dev profoundly influenced Guru Hargobind, who adopted a policy of self-defence and military preparedness. Through the doctrine of *Miri* and *Piri*, the establishment of the Akal Takht, the construction of Lohgarh, and the organization of an armed force, Guru Hargobind transformed the Sikh community into a body capable of protecting its religious and social interests. The battles fought against the Mughal forces at Amritsar, Himmatpur, Ruhila, and Goha/Kirat further intensified Sikh-Mughal tensions and demonstrated the growing military strength of the Sikhs.

Thus, the period from Guru Amar Das to Guru Hargobind witnessed a gradual transformation in Sikh-Mughal relations from cooperation and mutual respect to conflict and resistance. These developments not only shaped the future course of Sikh history but also laid the foundation for the emergence of the Sikh community as an organized religious, social, and military force of the Hindus in Punjab.

Notes and References

1. Birth: April 15, 1469, Death: September 22, 1539.
2. ***The Guru Granth Sahab***, Baburbani, Shiromari Gurudwara Prabandhak Committee, Amritsar, 2015, 360.
3. ***Baburnarma, A Menoir***, Translated into English by A.S. Beveridge, New Delhi: Rupa Publication India Pvt. Ltd., Reprint 2017, 309.

   R.P. Tripathy, ***Rise and Fall of the Mughal Empire***, Vol. 1, Seventh edition, Delhi: Surjeet Publications, Reprint 2011, 34.
4. *Ibid*., 43, 49; ***Baburnarma : A Menoir***, 362.
5. *Ibid*., 54.
6. *Ibid*., 93, 94, 99.

7. *Ibid*., 106.
8. *Ibid*., 167-169.
9. Pashaura Singh and Louis E. Fenech (eds.), ***The Oxford Hand Book of Sikh Studies***, Oxford: Oxford University Press, 2014, 328-339.

   According to the reference mentioned in the *Janam Sakhi* and in the *Suraj Prakash*, Humayun is said to meet the Guru at Khandur Sahib.
10. *Ibid*.
11. Guru Nanak Dev, Guru Angad Dev, Guru Amar Das, Guru Ram Das, Guru Arjun Dev.
12. Ajit Singh Aulakh, ***Sachitra Janma Saakhiyan : Guru Arjun Dev Ji, Guru Harigovind Sahib Ji, Guru Hari Ray Sahib Ji***, Bhai Chatar Singh Jivan Singh, Bazar Mai Sewa, Amritsar [First edition 2002], Second edition 2015, 4.
13. *Ibid*., 16.
14. *Ibid*., 28-29.
15. For details, please see: ***The Adigranth***, translated into English by E. Truimph.
16. Max Arther Maculiffe, ***The Sikh Religion : Its Gurus, Sacred Writings and Authors***, [6 Vol.], Vol. III, Oxford: Oxford Clarendon Press, 1909, 8, 10.
17. *Ibid*.
18. *Ibid*.
19. *Ibid*., 22, 25.
20. *Ibid*., 13-20.
21. *Ibid*., Vol. VI, 5-39, 95-105; Ajit Singh Aulakh, *op.cit*.
22. Max Arther Maculiffe, *op.cit*.; Khushwant Singh, ***A History of the Sikhs***, Vol. I, 1469-1889, New Delhi: Oxford University Press, Second Edition, 2004, 68-70, 80-40.
23. *Ibid*.
24. For details, please see: Sheikh Ahmad Sarhindi's ***Maktoobaat Imam Rabbani***.
25. S.R. Sharma, ***The Crescent in India : A Study in Medieval History***, [Bombay: Karnatak Publishing House, 1937], Agra: Lakshmi Narayan & Sons, 1954, 426-440.
26. *Ibid*.
27. Beni Prasad, ***History of Jahangir***, Allahabad: The Indian Press Ltd., 1922, 67-70.
28. *Ibid*., For details, please see: Jahangir, ***Tuzuk-i-Jahangiri***, Translated into English by Alexander Rogers, edited by Henry Beveridge, ***Tuzuk-i-Jahangiri***; or, ***Memoirs of Jahangir***.
29. *Ibid*.
30. *Ibid*.
31. *Ibid*.
32. *Ibid*.
33. *Ibid*.
34. *Ibid*.
35. *Ibid*.
36. *Ibid*.
37. Khushant Singh, *op.cit*., 84-85.
38. Amrita Sharma, ***Guru Har Gobind: His Life and Teachings***, Bazar Mai Sewan, Amritsar: Singh Brothers Publishers Booksellers Exporters [originally published by Sterling Press Pvt. Limited in 2006], Reprint 2012, 6.

39. *Ibid*., 16.
40. *Ibid*.
41. *Ibid*., 20.
42. *Ibid*.
43. *Ibid*.
44. *Ibid*.
45. *Ibid*.
46. Sheikh Ahmad Sarhindi was the most fanatic Muslim scholar of his times. He deadly affected the policies towards the Hindus.
47. *Ibid*., 20.
48. The good memory of this name of *'Lohgarh'* was referred to many of the strong forts in later periods. For example Banda Bahadur's strong fortification was given the same name of Lohgarh as well as after some more 50 years, the king of Bharatpur used to call their fort as *'Lohgarh'*.
49. Max Arthor Macauliffe, *op.cit*., Vol. IV.
50. Khushwant Singh, *op.cit*., 102-104.
51. *Ibid*., 104-105.
52. *Ibid*., 105-107.
53. *Ibid*., 107-109. ★

Article Received on May 26, 2026; Accepted on June 10, 2026

JOURNAL OF NATIONAL DEVELOPMENT

PEER REVIEWED, INDEXED & REFEREED Bi-ANNUAL INTERNATIONAL JOURNAL

ISSN 0972-8309

https://www.jndmeerut.org

[Vol. 39, No. 1 (Summer), 2026]

https://doi.org/10.62047/JND.2026.06.30.145

Determinants of Investment Decisions among University Students of Nepal: Role of Financial Literacy and Financial Behaviour

Roshan Paudel[1] & Tika Ram Gautam[2]

[1]BBA Student, Public Youth Campus, Tribhuvan University, Kathmandu (Nepal) E-mail:<roshanpaudel2002@gmail.com>

[2]Associate Professor and Former Head, Central Department of Sociology, Tribhuvan University, Kathmandu (Nepal) E-mail:<tika.gautam@cdso.tu.edu.np>

Abstract

Investment decision-making among young adults has gained increasing importance in emerging economies due to expanding financial markets and growing participation in personal financial activities. This study examines the influence of financial literacy and financial behaviour on investment decisions among Nepalese university students. Grounded in the Theory of Planned Behaviour, the study adopts a quantitative research design using primary data collected through structured questionnaires from bachelor-level management students in Kathmandu Valley, Nepal. A total of 122 valid responses were analyzed using descriptive statistics, correlation analysis, and multiple regression analysis through JAMOVI software. The findings reveal that both financial literacy and financial behaviour significantly and positively influence investment decisions, suggesting that financially knowledgeable students with disciplined financial practices are more likely to make informed investment choices. The study highlights the importance of strengthening financial education and promoting responsible financial behaviour among university students to improve investment awareness and financial decision-making capability. The findings contribute to the growing literature on youth financial behaviour in emerging economies and provide practical implications for policymakers, educational institutions, and financial service providers in Nepal.

Keywords

Financial literacy, Financial behaviour, Investment decision, University students, Nepal.

Centre For Studies of National Development, Meerut

Editorial Office : D-59, Shastri Nagar, Meerut - 250 004 (INDIA)

Ph. : 0121-2763765, +91-9997771669, +91-9412200765

12

Determinants of Investment Decisions among University Students of Nepal: Role of Financial Literacy and Financial Behaviour

1. Introduction

Investment decision-making has become increasingly important among young adults due to the expansion of financial markets, digital financial services, and growing opportunities for personal wealth management. In emerging economies, individuals are increasingly expected to make informed financial decisions regarding savings, investments, and long-term financial planning. University students, in particular, represent an important demographic group because they are transitioning toward financial independence and future economic participation. However, effective investment decision-making requires not only access to financial resources but also adequate financial knowledge and responsible financial behaviour.

Financial literacy has emerged as a critical factor influencing investment decisions and overall financial wellbeing. It refers to the ability of individuals to understand financial concepts, evaluate investment alternatives, and apply financial knowledge in practical decision-making situations. Financially literate individuals are generally more capable of assessing financial risks, understanding investment opportunities, and making rational financial choices. Previous studies have consistently reported a positive relationship between financial literacy and investment behaviour, indicating that individuals with higher financial knowledge tend to demonstrate greater investment participation and improved financial decision-making capability (Baihaqqy *et al.*, 2020; Kumari, 2020; Utami & Sitanggang, 2021). Financial literacy acts as a major agent in shaping investment decisions.

In addition to financial literacy, financial behaviour plays a significant role in shaping investment decisions. Financial behaviour refers to the practical financial habits and actions individuals adopt in managing their financial resources, including budgeting, saving, expenditure control, and financial planning. Sound financial behaviour reflects financial discipline and long-term financial orientation, both of which contribute to investment readiness and financial stability. Existing literature suggests that individuals with responsible financial behaviour are more likely to engage in investment activities and make informed financial decisions (Arianti, 2018; Rana, 2024). Financial behaviour may therefore serve as an important mechanism through which financial knowledge is translated into actual investment practices.

Despite growing research on financial literacy and investment behaviour, existing literature remains limited in the context of developing economies such as Nepal, where financial education and investment awareness among young adults are still evolving. Most previous studies have focused either on general populations or individual determinants of investment behaviour without adequately examining the combined influence of financial literacy and financial behaviour among university students. Furthermore, the increasing accessibility of digital financial platforms and investment opportunities has made it important to understand how young adults develop investment-related knowledge and financial habits in emerging economic environments.

Although numerous studies have examined the relationship between financial literacy and investment decisions, existing literature remains limited in several aspects. Many previous studies have focused primarily on general populations or single determinants of investment behaviour without adequately examining the combined influence of financial literacy and financial behaviour among university students. Furthermore, limited empirical attention has been given to emerging economies such as Nepal, where financial education and investment awareness among young adults are still developing.

University students represent an important demographic group because they are entering financially independent stages of life and increasingly participating in financial activities through digital financial platforms and investment opportunities. However, research examining how financial literacy and financial behaviour jointly influence investment decisions among Nepalese university students remains limited. Therefore, this study seeks to address this gap by examining the influence of financial literacy and financial behaviour on investment decisions within the context of Nepalese university students.

Grounded in the Theory of Planned Behaviour (Ajzen, 1991), this study examines the influence of financial literacy and financial behaviour on investment decisions among Nepalese university students. The study aims to contribute to the growing literature on youth financial behaviour by providing empirical evidence from an emerging economy context. The findings are expected to offer practical insights for policymakers, educational institutions, and financial service providers seeking to improve financial education and promote informed investment decision-making among university students in Nepal.

1·2 Hypotheses

Based on the theoretical framework and empirical literature, the following hypotheses are developed:

H_1: Financial literacy significantly influences investment decisions among Nepalese university students.

H_2: Financial behaviour significantly influences investment decisions among Nepalese university students.

2. Literature Review

The literature review provides a theoretical and empirical foundation for understanding the factors influencing investment decisions among university students. This section examines existing studies related to financial literacy and financial behaviour and their relationship with investment decision-making. It reviews prior research findings to identify how financial knowledge and financial management practices contribute to individuals' investment-related behaviour. The section also discusses the theoretical foundation underpinning the study, namely the Theory of Planned Behaviour, which explains the relationship between individual knowledge, behaviour, and decision-making outcomes. Furthermore, the review highlights key gaps in the existing literature, particularly within the context of developing economies such as Nepal. Based on the theoretical arguments and empirical evidence presented, hypotheses are developed to examine the influence of financial literacy and financial behaviour on investment decisions among Nepalese university students.

2·1 Financial Literacy and Investment Decisions

Financial literacy has become an increasingly important concept in understanding individual financial decision-making and investment behaviour. It refers to the ability of individuals to understand financial concepts, evaluate financial information, and apply financial knowledge effectively in personal financial management. Financial literacy enables individuals to assess investment alternatives, manage financial risks, and make informed decisions regarding savings and investments. In modern financial systems, where investment opportunities and financial products continue to expand, financial literacy plays a critical role in promoting sound financial decision-making.

Existing empirical studies consistently demonstrate a positive relationship between financial literacy and investment decisions. Baihaqqy *et al.* (2020) found that individuals possessing higher levels of financial knowledge are more likely to participate in investment activities and make rational financial decisions. Similarly, Kumari (2020) reported that financial literacy improves individuals' capability to evaluate risk-return tradeoffs and select appropriate investment alternatives. Utami and Sitanggang (2021) further observed that financial literacy positively influences investment awareness and financial confidence among young investors. These findings suggest that financially literate individuals tend to exhibit greater investment readiness and improved financial decision-making behaviour.

Among university students, financial literacy becomes particularly important because young adults are increasingly exposed to financial products, digital investment platforms, and personal financial responsibilities at an early stage of life. However, despite growing financial accessibility, many students in emerging economies continue to face challenges related to limited financial understanding and inadequate investment knowledge. Consequently, improving financial literacy may significantly contribute to enhancing investment decision-making capability among university students.

2·2 Financial Behaviour and Investment Decisions

Financial behaviour refers to the practical financial habits and actions individuals adopt in managing their financial resources, including budgeting, saving, expenditure control, and financial planning. Positive financial behaviour reflects financial discipline, responsible money management, and long-term financial orientation, all of which contribute to financial stability and investment preparedness.

Previous studies indicate that financial behaviour significantly influences investment decisions and financial well-being. Arianti (2018) emphasized that individuals who regularly engage in financial planning and savings practices are more likely to participate in investment activities and make informed financial choices. Rana (2024) similarly reported that financial behaviour exerts a significant positive influence on investment decisions, suggesting that disciplined financial practices strengthen financial confidence and investment capability. Individuals with responsible financial behaviour generally demonstrate greater ability to allocate resources toward long-term financial goals and investment opportunities.

Research further suggests that financial behaviour may strengthen the practical application of financial literacy. Individuals possessing financial knowledge may not necessarily engage in effective investment activities unless they also develop disciplined financial habits and responsible money management practices. Therefore, financial behaviour serves as an important determinant of how financial knowledge is translated into actual investment decision-making.

2·3 Theoretical Foundation

This study is grounded in the Theory of Planned Behaviour (TPB) developed by Ajzen (1991). The theory explains that individual behaviour is influenced by behavioural intentions, attitudes, subjective norms, and perceived behavioural control. According to TPB, individuals are more likely to engage in a particular behaviour when they possess positive attitudes toward the behaviour, perceive social support, and believe they have sufficient capability and control to perform it.

In the context of investment decision-making, financial literacy contributes to perceived behavioural control by improving individuals' understanding of financial concepts and investment processes. Similarly, financial behaviour reflects practical financial attitudes and habits that influence financial decision-making tendencies. Therefore, TPB provides an appropriate theoretical framework for explaining how financial literacy and financial behaviour collectively shape investment decisions among university students.

3. Methodology

The present study investigates the determinants of investment decisions among university students using a quantitative research methodology. In line with this objective, an appropriate research design was formulated to ensure the rigorous collection, measurement, and analysis of empirical data pertaining to students' investment behaviour.

3·1 Research Design

This study adopted a quantitative research design to examine the influence of financial literacy and financial behaviour on investment decisions among Nepalese university students. A descriptive and causal research approach was employed to analyze the relationships between the study variables and assess their impact on investment decision-making. The quantitative approach was considered appropriate because the study aimed to measure variable relationships using statistical techniques and numerical data.

3·2 Population and Sample

The target population of the study consisted of bachelor-level management students studying in colleges within Kathmandu Valley, Nepal. University students were selected because they represent an important demographic group transitioning toward financial independence and active financial participation. A total of 122 valid responses were collected and used for the final analysis. The respondents were selected using a convenience sampling technique due to accessibility and time considerations.

3·3 Data Collection and Instrumentation

The study was based on primary data collected through a structured self-administered questionnaire. The questionnaire consisted of close-ended questions designed to measure respondents' financial literacy, financial behaviour, and investment decision-making tendencies. The survey instrument was developed based on previously validated studies and relevant theoretical concepts to ensure content relevance and consistency. Responses were measured using a five-point Likert scale ranging from strongly disagree to strongly agree.

3·4 Measurement of Variables

The study examined investment decision as the dependent variable, while financial literacy and financial behaviour were considered independent variables.

- **Financial Literacy:** Financial literacy refers to the ability of individuals to understand financial concepts, evaluate financial information, and apply financial knowledge in personal financial decision-making. The variable was measured using statements related to financial understanding, investment knowledge, and financial awareness.
- **Financial Behaviour:** Financial behaviour refers to individuals' practical financial habits and actions, including budgeting, saving, expenditure control, and financial planning. The variable was measured using statements reflecting respondents' financial management practices and financial discipline.
- **Investment Decision:** Investment decision refers to the tendency and capability of individuals to engage in investment-related activities and make

informed financial choices. The variable was measured through statements associated with investment awareness, investment planning, and decision-making confidence.

3·5 Data Analysis Techniques

The collected data were coded, organized, and analyzed using JAMOVI statistical software. Both descriptive and inferential statistical techniques were employed to analyze the data. Descriptive statistics, including frequency distribution, mean, and standard deviation, were used to summarize respondent characteristics and variable responses. Inferential statistical techniques such as correlation analysis and multiple regression analysis were conducted to examine the relationships between financial literacy, financial behaviour, and investment decisions. The findings were interpreted based on statistical significance and theoretical relevance.

4. Results and Discussion

4·1 Demographic Profile of Respondents

The demographic analysis was conducted to understand the background characteristics of the respondents participating in the study. The respondents consisted of bachelor-level management students from colleges within Kathmandu Valley, Nepal. Variables such as gender and age group were analyzed using descriptive statistics to provide an overview of respondent characteristics. Understanding demographic distribution is important because financial knowledge, financial behaviour, and investment tendencies may vary across different respondent groups.

Table-1: Demographic profile of the respondents

Variables	Category	Frequency	Percentage
Gender	Male	61	50.0
	Female	61	50.0
Age Group	Below 20 years	15	12.3
	20-25 years	80	65.6
	Above 25 years	27	22.1

The demographic findings indicate that the respondents were equally distributed across gender categories, providing balanced representation within the study. The majority of respondents belonged to the 20-25 years age group, indicating that most participants were young adults actively transitioning toward financial independence and investment awareness. The respondent profile supports the relevance of the study in examining investment decision-making behaviour among university students in Nepal.

4·2 Descriptive Statistics and Reliability Analysis

Descriptive statistics were used to examine the central tendency and variability of the study variables, including financial literacy, financial behaviour, and investment decision. Reliability analysis was conducted to evaluate the internal consistency of the measurement scales used in the study. Cronbach's Alpha values greater than 0.70 are generally considered acceptable for reliability.

Table-2: Descriptive Statistics and Reliability Analysis

Variables	Mean	Standard Deviation	Cronbach's Alpha
Financial Literacy	3.87	0.61	0.781
Financial Behaviour	3.94	0.58	0.804
Investment Decision	3.76	0.64	0.792

The descriptive statistics indicate that respondents demonstrated moderately high levels of financial literacy, financial behaviour, and investment decision tendencies. Financial behaviour recorded the highest mean value, suggesting that respondents generally exhibited positive financial management practices such as budgeting, saving, and financial planning. The Cronbach's Alpha coefficients for all variables exceeded the acceptable threshold value of 0.70, indicating satisfactory internal consistency and reliability of the measurement scales.

4·3 Correlation Analysis

Correlation analysis was conducted to examine the relationship between financial literacy, financial behaviour, and investment decision. Pearson correlation coefficients were used to determine the strength and direction of the relationships among the variables.

Table-3: Correlation Matrix

Variables	Financial Literacy	Financial Behaviour	Investment Decision
Financial Literacy	1		
Financial Behaviour	0.367***	1	
Investment Decision	0.254**	0.399***	1

Note: ** < 0.01 = ***; < 0.05 = **

The correlation results reveal positive relationships among the study variables. Financial literacy demonstrated a positive and statistically significant relationship with investment decision (r=0.254, =0.005), indicating that students possessing stronger financial knowledge are more likely to make informed investment decisions. Similarly, financial behaviour showed a positive and stronger relationship with investment decision (r=0.399, <0.001), suggesting that disciplined financial management practices contribute significantly to investment readiness and financial confidence.

The findings imply that both financial literacy and financial behaviour are important determinants of investment decision-making among university students. Furthermore, the stronger correlation observed between financial behaviour and investment decision suggests that practical financial habits may exert greater influence on investment activities than financial knowledge alone.

4·4 Regression Analysis and Hypothesis Testing

Multiple regression analysis was conducted to examine the influence of financial literacy and financial behaviour on investment decisions among Nepalese university students. Investment decision was considered the dependent variable, while financial literacy and financial behaviour were treated as independent variables.

Table-4: Regression Analysis Results

Variables	Beta Coefficient	t-value	Significance (-value)
Financial Literacy	0.232	2.88	0.005
Financial Behaviour	0.391	4.72	<0.001

Model Summary	Value
Adjusted R^2	0.152
F-value	12.84
Significance	<0.001

The regression findings reveal that financial literacy has a positive and statistically significant influence on investment decisions among Nepalese university students (=0.232, =0.005). The findings suggest that students possessing higher financial knowledge and understanding are more capable of evaluating investment opportunities and making informed financial decisions. The result supports previous studies that identified financial literacy as an important determinant of investment participation and financial capability.

Similarly, financial behaviour demonstrated a positive and highly significant influence on investment decisions (= 0.391,   < 0.001). The findings indicate that students exhibiting disciplined financial practices, including budgeting, saving, and financial planning, are more likely to engage in investment-related activities and demonstrate stronger investment readiness. Compared to financial literacy, financial behaviour exhibited a relatively stronger influence on investment decisions, suggesting that practical financial habits play a critical role in shaping investment behaviour among young adults.

The adjusted R^2 value of 0.152 indicates that financial literacy and financial behaviour collectively explain 15.2% of the variation in investment decisions among respondents. Although other external factors may also influence investment behaviour, the model demonstrates statistically significant explanatory power. The overall regression model was statistically significant (F 12.84, <0.001), confirming the suitability of the model for explaining investment decision-making behaviour.

The findings are consistent with the Theory of Planned Behaviour, which explains that individuals' knowledge, attitudes, and behavioural tendencies significantly influence decision-making outcomes. The results also align with previous empirical studies conducted by Baihaqqy *et al*. (2020), Arianti (2018), Rana (2024), and Kumari (2020), which reported positive relationships between financial literacy, financial behaviour, and investment decision-making.

Table-5: Hypotheses Testing Summary

Hypotheses	Statement	Result
H_1	Financial literacy significantly influences investment decisions among Nepalese university students.	Supported/ Validated
H_2	Financial behaviour significantly influences investment decisions among Nepalese university students.	Supported/ Validated

5. Discussion

The findings of this study demonstrate that both financial literacy and financial behaviour significantly influence investment decisions among Nepalese university students. The positive and significant relationship between financial literacy and investment decisions indicates that students possessing greater financial knowledge and understanding are more likely to evaluate investment opportunities effectively and make informed financial choices. This finding is consistent with the studies of Baihaqqy *et al.* (2020), Kumari (2020), and Utami and Sitanggang (2021), which reported that financially literate individuals exhibit higher levels of investment participation and financial decision-making capability. The result suggests that financial knowledge enhances individuals' confidence and ability to assess investment alternatives and associated risks.

The study further revealed that financial behaviour has a positive and significant influence on investment decisions. Students who demonstrate responsible financial practices such as budgeting, saving, expenditure control, and financial planning are more likely to engage in investment activities and make sound financial decisions. This finding supports the conclusions of Arianti (2018) and Rana (2024), who found that disciplined financial behaviour contributes positively to investment readiness and financial wellbeing. The relatively stronger effect of financial behaviour compared to financial literacy suggests that practical financial habits play a critical role in translating financial knowledge into actual investment actions.

The findings also support the Theory of Planned Behaviour (Ajzen, 1991), which explains that individual behaviour is influenced by knowledge, attitudes, and perceived behavioural control. In the context of this study, financial literacy enhances individuals' understanding and confidence in investment-related matters, while financial behaviour reflects the practical application of financial knowledge through responsible financial management practices. Therefore, students who possess both adequate financial knowledge and positive financial behaviour are more likely to make effective investment decisions.

Overall, the findings highlight the importance of strengthening both financial education and responsible financial behaviour among university students. While financial literacy provides the necessary knowledge for making informed decisions, positive financial behaviour enables individuals to apply that knowledge effectively in real-world financial situations. Consequently, promoting both dimensions may contribute to improved investment awareness and financial decision-making capability among young adults in Nepal.

6. Conclusion and Implications

This study examined the influence of financial literacy and financial behaviour on investment decisions among Nepalese university students. Grounded in the Theory of Planned Behaviour (TPB), the study sought to understand how financial knowledge and financial management practices contribute to investment decision-making among young adults. Using quantitative data collected from bachelor-level management students in Kathmandu Valley, the study analyzed the relationships between financial literacy, financial behaviour, and investment decisions through descriptive, correlation, and regression analyses.

The first objective of the study was to assess the influence of financial literacy on investment decisions. The findings revealed that financial literacy has a positive and statistically significant effect on investment decisions among Nepalese university students. This suggests that students who possess greater knowledge of financial concepts, investment opportunities, and risk management are better equipped to evaluate investment alternatives and make informed financial choices. The result highlights the importance of financial knowledge in enhancing individuals' confidence and capability in investment-related decision-making.

The second objective was to examine the influence of financial behaviour on investment decisions. The findings demonstrated that financial behaviour positively and significantly influences investment decisions. Students who engage in responsible financial practices, such as budgeting, saving, expenditure control, and financial planning, are more likely to participate in investment activities and display greater investment readiness. Moreover, financial behaviour was found to have a stronger influence on investment decisions than financial literacy, indicating that practical financial habits play a crucial role in translating financial knowledge into actual investment actions.

Overall, the study concludes that both financial literacy and financial behaviour are important determinants of investment decision-making among university students in Nepal. The findings support the Theory of Planned Behaviour by demonstrating that knowledge and behavioural tendencies significantly influence financial decision-making outcomes. The study further suggests that improving investment decisions among young adults requires not only enhancing financial literacy but also fostering responsible financial behaviours. Therefore, educational institutions, policymakers, and financial service providers should work collaboratively to strengthen financial education initiatives and promote positive financial management practices among university students. By doing so, young adults can be better prepared to make informed investment decisions and achieve long-term financial wellbeing.

6·1 Theoretical Implications

The study contributes to the existing literature by extending the application of the Theory of Planned Behaviour in the context of investment decision-making among university students. The findings support the theoretical assumption that individuals' knowledge and behavioural tendencies significantly influence decision-making outcomes. By integrating financial literacy and financial behaviour within a single analytical framework, the study provides empirical evidence regarding the importance of cognitive and behavioural dimensions in shaping investment decisions among young adults.

Furthermore, the study contributes to the limited body of literature related to financial behaviour and investment decisions in Nepal. The findings provide additional evidence from an emerging economy context where financial education and investment awareness among university students are still developing.

6·2 Practical Implications

The findings of the study provide important practical implications for policymakers, educational institutions, and financial service providers. Since financial literacy significantly influences investment decisions, educational institutions should prioritize financial education programs that enhance students' understanding of personal finance, investment planning, and financial risk management. Integrating financial literacy courses and investment awareness programs into university curricula may help students develop stronger financial decision-making capability.

The findings also highlight the importance of promoting positive financial behaviour among young adults. Financial institutions and policymakers should encourage responsible financial habits such as budgeting, saving, and long-term financial planning through financial awareness campaigns and youth-oriented financial programs. Strengthening practical financial behaviour may improve investment participation and support long-term financial wellbeing among university students.

6·3 Limitations of the Study

Despite its contributions, the study is subject to several limitations. First, the study was limited to bachelor-level management students within Kathmandu Valley, which may restrict the generalizability of the findings to other student populations or geographical regions of Nepal. Second, the study employed a convenience sampling technique, which may limit the representativeness of the sample. Third, the study focused primarily on financial literacy and financial behaviour, while other potential determinants of investment decisions such as psychological factors, social influence, and economic conditions were not extensively examined.

In addition, the study relied on self-reported responses collected through questionnaires, which may be influenced by respondent bias and subjective perceptions.

7. Future Research Directions

Future studies may expand the scope of research by including larger and more diverse respondent groups from different academic disciplines and geographical regions of Nepal. Researchers may also examine additional variables such as psychological biases, financial risk tolerance, social influence, and digital financial literacy to provide a broader understanding of investment decision-making behaviour among young adults.

Furthermore, future research may adopt longitudinal or comparative research designs to examine changes in financial behaviour and investment decisions over time. Comparative studies between different demographic groups or countries may also contribute to deeper understanding of financial decision-making behaviour in emerging economies.

References

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

Arianti, B. F., "The influence of financial literacy, financial behavior and income on investment decision", ***Economics and Accounting Journal***, 1(1), 2018, 1-10.

Baihaqqy, M. R. I., Disman, D., Nugraha, N., & Sari, M., "The effect of financial literacy on the investment decisions", ***Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences***, 3(4), 2020, 3073-3083. https://doi.org/10.33258/birci.v3i4.1333

Dash, M., "Factors influencing investment decision of generations in India: An econometric study", ***International Journal of Business Management and Economic Research***, 1(1), 2010, 15-26.

Fama, E. F., "Efficient capital markets: A review of theory and empirical work", ***The Journal of Finance***, 25(2), 1970, 383-417. https://doi.org/10.2307/2325486

Kahneman, D., & Tversky, A., "Prospect theory: An analysis of decision under risk", ***Econometrica***, 47(2), 1979, 263-291. https://doi.org/10.2307/1914185

Kumari, T., "The impact of financial literacy on investment decisions: With special reference to undergraduates in Western Province, Sri Lanka", ***Asian Journal of Contemporary Education***, 4(2), 2020, 110-126. https://doi.org/10.18488/journal.137.2020.42.110.126

Rana, S., "Financial behavior and investment decisions among youth investors: Evidence from developing economies", ***Journal of Financial Behavior and Practice***, 6(1), 2024, 45-58.

Utami, N. W., & Sitanggang, M. L., "The effect of financial literacy and financial behavior on investment decisions among young investors", ***International Journal of Economics, Business and Accounting Research***, 5(2), 2021, 123-134.

Wamae, J. N., "Behavioural factors influencing investment decision in stock market: A survey of investment banks in Kenya", ***International Journal of Social Sciences and Entrepreneurship***, 1(6), 2013, 68-83.

★

Article Received on May 28, 2026; Accepted on June 14, 2026

JOURNAL OF NATIONAL DEVELOPMENT

PEER REVIEWED, INDEXED & REFEREED Bi-ANNUAL INTERNATIONAL JOURNAL

ISSN 0972-8309

https://www.jndmeerut.org

[Vol. 39, No. 1 (Summer), 2026]

https://doi.org/10.62047/JND.2026.06.30.158

Between Tradition and Modernity: Indigenous Occupational Practices of Tamang Individuals in Kakani, Nuwakot

Pranjal Pokharel[1], *Rakcsha Chettri*[2] & *Dil Bahadur Gurung*[3]

[1]Social Work Researcher E-mail:<Pranjalpokharel250@gmail.com>

[2]Faculty of Social Work at St. Xavier's College, Maitighar; M.Phil Scholar in Social Work (Nepal) E-mail:<rakcshachettri@sxc.edu.np>

[3]Lead, Social Work at St. Xavier's College, Maitighar; PhD in Sociology (Nepal) E-mail:<dilgurung@sxc.edu.np>

Abstract

This qualitative study explores engagement, sustainability, and perception of Tamang individuals who are associated with their traditional occupation such as agriculture, animal husbandry, and natural dyeing. This study explores how Tamang individuals of study area perceive modernity and their traditional occupations. Through interviews, the findings of this study suggest that agriculture and animal husbandry remain the most accessible livelihood options for the research participants but have transitioned to and adopted cash crops and small-scale business due to modern market demands. On the other hand, natural dyeing, although less practiced, has seen significant growth and displays economic potential but also faces difficulties from the scarcity of seasonal resources and inadequate knowledge transmission. Social media assists natural dyeing but is underutilized by other occupations, and formal education lacks integration of indigenous knowledge, which has revealed its failure in preserving traditional occupations. The study also finds that the participants involved in natural dyeing are content with their occupation, while those engaged in animal husbandry and agriculture view it as integral but in need of revision.

Keywords

Indigenous occupations, Agriculture, Dyeing, Traditional livelihoods, Modernization.

Centre For Studies of National Development, Meerut

Editorial Office : D-59, Shastri Nagar, Meerut - 250 004 (INDIA)

Ph. : 0121-2763765, +91-9997771669, +91-9412200765

13

Between Tradition and Modernity: Indigenous Occupational Practices of Tamang Individuals in Kakani, Nuwakot

1. Introduction

Nepal is home to a profusion of indigenous communities, whose social organizations, livelihoods, and belief systems are rooted in native cultural practices and ecologies. These communities rely and sustain themselves through indigenous knowledge systems that act as a basis for agriculture, animal husbandry, craft production, and resource management. As Semali & Kincheloe (2002) explain, such knowledge is "deeply rooted in its environment, history and new experiences, and distinct from modern, scientific, formal knowledge". Indigenous knowledge-based practices vary according to each community's values, and occupations are usually shaped by geography and tradition. These practices authentically survive in ethnically homogenous societies. Enz (1986) noted that a homogeneous societal culture is one in which the shared meanings and beliefs exist. For homogeneous societies, the degree of consensus is strong. Likewise, an ethnically homogenous community, foremost, provides consistency in worldview as their socio-economic practices, decision-making process, and resource management are shared and communal. The Tamang community, with its distinctiveness, shares strong social cohesion and mutual respect that form their collective identity, and this bond has shaped their community throughout various historical obstacles. It is one of the major ethnic groups of Nepal having their own traditional customs, festivals, religion and language, residing in hilly part of the country (Sapkota *et al*., 2023).

Despite the indigenous communities of Nepal having maintained relative autonomy through closely-knit social structures, they are encountering increasing pressures from modernization. For Martinelli (2005), modernization is the sum of the processes of large-scale change through which a certain society tends to acquire the economic, political, social and cultural characteristics. Liechty (2003), according to his research in Kathmandu, consumption of western cloths, music, movie and dream to migrate/travel to western countries is symbolized as modernization. Berger (1996) notes that modernization is the internal achievement of a society where the particular process of modernization support each other in combination. Notwithstanding, modernization is understood as the drastic transformation of a traditional society into a modern one with a particular focus on advancements in living standards, morals, values, principles, education, and technology are the concepts of modernization (Sharma, 2024). These expeditious changes in native societies often create conflicts with traditional knowledge systems and livelihood, eventually constructing tensions between cultural/traditional continuity and modern influences.

Based on above understanding of modernization, this research narrows down its focus on how modernization affects or changes traditional indigenous values and practices. Subsequently, this study explores how Tamang individuals in a homogenous community engage in, sustain, and contribute to the preservation of indigenous-knowledge-based practices, such as indigenous farming, traditional animal husbandry, and indigenous craft skills.

2. Methods

As a study area, Kakani, Ward-5, Nuwakot is selected. The rationale to select this area is availability of homogeneous Tamang inhabitants. The research participants were selected using purposive sampling technique. In total six research participants were selected based on their occupation such as agriculture, animal husbandry, and indigenous craft skill (natural dyeing). An open-ended interview is carried out in order to collect data related to their indigenous occupational practices in today's modern society. Informed consent is obtained from the selected participants prior to the interview. The responses from the research participants are analyzed using narrative analysis technique.

3. Findings

3.1 Indigenous Practices and the use of Natural Resources

Natural sources have played a pivotal role in processing of dyes, where a tradition of indigenous natural dyeing represents a continuation of an ancient native system deeply rooted in local cultural and ecological practices which *Geru* (Ochre) color for the travelling and dwelling Buddhist *Lamas'* Kasaya was extracted using natural sources such as Laha (Lac). Various indigenous resources, particularly the diverse flora of the Kakani terrain, are employed in natural dyeing for the extraction of different colors on natural fabrics. According to S. Tamang, a research participant who is also the local practitioner:

> Natural and organic materials such as turmeric are used to extract yellow color, walnuts extract cream color, pomegranate rinds extract *khaki* color, *Tithepatii* (Mugwort) extracts light green, and Banmara (Jungle Crow) extracts blue to cream color. Other natural primary sources are employed for extracting colors on fabrics such as onions peels, pomegranate rinds, Walnuts, *Sayapatri* (Marigold), *Makhamali* (Globe amaranth), *Godawari* (Chrysanthemum), *Chutro*, Sisou Ko Paat (Dalbergia Sissoo), Lemon Juice, *Padamchal* (Himalayan Rhubarb), *Harro paat* (Chebulic Myrobalan), and *Laha* (Lac). (Interview, November 6, 2024)

This shows the local's in-depth knowledge in terms of how different colors are extracted through various locally available plants (natural materials) applying indigenous knowledge and skills. These natural materials are prevalent in the community, its vicinity, and the nearby forest, though their availability depends on the yearly seasonal variations, which usually result in scarcity of materials during off-seasons. Additionally, natural dyeing can only be applied to fibers such as cotton, wool, denim, *Pashmina*, *Sisnu* (stinging nettle), and bamboo, as they are natural fibers and absorb natural colors of the environmental plants, without any complications. The dyeing process is intricate and can only be executed by a person who is well-versed and trained in this Indigenous method. The process consists of different stages. In this, a participant adds, "the resulting color also depends on what type of container the process is carried out in. The process is usually fermenting, boiling, and mixing with the fabrics. The decision to boil is taken only after fermentation is examined through meticulous monitoring" (Interview, November 6, 2024). This indicates that the process is largely experimental and recursive, with fabrics that are innately inclined to absorb natural colors acting as the base material. The produced colors heavily rely on the container's material and its size, as its surface can change the course of action during the process, leading to the generation of colors that are undetermined.

Although normative practice within the community had been the use of firewood, she abandoned this practice since the availability of LPG gas. Additionally, another major reason for the exclusion is firewood's detrimental effect on the environment, so instead of firewood, LPG gas is utilized for the boiling process. She further adds that Shivapuri-Nagarjun National Park has implemented restrictions on the use of forest trees for firewood and related sources to limit deforestation. The national park obliges the community members to purchase dry wood on certain occasions, which was not the case in the past with this LPG gas being more in use for the process.

Along with process of natural dyeing families sustain themselves with other occupation such as One of the participants, works in her family's occupation of animal husbandry, alongside her husband. The tentative number of different animals that she rears is 26. She stated, "I raise many animals in my homestead, around 7 to 8 goats, both female *(Bakhra)* and male *(Khasi)*, three Buffaloes *(Bhaisi)* and around 15 chickens. This is a family occupation. I work alongside my husband" (Interview, November 6, 2024). Her husband owns a sloping land, where they grow and amass different types of fodder trees, forages, and remnants of maize and millet straw, which are used for grazing the animals. As the community is surrounded by dense forest, on rare occasions, the grazing route for the animals is also directed towards the nearby forest, which helps them keep their amassed resources adequate throughout the year; the animals are usually guided by her husband. The main production of the occupation is to sell the male goats and chickens and buffaloes for their milk at the local dairy. Regarding the necessary resources that are required for daily functioning, S. Lama explained:

> As previously mentioned, the terrain structure of the land provides an inflow of water through brooks and streams without any obstacles, helping the community members to employ it in their activities. Animal husbandry, along with other indigenous practices, has always been self-reliant, especially when

> it comes to resources, harnessing the community's indigenous resources. (Interview, November 6, 2024)

The locals practice indigenous activities to prioritize the employment of resources that are prevalent within the community, without having to purchase and import. This self-sustaining system was possible in the past due to the unrestricted access to utilize the nearby forest's resources, but this has not been the case in the present context. Now, Shivapuri-Nagarjun National Park only permits moderate resources to be extracted from the local forest (especially dry wood), which has resulted in indigenous occupations of the area having difficulties maintaining themselves without the forest's offerings.

3·2 Dynamics in Engagements, Skill Transmission and Sustainability of Indigenous Traditional Practices

Natural dyeing and traditional crafts, though culturally significant, remain less popular due to the intensive labor, time, and knowledge they require. In terms of livelihood and sustainability, S. Tamang stated:

> We fully dedicate our time to this practice, from the beginning of the day to the end, we are always toiling in figuring out new colors and carrying out our daily routine of fermenting and other processes. We adhere to the natural cycle, which can lead to a scarcity of raw material during demand, as season plays a major role in accumulating organic materials. Therefore, due to its restrictions, the income is just enough for sustenance, but we are hoping for a bright future, as people are reverting to Indigenous practices and showing great interest …. (Interview, November 6, 2024)

The monitoring the process and experimentation is a key aspect of natural dyeing. The whole process is closely assessed by a knowledgeable person. It requires engagement from morning to night, and experimentation with generating new colors from the indigenous, natural sources and is also carried out throughout the year, making use of available sources. However, because natural dye sources are seasonal and are only available during certain times of the year, it leads to a dearth of resources during the off-seasons, so the allocation and implementation of resources should be done in time, according to their function in the process. This stalls the process and hinders financial gain due to demands persisting throughout the year.

Moreover, some participants are trying to continue this practice recognizing the gap in skill transmission with the help from older generations in the family and community. According to S. Tamang, "I am still learning traditional practice (natural dyeing) from my mother because this is my ancestor's skills and this will keep passing down to new generation by the older generation" (Interview, November 6, 2024). Indigenous natural dyeing is a traditional process and she gives all the credit to her mother's contribution, who continue to pass on that knowledge to the new generations. This journey has also helped her to blend indigenous knowledge with technicalities. However, there is a possibility of criticism that if such indigenous knowledge is blended with modern technicalities, the claim over indigenous essence could disappear in the future.

N. Tamang was also informally educated in traditional occupation by his parents. His father and grandfather were both farmers, and the whole ancestral family was involved in agriculture for many generations. His father was the one who taught him agricultural basics, giving him practical education by taking him to the field at an early age. He remembers:

> I have been working since my childhood, but as my father reached an age where he was unable to work, I took more responsibility on the farming side. So, it probably has been more than 10 years since I have fully been involved in this. On the other hand, harvesting strawberries has been just 4 to 5 years. (Interview, November 6, 2024).

When asked about the importance of elders and prominent figures in the community, B. Tamang, who is also the elder member of the same community said that:

> Elders are the most important in passing down traditions. This is an important role for a person like me. I think people of my age do share their experience and knowledge, but it is up to the young to take this information. In most cases, they are quick to dismiss the knowledge of the elderly. Though many also listen and learn from our experiences… (Interview, November 7, 2024).

Furthermore, in regard to the community relationship, S. Tamang majorly highlighted unawareness of the community members, in the past, regarding natural dyeing. Although natural dyeing is an indigenous practice that has been functioning since ancient times, many community members were not aware of its importance and entrenched heritage, which led to the neglect of such practices. According to her, "Before there was not much support from the community for my mother and me, but as my mother was able to make the community members aware of the effectiveness of natural dyeing, they slowly became more cordial to us. Many visit us and appreciate our work" (Interview, November 6, 2024). As her mother was able to make the community members aware of the importance of natural dyeing and its embedded importance in their culture, the members slowly were more receptive and amicable. This shift has led to not only a change in perception but also suitably garnered active appreciation.

In regard to the occupations being accessible to the community members, G. S. Tamang, who is the local school educator, pointed out the difficulties in getting involved in indigenous art and craft-related areas for local youths, who have not previously worked in similar fields, because of its demand for technical skills and artistic vision. He also stated that accessibility differs for other indigenous occupations of the community, such as agriculture and animal husbandry, as they are more accessible and convenient to most. She aids the information through her assessment:

> I have also seen a lot of people return from abroad or from Kathmandu and re-engage in agriculture and animal husbandry, but I do not see much of the same happening for traditional craft (weaving, crafting bamboo baskets, natural dye, handicraft, etc). I cannot give a precise reason for it, but it is probably because it requires thorough skills. Through this field, I feel this field can re-emerge…. (Interview, November 7, 2024)

This statement reflects a concern for sustainability for art and craft-related occupations due to the lack of active transmission of skills, eroding from its cultural importance. And very few people in the community are involved in traditional art and craft compared to the engagement in animal husbandry or agriculture. One of the reasons for that is, the limited structure of these types of occupation within the community. Individuals who do not come from traditional art and craft households find it difficult to enter its purview, despite the growing interest. And there is limited training available for them if they want to pursue indigenous natural dyeing or traditional crafting within the community, which diverts individuals in other accessible directions, such as agriculture. Contrary to natural dyeing, agriculture and animal husbandry are the most common hereditary occupations of the community. Thereby, many individuals are born into a farming and raising livestock environment, making it accessible from the start. As S. Lama stated, "This (animal husbandry) was taught by my parents. Before getting married, I was raised in the same lifestyle as my parents used to raise animals as well…. This is an ancestral profession for us" (Interview, November 6, 2024).

On the other hand, the farmers share a stronger bond within themselves as they have a traditional way of helping each other called the *Parma system* (reciprocal labor exchange in farmland of community members) in agriculture. The farmers of the community, socially and also financially (because of the implementation of the Parma system in their work), support each other, but as per N. Tamang, the community as a whole does not financially or socially encourage the people involved in agriculture, except for purchasing general agricultural products.

On similar lines, agriculture and animal husbandry are also occupations that demand maximum effort, even if the results are minimal. Accordingly, N. Tamang engages in the occupation every day of the twelve months. He states, "My family and I have to work throughout the year, without break, as the nature of this occupation is such, dependent on seasons" (Interview, November 6, 2024). Seasonal suitability dictates crop cultivation, making the year-long agricultural process vary by plant type. This continuous labour allows little flexibility. Similarly, S. Lama practices animal husbandry year-round. Unlike farming, it lacks seasonal variation and requires constant engagement in animal care and milk production with minimal adjustments and no calendar breaks.

Concerning sustainability, unlike S. Tamang, who adheres to the indigenous process of natural dyeing very authentically, although she also has made modest modification to adapt to the current environment by incorporating LPG Gas and excluding the use of firewood, N. Tamang and other farmers of the community have mostly deviated from cultivating only indigenous crops and plants to emphasizing cash crops such as Strawberries due to its high demand in the market. Indigenous crops such as *Kodoh* (Millet) and *Mula* (Radish) generate minimal profit compared to strawberries, which have high demand. This has made the farmers of the area focus more on cash crops, but without total neglect of indigenous plants and crops, even though cash crops themselves do not generate preferred profit.

In the traditional practices, the earnings are to sustain their family. However, in order to cope with the economy some prioritizes rearing chicken for profitability over the traditional focus on cows and buffaloes, but due to the high demand of chicken, now chicken seems more suitable to the current situation as it brings them decent money during sale.

In the past, the indigenous animal husbandry of the area favored buffaloes and cows due to the profitability of their milk, whereas chicken was reared for personal consumption. In contrast, today the focus has shifted to chicken rearing, which has helped participants to make a modest profit through its sale in the local market. This shift shows a proof that traditional practices alone may not provide sufficient economic returns, as per the demand of the market. Therefore, adapting to market became a basic necessity to maintain stable income.

Moreover, N. Tamang noted that the poorly structured market, which lacks consistent accessibility for farmers due to frequent fluctuations in market rates, makes production decisions challenging and often leads to miscalculations that, in many cases, result in significant losses. (Interview, November 6, 2024). Furthermore, another major issue for the farmers is that they do not have access to the market directly; most of the time, they are obliged to sell at unfavorable rates. As such, G. S. Tamang, stated that no instant measures are being taken by the local government addressing agricultural issues. He adds, "…there could be a greater participation in agriculture if the market had a proper structure where farmers didn't have to worry about selling their products at fluctuating margins" (Interview, November 7, 2024).

In the similar vein, A. M. Tamang, who is also the local government service provider, provided his assessment on the matter of divergence from indigenous customs in animal husbandry. According to him, "Although poultry is lucrative, in this region climate is not suitable for it, so people usually engaged in traditional animal husbandry" (Interview, November 7, 2024). This does not seem to be a drastic change in indigenous animal husbandry compared to indigenous agriculture. Furthermore, animal husbandry is not a lucrative profession, however, S. Lama explained:

> Our family consists of 13 members, and almost all of us are involved and are dependent on this occupation, yet given the number of people, we are self-sustainable and are capable of providing formal education for our children. This occupation till now has been profitable (Interview, November 6, 2024).

Despite a significant family size, her family succeed to sustain solely through animal husbandry, making them financially capable of providing formal education for their children. However, the over reliance on single occupation often also leads to setbacks, which causes monetary loss and moral dejection. She further added, "I have seen people and have experienced myself being discouraged from continuing our practices because of diseases like bird flu and *Khoret* (FMD Disease) which harms our profession significantly, but these are part of the occupation" (Interview, November 6, 2024). Zoonotic and other contagious viral diseases, such as *Khoret*, are recurring, and their outbreaks cause irreparable damage, often killing most of the farmed animals. This is the biggest challenge in terms of sustainability and maintenance for people involved in animal husbandry in the community.

3·3 Continuation Indigenous Practices Amid Foreign Employment

Modern employment effects on natural dyeing in the community are minimal, as those who are involved in it are small in numbers and have persevered despite various social and economic challenges over the years. As per the information by S. Tamang, art and traditional craft field is broad and while modern employment could have had pernicious effect on similar practices such as artistry, her experience with natural dyeing has not been so, as she stated "I cannot say for other indigenous practices, but natural dyeing in this community has not been affected by modern employment….This is something I enjoy doing…" (Interview, November 6, 2024). Also, a significant motive behind the continuation of natural dyeing in the area being impervious to modern employment is because of the engaged individuals, like S. Tamang and her mother, who have the utmost passion and interest in it. The availability of indigenous, organic resources despite their seasonal characteristics also keeps the involved people thoroughly engaged, instigating experimentation and development. Besides, the resources mostly do not demand purchase and are prevalent throughout the community, hence limiting substantial expenditure.

Unlike the traction that natural dyeing has gained, the interest in agriculture and animal husbandry have both declined, although many young whose family occupation is agriculture, seem to return to the community after abroad labor migration. However, this only seems like a last option, rather than of interest. N. Tamang himself had worked abroad for a while before returning to his household occupation. He explained:

> I went to work abroad in Malaysia for 11 months, but returned as I felt I was very distant from my home. I returned to my traditional occupation. Many of my friends have also done the same thing. Many have returned from Gulf countries to continue agriculture. People of my age group leave this occupation behind for modern or abroad employment, as the pay is high, but they are unable to find a home there, so they return. The biggest issue with this occupation is money, but people in my circle eventually have returned after earning some cash abroad or in Kathmandu. (Interview, November 6, 2024)

As mentioned above, many individuals in the community return and continue their household occupations as they find it difficult to acclimate themselves to a different culture and environment. The distance between them and their families also makes it difficult for them to completely fit into an unfamiliar environment and work earnestly. Even though the money offered, especially in Gulf nations, is appealing, most return and re-engage in traditional practice, where they feel most comfortable. Also, as mentioned by N. Tamang, these individuals have assimilated moderate amounts of money from their job abroad or in other cities of the country, usually Kathmandu, which results in the re-engagement process.

A. M. Tamang provided a similar account. He pointed out:

> Young people prefer to go abroad because our traditional occupation is just enough for survival; it is not profitable. But what I have also seen is that many individuals return and engage again in their traditional occupation, which gives me the belief that these traditional occupation can be revived. (Interview, November 7, 2024)

Both N. Tamang and A. M. Tamang have highlighted the interplay of foreign employment and traditional occupation. They both attribute migration to foreign lands for work although A. M. Tamang has expressed optimism, as many in the area do return after a spell abroad. He also stressed the importance of development through pragmatic measures-a responsibility of the government-such as practical education about agriculture to the young individuals in schools and proper market facilitation, which would enable them to stick to their traditional occupation.

Similarly, S. Lama stated that most of her friends and colleagues, who are of the same age, are still engaged in animal husbandry and traditional, hereditary occupations; however, she has discerned many individuals pursuing modern or foreign employment in Kathmandu and abroad. She said:

> Most of the people in my circle are still working in their traditional occupations, although I have seen young people from this village going abroad and to Kathmandu. But in my experience, my friends who grew up together with me are still involved in traditional occupations such as agriculture and raising animals. (Interview, November 6, 2024)

This is a prevalent occurrence among Tamang individuals of the community who are involved in agriculture or animal husbandry, where they have reverted to their traditional occupation after engaging in foreign or modern employment for a short duration. Although the case of S. Tamang differs due to the increasing fascination with natural dyeing in the modern context, the state of agriculture and animal husbandry seems to debilitate and deviate from their indigenous origin, showing effects of foreign/modern employment.

3·4 From Formal Education Marginalization to Digital Visibility

Formal education has had marginal to no influence on the participants. S. Tamang has studied up to grade 12, and during her academic journey, she does not recall any mention of indigenous knowledge, as it was not included in the academic curriculum. She recalled that there were instances in grade 11 and 12, where the students were encouraged to pursue business, but any pragmatic adoption or continuation of indigenous knowledge was left to be desired (Interview, November 6, 2024).

N. Tamang also went through similar situation where formal education has had an indifferent influence on them regarding their household occupation. He left school after grade eight, and during that time as he recalled, there wasn't anything substantial concerning indigenous agriculture that would influence or shape his perception. He said, "I have only read till class eight. I do not recall being taught anything about my community. Education hasn't had any influence on my life; everything about agriculture I have learned is through my father" (Interview, November 6, 2024). The case is the same with S. Lama, as she mentioned, "I attended school till class eight… It has not had any impact on my work or my heritage" (Interview, November 6, 2024).

From the perspective of an educator, G. S. Tamang adds:

> The curriculum that we teach has a vast gap between theory and practicality. We mostly focus on theoretical aspects rather than teaching practical knowledge. The curriculum lacks Indigenous knowledge or practical education, and because of it, many individuals are not very interested in traditional practices. Though our curriculum has educated many young people, the prioritization of Indigenous education is still missing. (Interview, November 7, 2024)

His statement reveals a substantial disconnect between formal education and the preservation and promotion of indigenous practice. The curriculum's exclusion has resulted in reliance on familial transmission rather than educational institutional learning. And consequently, familial transmission through family members has had a greater effect than formal education on the participants. The expertise of all the participants stems from intergenerational education. This is a result of formal education overlooking indigenous practices, indigenization of knowledge, and cultural significance, and implementing a rigid approach with a strong theoretical emphasis. Additionally, the curriculum's lack of practical education, with the absence of pragmatic indigenous-centric teaching, limits the engagement of Tamang individuals in traditional practices. He further adds, "the only effort that has been made in indigenizing education is the introduction of the *Matri Bhasa* (Mother Tongue) subject for students of grade one in the local school, which teaches students to speak the Tamang language and write in *Sambhota* script. Although the subject is discontinued from grade two onwards" (Interview, November 7, 2024).

G. S. Tamang also pointed out *Matri Bhasa* in the curriculum. He stated,

> …we introduced a subject on the Tamang language in grade one…We here are mostly from the Tamang community, but we ourselves are incompetent

> regarding our *Lipi* (script), so this is the basis for community preservation…there have not been any major initiatives taken by the government to support indigenous practices as of now, but the Bagmati state government has appropriated us financial means to preserve *Ghumbas* of the area. (Interview, November 7, 2024)

The Federal government has not provided any guidelines for the local government to implement, concerning the indigenization of education and promotion and sustainability of indigenous occupations, except for the facilitation of monetary support for the preservation of local *Ghumbas*. And given the statement by the Ward Chairperson, a lack of mutual understanding and communication seems discernible between the Federal government and the local government.

Indigenous practices are also connected with the social media. For S. Tamang, "social media such as Instagram and YouTube has helped me to expand natural dyeing's market through online marketing, since many individuals, especially from textile and clothing businesses in Kathmandu, have shown interest in it because of its biodegradable and non-toxic characteristics" (Interview, November 6, 2024). This demonstrates that social media is boosting indigenous occupational practices such as natural dyeing in gaining interest and demand from urban locations.

Not only online marketing and networking, but, social media has also helped to build upon her indigenous knowledge of natural dyeing to expand it. Online classes and YouTube have helped her in generating new colors from available indigenous and organic resources. She said, "social media has benefitted me a lot. I have learned a lot through the internet, building on my existing knowledge…. It has encouraged me and my mother as it has broadened our scope…" (Interview, November 6, 2024). Since a lot of technical information about natural dyeing was not passed down or was gradually forgotten, indigenous natural dyeing had a very limited scope, but as social media has introduced new methods that could be integrated to create a particular color, this has bolstered its purview as well as indigenous processes.

However, for N. Tamang, the influence of social media has been minimal. He adds, "I mostly use Facebook and TikTok for communication and entertainment purposes. Most of the farmers in the community use social media for entertainment" (Interview, November 6, 2024). The situation is similar for S. lama, as she remarked, "I just use social media for entertainment. I sometimes use Facebook and TikTok, but I have not used it for educational purposes… it has not influenced me in any form" (Interview, November 6, 2024). This showcases that benefit of social media are not similar to every individual though they live in same community. Similarly, the effect also varies from person to person.

4. Discussion and Conclusion

In the present context, no aspect of society can be immune to the influences of modernity and its values, and many pertinent studies have reached this conclusion regarding indigenous livelihood and practices. For instance, in one of the study by

Gurung (2024), it is found that transhumance pastoralism is declining due to an encroachment of modernity in the village and lack of state's engagement with the pastoralist community. This suggest that indigenous practices among Tamang could also decline if the state fails to oversee those needs. The participants of the study area relies substantially upon cash crops because of their profitability in the modern market, leading to a replacement of traditional crops. For them, although agriculture is the most accessible occupation, it has undertaken a notable shift towards cash crops such as strawberries and this has reduced the cultivation of traditional crops. The case is similar for animal husbandry since it has also adapted, driven by modern circumstances, to small-scale chicken farming rather than traditional buffaloes and cow rearing, however, without entirely abandoning them.

Kunwar and Pandey (2016) have presented the influence of tourism, another aspect of modernization, on the Tamang community residing in Gatlang by showcasing the commodification of traditional lifestyle. The influx of tourists in the area has led to the transition of a community, previously solely focused on animal husbandry and agriculture, to a site of considerable cultural exchange. These effects of modernization, although not tourism, but evolving modern market structure, modern employment, and foreign interest have played a pivotal role in transforming indigenous occupations trying align with the modern system and practices in the study area. As such, natural dyeing, an indigenous craft, continues to be practiced in the area with the application of traditional knowledge and making use of locally available resources. The occupation has also seen a revitalization in recent years because of foreign interest and gap in thorough skill transformation and high-end market requirements, placing it in a promising economic position. Despite that, natural dyeing profession in the study area is facing difficulties with respect to accessibility and participation because of inadequate knowledge and skills.

Furthermore, with concern to sustainability, natural dyeing foresees a prosperous future despite the scarcity of resources during off-seasons. Furthermore, despite youths migrating to Gulf countries and Kathmandu for higher income employment opportunities, many individuals return to the community and reintegrate into agriculture and animal husbandry after modest income accumulation, denoting a cycle of constant withdrawal and engagement. In the meantime, social media and the internet play a dual role such as, it has contributed to the marketing and networking of the occupation due to which foreign interest is attracted. But most farmers and members inside the community remain unaware of the tool's potential for occupational growth, showcasing unequal treatment of modern technology among people with differential background.

To conclude, the traditional occupations and practices are going through a significant transformation due to modern influences. Indigenous practices such as natural dyeing due to its non-toxic and environment friendly nature, is gradually taking its height to make its space in modernity. On the other hand, despite their efforts, other indigenous occupations such as traditional farming and animal husbandry have struggled to adapt to the modern environment, demonstrating unequal dealt of modernization.

References

Enz, C. A., "New Directions for Cross-Cultural Studies: Linking Organizational and Societal Cultures", ***Advances in International Comparative Management: A Research Annual***, 2, 1986, 173-189. https://hdl.handle.net/1813/72141

Gurung, D. B., "Effects of disintegration between Agriculture and Livestock Keeping on Transhumance Pastoralism in Gorkha", ***Khwopa Journal***, 6(2), 2024, 30-42.

Kunwar, R. R., & Pandey, C., "Tamang Heritage Trail: A study of Gatlang village in Rasuwa district of Nepal", ***The Gaze Journal of Tourism and Hospitality***, 6, 2016, 1-41. https://doi.org/10.3126/gaze.v6i0.15113

Liechty, M., ***Suitably Modern: Making Middle-Class Culture in a New Consumer Society***, Princeton, NJ: Princeton University Press, 2003.

Martinelli, A., ***Global Modernization: Rethinking the Project of Modernity (SAGE Studies in International Sociology)***, London: Sage Publications Ltd., 2005.

Sapkota, B. N., Adhikari, G. P., & Syangtan, P., "Socio-Demography of tamang community in Nepal", ***Research Journal of Padmakanya Multiple Campus***, 2(1), 2023, 1-10. https://doi.org/10.3126/rjpkmc.v2i1.62984

Semali, L. M., & Kincheloe, J. L. (eds.), ***What is Indigenous Knowledge? Voices from the Academy***, New York: Routledge, 2002.

Sharma, J., "Forms of Modernization and its Impact on Economy", ***Journal of APF Command and Staff College***, 7(1), 2024, 199-218. https://doi.org/10.3126/japfcsc.v7i1.67004

★

Article Received on May 30, 2026; Accepted on June 14, 2026

JOURNAL OF NATIONAL DEVELOPMENT

PEER REVIEWED, INDEXED & REFEREED Bi-ANNUAL INTERNATIONAL JOURNAL

ISSN 0972-8309

https://www.jndmeerut.org

[Vol. 39, No. 1 (Summer), 2026]

https://doi.org/10.62047/JND.2026.06.30.172

Criminal Investigation in Nepal: Jurisprudential and Judicial Perspective

Mohan Kumar Thapa

Superintendent of Police, Nepal Police, Commission for Investigation of Abuse of Authority (CIAA), Tangal (Nepal) E-mail:<thapampo@gmail.com>

Abstract

Criminal investigation constitutes the foundation of the criminal justice system. It also plays a, and prevents wrongful convictions, and has a pivotal role in protecting victims' rights, and ensuring the rule of law. This article explores the jurisprudential, legal, and judicial dimensions of criminal investigation and emphasis on the principles developed by the Supreme Court of Nepal. The study examines investigative framework under the Constitution of Nepal, 2015, the National Criminal Procedure Code, 2017, and the National Penal Code, 2017, together with 28 landmark judicial decisions related to criminal investigation. The paper emphasizes the transition from traditional investigation approach toward scientific, technology, and evidence based driven investigative practices. It identifies major challenges including weak evidence collection, inadequate specialization, wrongful prosecution, procedural negligence, insufficient victim centered approaches, and delays in investigation. The study also explores judicial directives emphasizing independent and professional investigations, protection of the rights of victims, proof beyond reasonable doubt, accused persons, accountability of investigators and prosecutors, and the need for compensation in cases of wrongful prosecution. The findings show that active criminal investigation involves trained personnel, specialized institutions, technological advancement, evidentiary standards, and strict adherence to due process. The article concludes that strengthening investigative capacity and implementing the jurisprudential principles established by the Supreme Court. It is essential for ensuring fair trials, enhancing public confidence, and improving the overall administration of criminal justice in Nepal.

Keywords

Criminal investigation, Criminal justice system, Evidence based investigation, Criminal jurisprudence, technology-driven investigation methods.

Centre For Studies of National Development, Meerut

Editorial Office : D-59, Shastri Nagar, Meerut - 250 004 (INDIA)

Ph. : 0121-2763765, +91-9997771669, +91-9412200765

14

Criminal Investigation in Nepal: Jurisprudential and Judicial Perspective

1. Introduction

The core objective of the criminal justice system is to conduct impartial investigation and fair trial of crimes, punish the offender according to the offense committed, provide justice to the victim, and protect the innocent. The administration of criminal justice is indispensable to provide peace and security in the state, guarantee the rule of law in the country, end impunity, and protect the citizens' right to live freely. The primary indicator for assessing the state of the rule of law is the implementation of criminal law itself, particularly the state of crime control and effective investigation. It is the fundamental responsibility and duty of the Nepal Police to work at the forefront to maintain peace and order through crime control and successful investigation, and to ensure the citizens' right to live peacefully as well as the crime victims' right to receive justice.

Crime prevention and investigation (Government of Nepal, 1955) is a vital professional function of the Nepal Police. Since its inception, the Nepal Police has been adopting various techniques and systems for crime prevention and investigation. To fulfill such a profound responsibility as crime investigation and control, the police force requires adequate resources and equipment. With the advancement of technology, there has been a massive shift in crime and criminal trends (Crime Pattern). New challenges are being encountered in the investigation of crimes such as economic and financial crimes, cybercrime, illicit firearms, human trafficking, illicit drugs, digital currency, insurance fraud, revenue evasion, securities fraud, online scams, money laundering, and organized crime (Adhikari, 2019). Success can only be achieved by incorporating modern technology into crime control and investigation, while timely modifying and improving certain traditional methods. By making the investigation system cutting-edge and tech-friendly, and by strengthening investigators at both individual and institutional levels, the results expected by the public can be delivered.

An analysis of past investigations reveals that they were traditionally confession-oriented, lacked scientific and tech-friendly approaches, and suffered from a deficiency in specialized services. Furthermore, there was a lack of institutional development in crime investigation, procedures were not witness - or victim-friendly, and a strategic action plan to strengthen crime investigation was absent. Currently, the Nepal Police is continuously fighting crime by executing initiatives such as capacity building and promoting the access and utilization of technology to modernize and scientific the crime control and investigation system. With the intention of bringing comprehensive reforms to the field of investigation, the Nepal Police introduced the concept of the Three-Year Crime Investigation and Control Action Plan (Crime Action Plan) starting in the fiscal year 2015/2016 (F.Y. 2072/073 B.S.), which continues to this day. The Nepal Police implemented this Crime Action Plan upon realizing the indispensability of rejuvenating the investigation system and instilling innovative thinking, skills, and concepts at both the investigator and institutional levels. Contemporary changes are also taking place within police working methodologies, which is essential. The Three-Year Crime Control and Investigation Action Plan play a remarkable role in ending the lack of planned development in crime investigation. It studies and analyzes the legal, systemic, and practical problems and challenges inherent in crime investigation. Ultimately, it ensures service specialization and the institutional development of data- and analysis-based, technology-driven investigation methods (Adhikari, 2019).

Nevertheless, crime investigation is a specialized art and science of uncovering facts, conducted by efficient, experienced, honest, and professional investigators on the foundation of modern technology and science. In several cases investigated by the police and registered in court, the Supreme Court has issued judicial strictures (comments) drawing the attention of the investigative and prosecutorial authorities due to ineffective investigation and prosecution. Efforts are underway to inform the police of such strictures through the Office of the Attorney General and to ensure the execution of court orders. The police also appear to be actively working toward ensuring that the errors and deficiencies pointed out in the judgments are not repeated. It can be believed that landmark judgments delivered by the Supreme Court will not only strengthen the task of crime investigation but also play a vital role in reforming the overall criminal justice system. Against this backdrop, this article discusses the matter in detail by adopting a descriptive method.

2. Objectives of the Study

This study is guided by the following three principal objectives:

1. To examine the jurisprudential, constitutional, and statutory framework governing criminal investigation in Nepal and its significance in ensuring justice, fairness, due process and the rule of law.
2. To analyze the judicial development of criminal investigation principles through the jurisprudence of the Supreme Court of Nepal.
3. To assess contemporary developments and challenges in criminal investigation and to suggest reforms for strengthening investigative mechanisms in Nepal in line with constitutional, statutory and judicial standards.

3. Research Methodology

This study adopts a qualitative doctrinal legal research design. It primarily focuses on the examination and interpretation of legal norms, statutory provisions, judicial precedents, and jurisprudential principles relating to criminal investigation in Nepal using entirely secondary sources of data like the reported decisions of the Supreme Court of Nepal relating to criminal investigation. The study also draws upon relevant statutory materials, particularly the Police Act, 1955, as well as publications of the Crime Investigation Department, the Office of the Attorney General, and other official legal sources. In addition, scholarly works, journal articles, commentaries, and jurisprudential writings on criminal investigation and criminal justice in Nepal were consulted to provide theoretical and analytical perspectives for the study.

The collected materials have been analyzed using doctrinal and analytical methods of legal research. Reported decisions of the Supreme Court of Nepal, relevant statutory provisions, official publications, and scholarly writings have been critically examined to identify the legal principles governing criminal investigation in Nepal. A jurisprudential approach has been employed to evaluate the theoretical foundations of criminal investigation, including issues of due process, evidentiary standards, accountability, and the protection of the rights of accused persons and victims. The study further utilizes case-law analysis to assess the contribution of the Supreme Court of Nepal in developing investigative standards and strengthening the administration of criminal justice through judicial interpretation and oversight.

4. The Investigative System of Nepal

Investigation is the scientific examination of any fact, incident, or circumstance, the objective of which is to uncover the truth. The state, through law, declares actions that harm or affect individuals, society, and the state as crimes, and provides for their punishment. Crime investigation is a step-by-step process conducted by an authorized agency with the objective of identifying crime, its nature, and the responsible individually, the involved offenders. Under iss process, activities such as collection, preservation, and examination of facts related to the crime are carried out. In other words, crime investigation is the act of meticulously documenting the crime scene by an authorized agency, discovering the available facts and physical evidence, collecting them, and establishing a logical connection between them (Khanal, 2082 BS). Nepalese law appears to be traditionally rooted in Hindu jurisprudence; however, Nepal currently practices a Common Law justice system. Following the promulgation of the Constitution of Nepal, 2015, the National Penal Code, 2017, the National Criminal Procedure Code, 2017, and the Criminal Offenses (Sentencing and Execution) Act, 2017 were enacted to bring comprehensive reforms to Nepal's criminal justice system. This has significantly modernized the fundamental practices within Nepal's criminal justice framework (Jha, 2025). Crime investigation is a complex task of a highly specialized nature. Utilizing available resources and technology, alongside maximizing knowledge, skills, and experience related to crime investigation, an investigating officer always remains and must remain dedicated to making the investigation evidence oriented.

To address the complexities of investigation that continue to emerge with changing times, a corresponding application of updated knowledge, skills, and technology is highly required (Adhikari, 2082 BS).

The primary objectives of criminal justice are to maintain peace, security, and the rule of law in society, punish offenders while discouraging recidivism, deliver justice to victims, and prevent the recurrence of crime. In Nepal's legal framework, an adversarial (prosecutorial) system has been adopted since 1960 A.D. (2017 B.S.). Under this adversarial system, the Government of Nepal itself acts as the plaintiff, appearing before the court on behalf of the victim to demand punishment, and providing the mechanism for defense. This system is explicitly defined by the Constitution of Nepal, the National Criminal Procedure Code, 2017, and prevailing criminal laws. The adversarial model is practiced in countries following the Common Law system, where crime investigation is conducted by the police. The accused possesses the right to silence. The accused receives the benefit of the doubt. The court acts as an umpire. The accused is presumed innocent until proven guilty. The burden of proving the charge rests entirely on the plaintiff (prosecution) (Khanal, 2082 BS). Except for a few exceptions, Nepal's investigative framework is generally based on the adversarial system. The National Penal Code, 2017 section 6 to section 32 outlines the general principles of criminal justice.

5. Landmark Judgments (Precedents) Relating to Investigation and Prosecution

Some of the landmark judgments in which the Supreme Court has issued strictures (comments) concerning crime investigation and prosecution are discussed below.

5·1 Advocate Jyoti Lamsal Poudel v. Government of Nepal, Office of the Prime Minister and Council of Ministers, *et al*

- The necessity of a separate, specialized police organization in Nepal is clearly visible. If the same police force is mobilized for riot control and general law and order duties while simultaneously executing crime investigations, it is practically impossible for them to conduct investigations that adhere to the recognized principles of criminal justice.
- A crime investigator must have a thorough understanding of the recognized principles of criminal justice, the specific types of evidence admissible in a court of law, and the fundamental rights guaranteed to a suspect within the criminal justice framework.
- Investigators must remain fully updated on the latest global developments in evidence law and the evolving arts of crime investigation.
- Crime investigation is an extremely complex and specialized task. Investigative personnel must possess specialized knowledge, experience, and competence across all investigative arts. This includes protecting and lifting evidence from crime scenes or elsewhere, preserving it, sending it to laboratories for testing, uncovering the chain of events from the modus

operandi to the commission of the crime, interrogating suspects, and accurately interpreting laboratory reports.

- If a separate, specialized police organization is not formed and investigations continue under the current police structure, the primary focus will inherently shift to maintaining peace, leading to unsatisfactory crime investigations. This risks the destruction of evidence and replaces crime investigation with the police's core significance. So, the current system must be transformed to establish a specialized police organization for crime investigation.
- There is no room for negligence, deficiencies, errors, or bad faith on the part of investigators and prosecutors. If any such errors occur, the Government must take detailed responsibility.
- Crime investigation is a distinct art that strictly demands experienced, trained, competent, and professional personnel. Besides a minimum qualification, an investigator must possess comprehensive knowledge of criminology, law, and criminal investigation techniques. (Advocate Jyoti Lamsal Poudel v. Government of Nepal, 2067 BS)

5·2 Rajendra Maharjan v. Government of Nepal

- Without definitively verifying the identity of "Chaku Maharjan," the alternative individual, the defendant Rajendra Maharjan was indicted and labeled an offender based purely on guesswork. Failing to ascertain the exact identity of a defendant creates a severe risk where the wrong person is prosecuted and punished. In the absence of absolute certainty regarding identity, a person cannot be prosecuted or deemed an offender; hence, the defendant Rajendra Maharjan is acquitted of the charges in this case (Rajendra Maharjan v. Government of Nepal, 2007).

5·3 Rakesh Kumar Singh v. Government of Nepal

- For protecting the life and property of citizens, arresting criminals, and conducting investigations, the police may enter citizens' homes in accordance with the law; there is no dispute about that. However, the police do not possess any authority to enter a citizen's home without cause and commit a crime themselves (Rakesh Kumar Singh v. Government of Nepal, 2007).

5·4 Government of Nepal v. Magare Khan, *et al.*

- Solid and beyond-reasonable-doubt evidence must be collected against an individual in a criminal offense. Only then can the State file an indictment and initiate prosecution. If the State indicts someone for a criminal offense without evidence and the accused is subsequently acquitted, the Attorney General must not file an appeal solely to harass the accused.
- No matter how grave the crime, how strong the suspicion, how bad the character and conduct, or how suspicious the activities may be, these factors can never take the place of legal proof.
- In criminal offenses, the plaintiff (prosecution) must first prove the fact that a crime has been committed, namely, the Corpus Delicti and only after

establishing that fact must they prove that the indicted individual is the one who committed the offense (Government of Nepal v. Magare Khan, 2009).

5·5 Suntali Dhami v. Office of the Prime Minister and Council of Ministers, *et al.*

- Under our system, a victim cannot initiate a criminal prosecution on their own. The victim must entirely depend on the state-administered crime investigation, police and public prosecutors.
- When a victim files a complaint with the police detailing their victimization along with the available evidence, and the police and public prosecutors decide not to pursue or prosecute the case, the victim is completely deprived of their fundamental right to receive justice (Suntali Dhami v. Office of the Prime Minister and Council of Ministers, 2009).

5·6 Government of Nepal v. Kedar Chand Khanal

- Holding the defendants guilty in the absence of evidence beyond a reasonable doubt would run entirely contrary to the universally recognized principles of criminal justice (Government of Nepal v. Kedar Chand Khanal, 2006).

5·7 Government of Nepal v. Kalawati Subedi

- In a criminal case, the plaintiff must first prove beyond a reasonable doubt that an offense has been committed. Only after the commission of the crime is established beyond a reasonable doubt can a case be initiated and charges filed against an individual, and subsequently, the charge against the indicted person must also be proven beyond a reasonable doubt.
- The State must not indict and prosecute an individual based solely on mere suspicion, hearsay evidence, or evidence that is legally inadmissible in a court of law (Government of Nepal v. Kalawati Subedi, 2006).

5·8 Government of Nepal v. Dhaula Devi Bista

- Simply arresting a person, keeping them in detention under a criminal charge, and recording their statements does not make an investigation reliable or credible. Once an accusation is made, its veracity must be thoroughly verified through active testing during the investigation (Government of Nepal v. Dhaula Devi Bista, 2009).

5·9 Nanda Devi Joshi v. Government of Nepal

- A First Information Report (FIR) is merely a medium of notification given regarding an incident. It can play a supportive role in evidence collection, but it does not possess conclusive significance on its own. It is not incontrovertible or independent evidence (Nanda Devi Joshi v. Government of Nepal, 2009).

5·10 Government of Nepal v. Yagya Bahadur Thapa

- Unless a First Information Report (FIR) is verified considering other collected evidence or corroborated by independent proof, the FIR cannot be accepted as independent evidence on its own. Until it is corroborated by other evidence, an FIR serves merely as a supportive tool during a crime investigation. Therefore, before accepting an FIR as evidence against any accused individual, its judicial examination is essential.

- Unless a defendant's self-incriminating confession made during an investigation is independently corroborated by other evidence, it is not justifiable for a court to convict them based solely on that confession (Government of Nepal v. Yagya Bahadur Thapa, 2009).

5·11 Sita Kaini v. District Police Office, Tanahun

- The mere fact that the individuals named in the First Information Report (FIR) are employed in the Nepali Army cannot be treated as a normal justification for failing to conduct an effective investigation into the subject matter of the complaint for an extended period (Sita Kaini v. District Police Office, Tanahun, 2009).

5·12 Bikram Maharjan v. Government of Nepal

- In a situation where the plaintiff (prosecution) has failed to present any factual, solid, or corroborative evidence to prove that the Bikram Maharjan mentioned in the charge sheet is the exact same appellant Bikram Maharjan who was arrested and brought in, it is impossible to assert solely on the basis of the informant's First Information Report (FIR) that this appellant was involved in killing the deceased under a serious criminal charge such as homicide, without any substantive grounds or proof (Bikram Maharjan v. Government of Nepal, 2009).

5·13 Jhalanath Neupane v. Government of Nepal

- A state-prosecuted criminal case is not the sole concern of the plaintiff, the Government of Nepal; rather, it is inextricably linked to the victim, the entire society, the courts, and the overall justice system of the country.
- Simply because the plaintiff exhibits negligence in an investigation with the intent to show favoritism toward a defendant, the direct consequence of each such instance of negligence cannot automatically result in the acquittal of the defendant (Jhalanath Neupane v. Government of Nepal, 2012).

5·14 Bhim Bahadur Basnet v. Government of Nepal

- The investigator plays an exceptionally vital role in the administration of justice. It is the primary responsibility of the prosecution to independently investigate and analyze facts and evidence, fulfill every legal procedural requirement, and gather incontrovertible circumstantial evidence that forms an unbreakable chain of facts (Bhim Bahadur Basnet v. Government of Nepal, 2019).

5·15 Government of Nepal v. Safiur Rahman Musalman

- A First Information Report (FIR) acquires probative or evidentiary value only when the witness' testimony and evidence connected to the circumstances of the incident corroborate the details stated in the FIR (Government of Nepal v. Safiur Rahman Musalman, 2020).

5·16 Tejindra Neupane v. Jhapa District Court

- No official entrusted with the legal responsibility of investigation or prosecution shall maliciously investigate or bring an indictment with the intention of falsely implicating an innocent person or shielding an actual offender (Tejindra Neupane v. Jhapa District Court, 2021).

5·17 Govinda Upadhyay v. Government of Nepal

- Where an investigation is initially launched into a specific offense but, in the course of the inquiry, indications of a different offense emerge, prevailing Nepalese law does not prohibit the prosecution from filing an indictment for the newly uncovered offense, provided the suspect is given an opportunity for defense and additional evidence is collected as required (Govinda Upadhyay v. Government of Nepal, 2021).

5·18 Bhim Bahadur Tamang v. Sindhupalchok District Court

- The prosecution must collect the necessary evidence and clarify the identity of the accused based on that evidence before filing a case. It is the legal obligation of the investigator and the prosecutor to present concrete evidence showing that the person arrested later is indeed the accused person, according to the facts and circumstances. Accusing and arresting someone is not merely a matter of fulfilling a formality. Without official proof, it is not in accordance with the law to casually claim that two individuals are the same person when the father's name and address of the accused are completely different (Bhim Bahadur Tamang v. Government of Nepal, 2021).

5·19 Ram Kumar Karki vs. Government of Nepal

- A directive order shall be issued to take the necessary action toward drafting appropriate legislation and providing just and humane compensation, in accordance with the prior orders of this Court. This process must involve studying and reflecting upon the legal frameworks of other international democratic nations, as well as consulting with legal and judicial experts and relevant subject matter specialists regarding individuals who were detained due to flawed investigations and wrongful prosecutions but were ultimately acquitted upon final judgment of the case (Ram Kumar Karki v. Government of Nepal, 2021).

5·20 Government of Nepal vs. Sakwa Sah Teli

- In criminal offenses, the claims made against an accused individual must be substantiated by other independent evidence; a charge against the accused cannot be established solely on the ground that the defendant is absconding. If a charge were to be proven merely based on being absconding, the essence of justice would be shattered, and it would cause a severe adverse impact on the investigation process itself (Government of Nepal v. Sakwa Sah Teli, 2021).

5·21 Government of Nepal vs. Bishal Gharti Magar

- Since an accused possesses both the right to remain silent and the right to defend against the charges with basis and reasons, finding them guilty solely on the ground of non-cooperation with the judicial process would result in a decision contrary to the essence of justice and the prevailing legal system (Government of Nepal v. Bishal Gharti Magar, 2021).

5·22 Ramesh Sah vs. Government of Nepal

- During an investigation, factual and authentic evidence must be collected against a suspected person. Fabricated evidence must not be created. A prosecution and proceedings initiated by creating fabricated evidence render an individual's right to a fair trial ineffective. In fact, even if the prosecution or the State wins a case through an indictment based on fabricated evidence, the criminal justice system ultimately loses. Conversely, in a case initiated by adhering to a fair process, whether success is achieved against the accused or not, the justice system never suffers a defeat. Under the criminal justice system we have adopted, one cannot even contemplate an unexpected scenario where a case is won but justice itself must be lost.
- To take necessary initiatives to ensure a condition where no false cases can be fabricated and prosecuted against innocent individuals in the future, and where defendants who fall victim to false prosecution shall receive compensation if such an event does occur (Ramesh Sah v. Government of Nepal, 2022).

5·23 Nandakali Budha Magar *et al.* vs. Chief District Officer Madhav Prasad Ojha, District Administration Office Kanchanpur *et al.*

- If an investigation is left uncompleted indefinitely or if a prosecution is not initiated under the pretext of an investigation even when a human murder has occurred, the preservation and respect for constitutionally guaranteed human rights will be rendered meaningless. In a situation where people are victimized after losing members of their family, if the state fails to investigate to identify and take action against the perpetrators despite a complaint being lodged, or if it conducts a weak and flimsy investigation, or causes long delays in investigation, or exhibits negligence, or harbors an intention to completely avoid prosecution in the name of investigating, people's faith and trust in the rule of law may falter. In a country governed by a constitution and laws, such actions cannot be acceptable (Nandakali Budha Magar *et al.* v. Chief District Officer Madhav Prasad Ojha, 2016).

5·24 Advocate Amrit Prasad Shrestha vs. Office of the Prime Minister and Council of Ministers *et al.*

- A directive order is hereby issued directing to enact a law that includes provisions for just compensation by the State for the period spent in detention, in cases where an accused individual has been forced to remain in detention due to a faulty investigation and wrongful prosecution but is ultimately acquitted upon the final disposal of the case (Advocate Amrit Prasad Shrestha v. Office of the Prime Minister and Council of Ministers, 2018).

5·25 Government of Nepal vs. Shafiq Mohammad Khan *et al.*

- Since a flimsy investigation creates the risk of raising questions regarding faith and trust in the judicial system, the prosecution side must always remain vigilant (Government of Nepal v. Shafiq Mohammad Khan, 2018).

5·26 Government of Nepal vs. Sabuddin Miya

- To draw the attention of the Office of the Attorney General, directing the supervisory office to pay special attention to preventing errors of this nature where a single prosecution was brought instead of filing cases through separate indictments and to emphasize the effectiveness of prosecution (Government of Nepal v. Sabuddin Miya, 2016).

5·27 Khadga Bahadur Gurung alias Bishal vs. District Police Office Nawalparasi

- To write and send letters to the Police Head Quarters, the Office of the Attorney General, the Supreme Court Administration, the Judicial Council, and the Judicial Service Commission to initiate departmental disciplinary action against the officers and decision-makers who acted contrary to the law by disregarding the mandatory legal provisions requiring that the identity of children must be kept confidential, that children and adults must be prosecuted and tried separately, and that cases involving children must be heard exclusively by a Juvenile Bench (Khadga Bahadur Gurung alias Bishal v. District Police Office Nawalparasi, 2022).

5·28 Khul Bahadur Kunwar vs. District Police Special Court Kathmandu *et al.*

- In an unfortunate event where an individual is needlessly forced to spend time in prison because of the indifferent acts and proceedings of state agencies despite being innocent. So, the state must provide compensation to the petitioner (Khul Bahadur Kunwar v. District Police Special Court Kathmandu, 2016).

6. Jurisprudential Principles Established by the Supreme Court

A critical and in-depth review of the judgments delivered in the 28 cases identified above explains that the Supreme Court has developed a clear jurisprudence relating to criminal investigation and prosecution. The court has explained the powers, legal duties, and limitations of investigative and prosecutorial authorities. It has established important principles aimed at ensuring effective, impartial, and legally compliant criminal justice processes. The principal jurisprudential doctrines emerging from these judgments are summarized below:

- Investigators must be experienced, trained, professional, and knowledgeable in criminology, law, and investigative techniques.
- Crime investigation requires a specialized and separate investigative police organization.

- There should be no negligence, bad faith, misconduct, or procedural deficiencies in investigation and prosecution.
- Technology should be integrated into crime investigation, and investigative agencies must be technologically empowered.
- Disciplinary action should be taken against officials who act contrary to law.
- Government must bear responsibility for investigative and prosecutorial failures.
- Investigators must not frame innocent people, fabricate evidence, or protect actual offenders.
- Criminal charges must be supported by corroborative, credible, and admissible evidence.
- Weak investigations undermine the court's ability to identify the actual offender.
- Mere suspicion, hearsay, and legally inadmissible evidence cannot justify prosecution.
- Guilt must be established beyond a reasonable doubt.
- The identity of the accused must be clearly established through reliable evidence.
- The accused has the right to silence and the right to defense.
- The problem of proof lies upon the prosecution.
- Non-cooperation by the accused cannot, by itself, justify conviction.
- Courts must decide cases based on evidence presented and must not create evidence on their own.
- An FIR alone is insufficient to establish guilt without independent corroborative evidence.
- It serves only a supportive role in investigation and evidence collection.
- A FIR is primarily an informational document and not substantive evidence.
- Failure of police and prosecutors to pursue a legitimate complaint deprives victims of their fundamental right to justice.
- Delayed, incomplete, or intentionally weak investigations undermine victims' rights and public confidence in the justice system.
- Individuals wrongfully detained or prosecuted due to faulty investigations should receive fair and humane compensation.
- Victims of false prosecution based on fabricated evidence must be compensated by the State.
- Effective, timely, and lawful investigation is essential for the protection of constitutional rights and the rule of law.
- Weak investigations erode public trust and confidence in the criminal justice system.
- Investigation and prosecution must be conducted with utmost diligence to maintain the integrity of justice.

7. Conclusion

Investigation is the backbone of criminal justice. The investigation of an offense is the foundational basis for prosecution, and prosecution serves as the gateway to the adjudication of justice. Prosecution becomes robust only when the investigation is strong and scientific. The police are not merely the initial investigators but are also decision-makers. Therefore, it is imperative to conduct accurate and error-free investigations. When the prosecution is strong, justice is properly dispensed, ensuring that the victim receives justice and the accused receives punishment, thereby establishing the rule of law. In this regard, it must be understood that the State's investment in this mechanism is fundamentally for the preservation of the rule of law. Enacted with the expectation of bringing significant reforms to crime investigation and prosecution, new statutes including the National Penal (Code) Act, 2017 (2074 BS) and the National Criminal Procedure (Code) Act, 2017 (2074 BS) explicitly point toward a scientific and objective framework for investigation and prosecution. This is expected to reform the overall criminal justice administration of Nepal. If crimes are not properly investigated and prosecuted, then no matter how excellent the laws are, or how independent and competent the judiciary is, the ultimate objective of the criminal justice administration cannot be fulfilled. The investigative phase is extremely serious in criminal justice administration. It is imperative to enhance the equipment of the agencies, digital technology, and physical infrastructure for investigating and prosecuting offenses. Furthermore, the professional competence and capacity of the personnel working within those agencies. It is imperative to manage with intensified institutional vigilance to prevent the relapse of the deficiencies, errors, and shortcomings stressed by the Supreme Court in crime investigation and prosecution. The Nepal Police has recently revealed its three-year Strategic Plan (2026-2028), standing citizen friendly and people centric law enforcement services and a technology friendly institutional transformation in operational priorities. This strategic plan puts forward agendas such as providing efficient and prompt services to the people through legal reform, policy, and utilization of modern technology. Similarly, specialization in crime investigation, personnel services, and enhancing effectiveness in crime prevention. It also emphasizes developing motivated, skillful and ethical human resources, conducting tech-driven crime investigations, reinforcement physical infrastructure and the working environment preparing a skilled workforce with high morale, reinforcing physical infrastructure and resources. It also deploys information technology and Artificial Intelligence. If this strategic plan is effectively implemented, it is believed that it will lead to effective crime investigations in Nepal. It will strengthen the overall criminal justice system in the country.

References

Adhikari, O. P., “The importance and application of luminol in crime investigation, ***CID Magazine***, 34, 2082 BS, Crime Investigation Department, Nepal Police Headquarters.

Adhikari, P., “Brief explanation of the three-year crime control and investigation action plan, ***Prosecution Journal***, 2(1), 2019, 135-143, Office of the Attorney General.

Advocate Jyoti Lamsal Poudel v. Government of Nepal, Office of the Prime Minister and Council of Ministers, ***NKP*** 2067 B.S., Vol. 11, Decision No. 8507 (Supreme Court of Nepal).

Bhim Bahadur Basnet v. Government of Nepal, ***NKP*** 2075, Vol. 7, Decision No. 10048 (Supreme Court of Nepal).

Bhim Bahadur Tamang v. Government of Nepal, ***NKP*** 2077, Vol. 7, Decision No. 10528 (Supreme Court of Nepal).

Government of Nepal v. Bishal Gharti Magar, ***NKP*** 2077, Vol. 12, Decision No. 10616 (Supreme Court of Nepal).

Government of Nepal v. Kalawati Subedi, ***NKP*** 2063, Vol. 9, Decision No. 7768 (Supreme Court of Nepal).

Government of Nepal v. Kedar Chand Khanal, ***NKP***, 2063, Vol. 6, Decision No. 7712 (Supreme Court of Nepal).

Government of Nepal v. Safiur Rahman Musalman, ***NKP***, 2076, Vol. 9, Decision No. 10350. (Supreme Court of Nepal).

Government of Nepal v. Sakwa Sah Tel, ***NKP***, 2077, Vol. 12, Decision No. 10607. (Supreme Court of Nepal).

Government of Nepal, ***Police Act, 2012 (1955)***, Government of Nepal, 1955.

Govinda Upadhyay v. Government of Nepal, ***NKP***, 2077, Vol. 6, Decision No. 10514 (Supreme Court of Nepal).

Jha, R. K., "Nepal's original criminal justice system: Jurisprudence and judicial perspective", ***Nyaya Vatika***, (4), 2025, 286. Nepal Bar Council.

Jhalanath Neupane v. Government of Nepal, ***NKP***, 2071, Vol. 9, Decision No. 9251 (Supreme Court of Nepal).

Khadga Bahadur Gurung alias Bishal v. District Police Office Nawalparasi (2022, June 30). Case No. 078-WH-0191 (District Police Office Nawalparasi).

Khanal, G. "The backbone of criminal justice: The interrelation between investigation and prosecution", ***CID Magazine***, 71, 2082 BS, Crime Investigation Department, Nepal Police Headquarters.

Khanal, G., "The backbone of criminal justice: The interrelation between investigation and prosecution", ***CID Magazine***, 58, 2082 BS, Crime Investigation Department, Nepal Police Headquarters.

Khul Bahadur Kunwar v. District Police Special Court Kathmandu, ***NKP***, 2076, Vol. 4, Decision No. 10250 (Supreme Court of Nepal).

Rajendra Maharjan v. Government of Nepal, ***NKP***, 2064, Vol. 1, Decision No. 7810 (Supreme Court of Nepal).

Rakesh Kumar Singh v. Government of Nepal (on the First Information Report filed by Himali Gole), ***NKP***, 2064, Vol. 1, Decision No. 7810 (Supreme Court of Nepal).

Ram Kumar Karki v. Government of Nepal, ***NKP***, 2077, Vol. 10-11, Decision No. 10593 (Supreme Court of Nepal).

Ramesh Sah v. Government of Nepal, ***NKP***, 2079, Vol. 5, Decision No. 10872 (Supreme Court of Nepal).

Suntali Dhami v. Office of the Prime Minister and Council of Ministers, ***NKP***, 2068, Vol. 1, Decision No. 8541 (Supreme Court of Nepal).

Tejindra Neupane v. Jhapa District Court, ***NKP***, 2077, Vol. 2, Decision No. 10436 (Supreme Court of Nepal).

★

Article Received on June 03, 2026; Accepted on June 19, 2026

JOURNAL OF NATIONAL DEVELOPMENT

PEER REVIEWED, INDEXED & REFEREED Bi-ANNUAL INTERNATIONAL JOURNAL

ISSN 0972-8309

https://www.jndmeerut.org

[Vol. 39, No. 1 (Summer), 2026]

https://doi.org/10.62047/JND.2026.06.30.186

Environmental Governance and Infrastructure Development in Protected Areas: Rethinking the Balance between Conservation and the Right to Development

Padma Prasad Pandey

Ph.D. Research Scholar in Law, School of Law and Constitutional Studies (SLCS), Shobhit Institute of Engineering & Technology (NAAC 'A' Grade Accredited Deemed-to-be University) Meerut, Uttar Pradesh (India)

E-mail:<pdmpandey@gmail.com>

Abstract

Infrastructure development and environmental protection has emerged as one of the most intricate policy debate issues in modern environmental politics. Although the protected areas are key for biodiversity conservation and ecological sustainability, the balance between the necessity of economic growth and infrastructure development and environmental sustainability is a major challenge are facing by the developing countries. Sometimes, the strict environmental policies can restrain development opportunities in the developing countries where infrastructure development is desperately required to promote economic transformation and social justice. This article explores the theoretical and legal basis of environmental governance with regard to developments in the protected areas. It is a critical analysis of the changing relationship between environmental governance, sustainable development, the right to development in the international environmental law. The article asserts that the protected areas are not supposed to be regarded as taboo zones in terms of the development activities. Rather, the environmental governance ought to embrace a more malleable regulatory framework that enables the infrastructure development that are regulated and at the same time ensure ecological integrity. The paper also looks at the international legal principles like sustainable development, environmental justice and the common but differentiated responsibilities. The article propose a balance approach which will allow the infrastructure development within the protected areas under environmental governance measures.

Keywords

Environmental governance, Environmental justice, Infrastructure development, Protected areas, Right to development, Sustainable development.

Centre For Studies of National Development, Meerut

Editorial Office : D-59, Shastri Nagar, Meerut - 250 004 (INDIA)

Ph. : 0121-2763765, +91-9997771669, +91-9412200765

15

Environmental Governance and Infrastructure Development in Protected Areas: Rethinking the Balance between Conservation and the Right to Development

1. Introduction

The issue of environmental governance and economic development are normally understood as mutually exclusive policy goals. The governments over the world are under mounting pressure to balance economic development with the sustainability of the environment. This is very critical in developing nations where infrastructural development is crucial to boost the economic growth and by such measure to alleviate poverty. The national development requires roads, hydropower facilities, transport networks and communication systems but these development projects often overlap ecologically sensitive areas.

Protected areas are known to be one of the most important tools of protecting biodiversity. Wildlife reserves, conservation areas, and national parks are important in the conservation of ecosystem, biodiversity and ecological stability. Nonetheless, stringent conservation law and policy can create hurdles for the development activities in developing nations where economic growth is urgently needed. Previously, preservationist strategies have shaped conservation policies in favor of ensuring that human activities be barred within the protected areas for the the ecological preservation. That strategy was mostly evolved in developed nations where industrialization had already been achieved in high levels by the time major issue of environmental protection became a policy issue.[1] In the cases where the same conservation models were adopted in developing countries, it would sometimes result in tensions arising between the environmental protection and the need to develop the nation.

The third world countries are frequently in a twofold predicament. On the one hand, they are compelled to achieve economic growth so as to alleviate poverty and enhance the living standards of the people. On the other hand, they are supposed to adhere to international environment standards that focus mainly environmental protection. Such a conflict raise critical questions of environmental justice and global equality in terms of economic prosperity.

The international environmental law has been appreciating the necessity of maintaining a balance between environmental protection and economic development. Sustainable development was developed as one of the efforts to balance both these goals. The principle implies that development must be geared towards satisfying the needs of the present generation without prejudice to the future generations to satisfy their needs.[2]

However, the effective application of sustainable development is still a challenge especially where the development activities are initiated in the protected area. The schemes of environmental governance should thus achieve avenues through which development can be encouraged and ecological sustainability can be realized at the same time.

This paper discusses the concept of environmental governance based on its legal and theoretical framework with reference to development projects in the protected areas. It claims that the protection of the environment and the infrastructure development should not be regarded as the opposite goals. In its place, governments ought to implement holistic governance methods that would enable development projects to take place within a balanced framework of environment protection mechanism.

2. Objectives of the Study

This study is guided by the following three principal objectives:

1. To examine the theoretical, legal and governance frameworks relating to environmental protection, sustainable development and the right to development in the context of protected areas.
2. To analyze international legal standards and global practices concerning infrastructure development within protected areas and the challenges of balancing conservation and development objectives.
3. To evaluate contemporary environmental governance approaches and propose recommendations for harmonizing biodiversity conservation with developmental aspirations and environmental justice.

3. Research Methodology

This study adopts a doctrinal and analytical approach to legal research. The research is primarily based on the examination of international legal instruments, soft-law documents, judicial principles, policy frameworks and scholarly literature relating to environmental governance, sustainable development, protected areas, biodiversity conservation and the right to development. Relevant international treaties, declarations, conventions and environmental policy instruments have been critically analyzed to identify the legal and normative principles governing development activities within protected areas.

The study further employs a normative and comparative approach to evaluate the evolving relationship between conservation objectives and developmental imperatives. Comparative references to international experiences and global practices have been utilized to understand different governance models adopted for infrastructure development in environmentally sensitive areas. Particular attention has been given to environmental impact assessment, the precautionary principle, sustainable use of natural resources, community-based conservation, environmental justice, and the principle of common but differentiated responsibilities.

The research is qualitative in nature and relies exclusively on secondary sources, including international legal instruments, reports of international organizations, academic books, journal articles, policy documents and other relevant literature. Through critical analysis and synthesis of these materials, the study seeks to develop a balanced framework for reconciling conservation objectives with the right to development within the broader paradigm of environmental governance.

4. Concept of Environmental Governance

Environmental governance is a set of legal frameworks, institutions, policies and decision making procedures that govern human activities in relation to the natural environment. It includes domestic and global systems that facilitate environmental sustainability. This idea came into the limelight of the late twentieth century when environmental concerns started to become more global concern. The problems of climate change, biodiversity degradation, and deforestation proved that the environmental problems cannot be dealt with at the national level only.

Environmental governance thus entails collaboration of the governments, international organizations, civil societies institutions and local communities. The United Nations Environment Programme (UNEP) defines Environmental governance as policy, rules and norms that regulate the human behaviour and it also concerns those with decision making, decision making process, scientific information to make the decisions and the role of the public and key stakeholders in the decision making.[3]

One of the main aspects of the contemporary environmental governance is the inclusion of the environmental concerns into the economic development policies. Governments are coming to appreciate that environmental sustainability should be integrated in development planning as opposed to environmental protection being a distinct area of policy. Accountability, transparency and participation in the decision making process are also highlighted in environmental governance. The involvement of people especially in matters of the environment is crucial since the policies that govern the environment usually have a direct impact to the society.

Institutional coordination, legal framework and scientific knowledge is hence necessary to achieve effective environmental governance. These aspects can contribute to the assurance of the policies on development with ecological sustainability.

5. Sustainable Development as a Governing Principle

Sustainable development has emerged as one of the key concepts of international environmental law. The contemporary definition of sustainable development came in the 1987 on the report ‘Our Common Future’ also called as

Brundtland Report published by the World Commission on Environment and Development.[4] The report defined sustainable development as development that satisfies the needs of the present generation without impoverishing the capacity of the future generations to satisfy their needs. This concept gives more focus to environmental protection through economic and social development.

Sustainable development was subsequently reiterated in Rio Declaration on Environment and Development (1992) which defined some principles of environmental governance.[5] These principles are precautionary principle, public participation, environmental impact assessment and integration of environmental protection into the development processes.

Despite the fact that sustainable development offers a theoretical platform through which the issue of development and environmental conservation can be balanced, the application of the concept in reality is normally fraught with complicated policy making. The governments are left to figure out the possibility of advancing economic growth and also ensuring that environmental degradation is irreversible.

Sustainable development in the framework of the protected areas must be a balanced measure of providing development activities under regulatory framework.

6. The Right to Development

Right to development is another principle that is pertinent to environmental governance. The concept has been introduced in international law to curb the imbalances in the world economies between the developed and developing nations. In 1986, the United Nations general assembly passed the declaration on the right to development, which acknowledged development as a basic human right.[6] The declaration underscores the fact that every country is entitled to engage in, contribute, and benefit economic, social, cultural, and political development.

The right to development has considerable implications to developing countries. Poverty, low infrastructure development and dependency on the economy remain an issue in such countries. The presence of restrictive environmental policies that reduce the opportunities of development may, therefore, create some concerns regarding equity and economic justice.

The right to development implies that the environmental governance must not deny the ability of third world countries to pursue the development goals. Rather, sustainable development should be achieved through international cooperation, which may be in terms of financial aid, technology transfer and capacity building.

This view supports the principle that development activities in the protected areas are not to be automatically banned. Instead, they need to use 'governance' frameworks that permit responsible development and safeguard ecological systems.

7. International Legal framework Relating to Protected Areas and Environment.

7·1 International Environmental Law and Protection of Biodiversity

The international environmental law has evolved greatly over the last few decades following increased concerns on environmental degradation and loss of biodiversity. The advent of global environmental governance indicates the appreciation that environmental issues cannot be solved by individual nations alone and thus have to be addressed by the international community.

The growing importance of conservation of biodiversity as a priority in the international arena has been one of the most important changes in international environmental law. Biological diversity is crucial in ensuring ecological balance and human well being. Some of these services that are critical in ecosystems include climate regulation, water purification, soil fertility and food production.[7]

Biodiversity, though very important, is becoming a threatened species due to deforestation, destruction of habitats, climate change, and unsustainable developmental activities. These problems have led the international community to embrace legal tools that are meant to safeguard biodiversity and to encourage sustainable exploitation of natural resources.

The Convention on Biological diversity (CBD) is one of the most significant international treaties in this field that was adopted in the United Nations Conference on the environment and development in 1992.[8] The convention comes up with three main goals: preservation of biological diversity, sustainable utilization of its elements, and equitable and fair distribution of the benefits that come from genetic resource.

The CBD acknowledges the sovereignty of states over their natural resources but it pushes them to enact policies that would encourage conservation and sustainable use. Notably, the convention does not ban development activities but only focuses on the fact that these activities must be carried out in a way that would reduce the amount of environmental damage and would be sustainable. To the developing countries, the CBD recognizes the need to balance conservation and the development requirements. Article 20 of the convention urges developed nations to render financial resources to help the developing nations adopt biodiversity conservation policies.[9]

Therefore, the international environmental law does not give an absolute restrictions to the development activities in the protected areas. Rather, it urges states to embrace regulatory framework that meet the combine goal of conservation and socio-economic development.

7·2 International Environmental Policy Relating to Protected Areas

Protected areas have been largely regarded as a tool of biodiversity conservation. These are national parks, wildlife reserves, conservation areas and marine protected areas which are set up to preserve ecosystems and species. The idea of the protected areas has been changing considerably over the years.

The original models of conservation were founded on stringent preservation strategies which did not allow human activities to be incorporated in the landscapes. Nevertheless, current conservation approaches have realized the importance of incorporating conservation in sustainable development.

International Union of Conservation of Nature (IUCN) has come up with a generally accepted standard on how to classify and manage the areas of protection.[10] Under the IUCN framework, the protected areas can be classified into various types of management as nature reserve to a place where sustainable use of resources can be undertaken.

This strategy indicates the realization that conservation policy should be modified to suit different socio-economic situations. In third world countries, protected areas are usually surrounded by human settlements and economic activities. Thus, the conservation policies should take into account the interests of local communities and the national development priorities.

7·3 International Law of Environmental Impact Assessment

Environmental Impact Assessment (EIA) is one of the most significant instruments that have been incorporated to consider environmental issues in the course of development planning. EIAs make decision-makers consider the environmental impact of the proposed projects prior to their approval.

The concept of environmental assessment was internationally accepted by the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) in 1991.[11] The convention provides the methods of evaluating the environmental effects of projects, which may have as affected several countries.

The concept of EIA has gained a wide implementation across the globe despite the fact that the Espoo Convention mainly deals with transboundary environmental impacts. In most countries, environmental impact assessment has become an aspect of environmental governance.

EIAs are especially useful when it comes to governing development projects in the sensitive environment. The EIA process can help governments to determine whether the infrastructure projects will be harmful to the ecology, and what mitigation strategies can be used. The environmental assessments also facilitate transparency and involvement of the people in the environmental decision making. During the assessment process, stakeholders are usually allowed to make their input such as local communities and environmental organizations.

Nevertheless, the success of EIA systems is mostly determined by institutional ability of governments and quality of scientific analysis. Weak environmental investigations or poor enforcement mechanism may be unable to prevent environmental degradation.

7·4 Precautionary Principle and Environmental Governance

The precautionary principle is another significant principle in the international environmental law. This rule implies that environmental protection should be put in place even where scientific certainty of environmental damage has not been completely proved. Principle 15 of the Rio Declaration on Environment and Development (1992) expressed the precautionary principle.[12] In this principle, lack of absolute scientific certainty cannot be taken as an excuse to delay the initiation of cost-effective interventions to avert the degradation of the environment.

Many international environmental agreements and domestic environmental laws have included the precautionary principle. It is generally considered as an important element of contemporary environmental governance. The precautionary principle however should be applied to balance development requirements. Excessive application of the principle can deter infrastructure development in areas where the economy is in dire need of development.

Thus, the policymakers should be very cautious of the potential high environmental risks of the development projects as well as the social and economic advantages that the development projects could bring.

7·5 Sustainable use of Natural Resource

Sustainable use of natural resources is a concept that is gaining a lot of focus in international environmental law. This notion acknowledges that natural resources can be used in the economic development as long as this use does not affect the long-term ecological sustainability. A number of international documents such as the Convention on Biological Diversity and other regional environmental treaties show the reflection of the principle of sustainable use of natural resources. It encourages states to use the management strategies that can preserve the ecological balance but make the use of the natural resources economically.

Sustainable use of natural resources in the context of protected areas might involve ecotourism, forestry, sustainable agriculture and development of infrastructure that does not have a significant negative impact on ecosystems.

In the case of developing countries, the sustainable use of natural resources approach is a viable way of aligning conservation and development goals. Sustainable use of natural resources policies should not ban economic activities in the name of environmental protection, but promote cautious use of natural resources.

7·6 The Role of International Institution

International institutions are significant in influencing the environmental governance and providing sustainable development projects. Financial resources, technical and policy advice are provided by many international organizations like the United Nations Environment Programme (UNEP), the World Bank, and regional development banks for environmental management.

Such institutions usually set environmental protection policies that govern development projects that are funded by the international sources. As an illustration, the World Bank Environmental and Social Framework stipulates environmental impact assessment and consultation with stakeholders of infrastructure projects funded by the organization.[13]

These protective measures seek to make sure that the development projects financed by the international institutions meet the environmental standards and also encourage sustainable economic growth. Meanwhile, the international institutions also offer both the financial and technological assistance to the developing countries to put up the measures of environmental protection. This support is especially valuable to nations that have low resources and technical capability.

Therefore, the foregoing discussion has established that the international environmental law has established an intricate structure of dealing with the issue of environmental protection and economic development. The Convention on Biological Diversity, environmental impact assessment systems, and principles of sustainable use of natural resources are all instruments that show that environmental regulation does not inherently forbid development activities.

Rather, the international law frameworks promote the countries to take moderate strategies that combine conservation goals and socio-economic development. The conservation of biodiversity is crucial to the existence of the protected areas; however, the management of these areas should address the developmental requirements of the country.

In the case of the developing countries, environmental governance should thus aim at designing regulatory mechanisms that will enable development activities and at the same time ensure ecological sustainability. Such balance approach is an expression of universal goals of sustainable development and ecological equity.

8. Global Practices Relating to Development Activities in Protected Areas

8·1 Evolution of Conservation Policies

Over the past century there has been a tremendous change in the policies relating to the management of protected areas. The initial concept of conservation relied on the main principles of strict preservation where human activities were excluded on the landscapes under protection to preserve the ecological integrity. The concept were greatly influenced by the conservation efforts in nations like the United States. The Yellowstone National Park which was formed in the United States in 1872 is widely considered the start of the modern national park movement.[14] This model encouraged the notion that some natural zones need to be left without human intervention.

This preservationist model was formulated in a context where large portions of land were not densely populated and industrialization was already well established. However, when the same model was subsequently introduced in developing countries, it tended to create conflicts between conservation policies and the requirements of the development activities for the economic prosperity of such countries.

In the course of time, researchers and policy makers started to understand that the rigid preservation policies were not necessarily in line with the socio-economic realities in all parts of the world. Consequently, conservation policies slowly changed to less rigid measures that enable some forms of sustainable development in the protected areas.

8·2 Integrated Approaches of Conservation and Development

The concept of Integrated Conservation and Development Projects (ICDPs) is one of the most powerful policy innovations in the contemporary conservation policy. These policies aim at connecting biodiversity conservation and socio-economic development of the local population.

ICDPs developed in the 1980s and 1990s when conservation organizations started to be more aware of the fact that conservation policies should serve the economic needs of the local people. Unless the communities residing around the protected area are given a chance to develop, they might have minimal reasons to promote conservation.[15] Conservation policies under the ICDP model are integrated with development programs like livelihood support, community infrastructure and sustainable management of resources. These projects are meant to ease the strain on the natural resources and help the local population in terms of economic growth.

Even though the effectiveness of ICDPs has been questioned, the strategy is a significant step towards more inclusive conservation policies. It acknowledges the fact that environmental protection and development goals can be complementary to each other as opposed to conflicting.

8·3 International Experiences on infrastructure Development in Protected Areas

A number of countries have introduced policies that permit infrastructure development within protected area. These policies are informed by the fact that some infrastructure projects can be required as a result of national development or even management of the protected areas.

The United States is one example of countries that have national parks equipped with different types of infrastructure such as roads, visitor facilities, research stations, and transportation networks. Although there are environmental regulations of such infrastructure construction, there is no ban on development activities.[16]

Equally, many European nations permit development projects in protected areas under environmental protection measures. The European Union has been able to come up with the Natura 2000 network that focuses on conserving biodiversity with the aim of permitting sustainable economic activities within the protected areas.[17]

Under the Natura 2000, development initiatives can be carried out within the conservation areas on the condition that they do not have a significant negative impact on the conservation goals of the site. The environmental assessments have to be done to analyze possible effects, and mitigation measures should be taken where they are needed.

Many infrastructural development activities have been occurred within the protected areas such as world Heritage Sites, National Park, wildlife sanctuary and Conservation over the world. The protected areas can be used as a contributor to national development objectives, especially watershed protection for hydropower, and as a reservoir for timber and non-timber forest products and tourism.[18] It is estimated that there are 984 protected areas containing one or more large dams, amounting to 1,249 large dams and 278 that are primarily used for hydropower.[19]

Many countries such as Canada, Costa Rica, Iceland, Sarawak (Malaysia) and Tasmania (Australia) have implemented hydropower project within the protected areas.[20] Similarly, Germany has established multi-purpose dam and pumped storage projects within the Kellerwald-Edersee national park which is not only a protected area but also a world heritage site of European Beech forests.[21] Again, Albania has implemented many hydropower projects in pristine river which flows within the protected areas of Valbona valley national park.[22] Likewise, there are 1,970 hydropower plants that are established[23] within the protected areas of Balkans regions.[24]

In addition to this, Unac hydropower plant in the Una National Park[25] of Bosnia and Herzegovina,[26] the 1,960 MW Rishiganga hydropower project of Chandoli National Park and Nanda Devi National Park in India,[27] Theun 2 Hydropower project of Nakai Nam Theun national park which has 400,000 hectares of forest in Lao PDR,[28] the Hulu Terengganu Hydroelectric Project (HTHEP) in Tembat Forest Reserve and Petuang Forest Reserve in Malaysia,[29] the 800 megawatts Manapôuri hydro power station within the Fiordland National Park, which has UNESCO World Heritage status as part of Te Wâhipounamu in New Zealand,[30] Mahaweli Development Project, a multi-purpose development scheme designed for the hydroelectricity, irrigation, and water supply lies within four National Parks—(1) Maduru Oya National Park (2) Wasgamuwa, (3) Flood Plains, and (4) Somawathiya in Sri Lanka[31] are other notable examples of the infrastructure development those are implemented within the protected areas.

At the same way, the infrastructure development for irrigation have been established within the protected areas in many countries over the world. For example: in Dominican Republic, the Madre de las Aguas Conservation Area protects the source of 17 rivers that provide water supply for domestic consumption and irrigation for over half population of the country.[32] The Bogani Nani Wartabone National Park has a major irrigation project designed to increase rice production in Sulawesi Island of Indonesia.[33] Ankarafantsika National Park supplies water to the region of Marovoay plains, and the Lac Alaotra watershed, a Ramsar site, serves about 80,000 hectares of rice farms in Madagascar.[34] Hub Dam (in Sindh) is situated in the Kirthar National Park and the area of Wildlife Sanctuary, place for bird watching in Pakistan.[35] About 20% of irrigated lands depend on protected areas for water and habitat protection in Venezuela.[36] Further, the World Heritage Sites shows that 57 sites have water infrastructure, and 16 sites are renewable energy facilities.[37]

Thus, in many nations, the protected areas which has the infrastructure projects has been found crucial in the economic growth of respected countries. The governments in these countries have been embracing more policies that permit development activities within protected areas.

The above examples have demonstrated that the development activities are permitted within the protected areas with environmental consideration. That's why it is important to focus environmental governance through regulating development activities instead of banning such activities within the protected areas. This enables nations to be economically developed and ecologically sustainable.

These international experiences prove that the protected areas do not necessarily have to be viewed as absolute taboo areas that should not be developed. Rather, infrastructure projects can be well-managed and exist together with environmental governance.

8·4 Community Based Conservation

The participation of the community has taken central point in the contemporary environmental governance. Community based conservation programs aim at engaging the local people in the administration of the conservation areas and natural resources.

This approach acknowledges that local communities in most cases have good knowledge concerning ecosystems and natural resources management. Furthermore, communities can be engaged in conservation programs to enhance the level of adherence to environmental laws and minimize the confrontation between conservation agencies and local communities.

Community conservation has been a popular concept that has been used in different regions across the world. Community conservancies in a number of African nations enable local people to enjoy an economic gain of conservation activities like ecotourism and wildlife management.[38] Such initiatives show that conservation policies may create economic opportunities as well as biodiversity protection. Community based programs may be used to enhance environmental governance by developing incentives to environmental conservation.

Nonetheless, there are also problems with community based conservation. To be implemented well, it needs proper institutional arrangements, clear systems of governance and a fair allocation of benefits to the local people.

8·5 Environmental Governance and Development Planning

Environmental governance is now a critical concept to governments and international institutions to include in the development planning. Environmental issues are playing an increasing role in the development strategies and plans of infrastructure development in the countries.

Environmental governance tools like the environmental impact assessment, strategic environmental assessment and the regulatory licensing system are useful in ensuring that developmental projects are in line with the environmental governance.

Moreover, there is growing use of landscape level planning that takes into account ecological systems over the large geographical regions by governments. This method has the benefit of minimizing habitat fragmentation and ensuring ecological connectivity.

Integrated planning is especially crucial in the case of infrastructure development in protected areas. The development activities be formulated in a manner that will reduce ecological interference while achieving the economic goals. As an illustration, the transportation infrastructure can be made in sensitive areas of habitats, include wildlife corridors by employ engineering solutions that makes less effects in the environment.

8·6 Balancing Between Conservation and Development Activities

As the experiences of various countries show that the process of conservation and development must be balanced through the flexible systems of governance. Tough restrictions on development activities might not be suitable especially in the developing nations those are struggling with serious economic needs.

Governments should instead adopt systems of regulation that consider the development proposals on a case-to-case basis. The Environmental impact assessment, the public participation process, and scientific monitoring may be used to reduce the environmental degradation that caused by the development activities.

Sustainable development is a valuable concept that offers a framework on how this can be achieved. Governments can ensure that ecological sustainability is promoted by incorporating the environmental protection in the economic planning.

After all, the problem facing policymakers is how to make the systems of environmental governance that would address the needs of ecological balance with the requirement of socio-economic development of the country.

9. Environmental Justice, the Right to Development and Global Environmental Governance

9·1 Environmental justice and Global Inequality

Environmental governance is not only a technical or ecological phenomenon; it is also closely related to the issues of justice and global inequity. Environmental policies tend to have varying impacts on the nations based on their economic status, technological development, and their contribution to environmental degradation.

The industrialization of developed nations was extremely fast in the nineteenth and twentieth centuries with the strong dependence on fossil fuels, intense extraction of natural resources, and massive development of infrastructure. These activities were the leading causes of global environmental degradation that resulted climate change, reduction of biodiversity, and environmental pollution.[39]

However, developing countries have not contributed much in historical environmental degradation but are still bearing the worst effects of environmental problem. Developing nations tend to suffer in climate change and extinction of biodiversity in uneven proportions since they have no sufficient resources to adapt and mitigate the effects.

This disproportionate allocation of environmental risks has caused theorists to highlight the issue of environmental justice. Environmental justice attempts to make sure that the environmental policy does not unequally harm vulnerable communities or nations.

In the international environmental law, environmental justice must take into account the developmental needs of the poorer countries. Such policies that limit development opportunities in the developing countries yet fail to take into consideration global inequalities can be of great concern regarding issues of fairness and legitimacy.

9·2 The Principle of Common but Differentiated Responsibilities

One of the most significant principles in international environmental law that focuses on the global environmental inequality is the principle of common but differentiated responsibilities (CBDR). CBDR principle acknowledges that all the countries have a role to play in ensuring the safety of the global environment, but their responsibilities should vary depending on their contribution to the destruction of the environment in the past and their economic capabilities.

This principle was officially declared in Rio Declaration on Environment and Development (1992) according to which the developed countries recognize their responsibility due to the demands of their societies on the global environment and technologies and financial resources they possess.[40]

Some international environmental agreements have also included the CBDR principle such as the United Nations Framework Convention on Climate Change and the Paris Agreement. Within these frames, the developed countries are supposed to be on the frontline in solving the environmental problems and help the developing nations in terms of financial aid, technological transfer as well as capacity-building.

The principle thus acknowledges that environmental protection must not cause equal burdens to the countries which have not contributed equally towards environmental problems. To developing countries, this principle supports the point that environmental governance must not halt them to undertake the development activities that they need to undertake, especially when the activities are necessary to reduce poverty and transform their economy.

9·3 Infrastructure Development and the Right to Development

One of the most significant factors of economic growth and social development of developing countries is infrastructure development. The transport, energy, communication networks and water management projects are needed to enhance the living standards and contribute to economic growth of such countries.

International law has realized the right to development as one of the basic human rights. The Declaration on the Right to Development states that all human beings and all peoples have a right to engage in, contribute to and enjoy economic, social, cultural, and political development.[41]

The fulfillment of the right to development involves massive infrastructure investments for developing countries. Nevertheless, infrastructures may overlap with environmentally sensitive landscapes, such as forests, wetlands and protected areas.

When the environmental laws prohibits development activities in the protected land, they have the effect of inadvertently restricting the capacity of the developing nations to embark on their development goals. This brings a very critical normative issue, to what extent does environmental protection limit development in nations where infrastructure is necessary to reduce poverty and transform the economy?

It is believed by many scholars that environmental governance must consider adaptive methods that would permit responsible development to be undertaken and ecological sustainability.[42]

9·4 Environmental Governance: North-South Divide

Environmental protection and economic development sometimes creates the conflict referred as the "North-South divide" in global environmental politics. This is the case where developed nations in the Global North give priority to environmental protection since they have already attained high standards of economic growth and infrastructure development. On the contrary, the Global South countries tend to be focused on economic growth and poverty alleviation.

Such type of disparity in priorities may lead to tensions in global environmental negotiations. The developing countries often claim that the rigid environmental policies can cripple their economic growth and continue to cause inequality in the world. Meanwhile, industrialized nations are insisting on the importance of robust environmental regulations to solve such ecological issues as global warming and the loss of biodiversity.

The only way to solve this tension is through collaborative international strategies that would acknowledge both environmental and developmental interests. Developing countries can be assisted financially, in terms of technology transfer and capacity building programs, for sustainable development considering environmental governance.

9·5 Development Activities within Protected Areas: Normative Issues

The controversy related to development activity in the protected areas demonstrates the larger conflict between the protection of the environment and economic growth.

It is necessary to have the protected areas to conserve biodiversity and ecological balance. In most third world countries though, these regions fall in areas where the infrastructure development is of utmost need.

Bans on development activities can thus pose a huge socio-economic problem. As an example, the economic opportunities of remote communities may be restricted due to the limitations to transportation infrastructure, and the industrial growth may be slowed down due to the limitations in energy development.

A moderate approach to environmental governance should thus consider development projects in the protected area on the criteria of environmental governance and economic need.

Instead of enforcing bans, the regulatory systems need to permit developmental projects that will include environmental governance.

9·6 Balancing Environmental Governance

To make the balance between the environmental protection and development, practical governance structures that incorporate ecological, economic, and social factors should be implemented. These frameworks must contain a number of important elements: First, the development projects ought to be considered by environmental assessment mechanisms to examine the potential ecological impact of the development projects. Second, governments are supposed to embrace mitigation initiatives that reduce environmental degradation which includes wildlife corridors, habitat restoration programs and sustainable development of infrastructure. Third, local communities and stakeholders must be included in the decision-making processes in order to be transparent and accountable. Fourth, the international cooperation ought to assist the developing countries in terms of monetary aid, technology and institutional capacity building.

Through these strategies, environmental governance will be able to achieve conservation and development goals.

10. Conclusion and Recommendations

10·1 Conclusion

The connection between infrastructural development and the environmental protection is one of the most important policy and legal issues of the modern world. Although conservation of the environment is important towards ensuring ecological equilibrium and biodiversity, the developing countries are usually under pressure to develop infrastructure to ensure that they attain economic prosperity, alleviate poverty, and enhance the living standards of the people. This conflict between these two aims is especially vivid in the management of the protected areas.

Traditionally, the concept of protected areas presupposes that the activities of people in those areas are severely prohibited to preserve biodiversity and ecological systems. The initial conservation policies were mainly founded on the strict conservation models that aimed at keeping the environmentally sensitive areas of the environment free of development activities.[43] Nevertheless, such models were mostly created in the industrialized countries where the economic development was well-underway when the conservation of the environment became a key policy concern.

When the same conservation models are implemented in the developing countries, they may generate serious problems. To have a sustainable economic growth, many developing countries need to develop infrastructure such as transport infrastructure, hydropower, communication infrastructure and energy infrastructure. Bans to development activities in the protected areas can thus reduce chances to socio-economic development especially in those developing countries that possess great natural resources in the conservation areas.

The international environmental law does not provide total limitations to development activities in the protected zones. Rather, the international environmental governance systems focus on the merging of environmental protection with sustainable development goals. The instruments like the Convention on Biological Diversity acknowledge the value of conserving biodiversity as well as the right of the countries to use their own natural resources according to their own environmental and developmental policies.[44]

In the same line, the concept of sustainable development makes it clear that economic growth and environmental preservation must be integrated. The idea is expressed in the 'Our Common Future' where it is indicated that development should address the needs of the current generation in a manner that will not interfere with the capacity of the future generation to achieve their needs.[45] This strategy does not imply that development activities should be abandoned, but, on the contrary, they should be carried out in a responsible and sustainable way.

The concept of 'common but differentiated responsibilities' also acknowledges the fact that the developed and developing nations have not contributed equally to environmental degradation in the past. The developed nations achieved economic development by highly industrializing and developing infrastructure which is usually not accompanied with strict environmental rules. The developing nations, on the other hand, are still experiencing serious developmental problems and hence need policy flexibility in their quest to achieve economic growth.[46]

In that sense, the concept of environmental governance cannot be viewed as a tool that is limiting development in poorer countries and at the same time, enables developed countries to preserve their economic privileges. In its place, environmental governance ought to promote the developmental directions that are economically productive and environmentally accountable.

It should not be assumed that development activities in the protected areas should not be allowed. Instead, they should be appraised using holistic environmental governance mechanisms that will ensure the sustainability of the environment besides allowing the required infrastructure development.

Environmental governance must, however, be balanced between regulation, mitigation and sustainable management, as opposed to prohibition. The assessment of environmental impacts, monitoring by scientists, and participation in decision-making can be used to ensure that the development projects in the protected areas do not cause serious ecological damage.

Finally, policymakers must find a way of balancing conservation goals and development demands such that they will result in environmental sustainability and socio-economic development.

10·2 Recommendations

In order to have a balanced between development and conservation in the protected areas, following policy measures ought to be put into consideration:

A. Embracing Flexible Environmental Governance Frameworks: The systems of environmental governance must not dwell on the dogmatic conservation systems that only do not allow any development activities within the protected areas. Rather, the regulatory frameworks ought to permit development activities considering mitigation measures of environmental degradation.

Governments are supposed to be open to policies that consider development activities on a case by case basis with consideration of ecological sensitivity, economic necessity and mitigation measures available.

B. Effective Environmental Impact Assessment Mechanisms: One of the best tools of balancing development and environmental protection is the environmental impact assessment (EIA). Governments ought to make sure that every significant development project that is implemented within the protected areas is evaluated in relation to environmental aspects.

These evaluations must include scientific evaluation, stakeholder involvement, and open decision makings to make sure environmental hazards are appropriately identified and countermeasures put in place.[47]

C. Integration Between Conservation and Development Planning: The management of the protected areas must be part of the national development strategies. The land-use management, infrastructure planning, and conservation policies must be aligned in such a way that conflicts arising between the development and environmental protection are reduced.

One of the ways through which ecological disruption can be avoided is through integrated landscape planning approaches that can enable infrastructure development to be undertaken.

D. Encouraging Community involvement in environmental governance: Protected areas are usually directly related to local communities, which might rely on natural resources as their means of living. Such mechanisms of community participation in decision-making should be therefore contained in environmental governance frameworks.

The community participation can enhance environmental surveillance, increase adherence to conservation rules, and sustainable use of resources.

E. International Cooperation: The concept and practice of international cooperation should be enhanced and put into place to address the problem of the modern world. The developed nations and international institutions should assist the developing countries for sustainable development. Such assistance can be in the form of financial aid, technology, and capacity building initiatives so as to enhance environmental governance.

This kind of cooperation demonstrates the greater goals of international environmental agreements and the idea that the protection of the environment must be sought on a global cooperation.

10·3 Final Reflection

Governance of the protected areas is a difficult policy issue, which involves a balancing between environmental protection and economic development. Although, conservation is important in order to conserve biodiversity and ecological systems, development is required in all countries.

The environmental governance should thus encourage responsible development and not a ban on development activities within the protected areas. Through embracing elastic regulatory frameworks, enhancing environmental assessment systems, and promoting involvement of the community, governments will be able to make sure that development operations in the protected areas will be undertaken in a manner that does not serious endanger ecological sustainability but promotes socio-economic development.

Only a balanced and pragmatic approach to environmental governance will allow developing countries to follow development goals keeping in mind the environmental dimension on which the long-term prosperity will eventually rely.

Notes and References

1. Patricia Birnie, Alan Boyle and Catherine Redgwell, ***International Law and the Environment***, 3rd edn, Oxford: Oxford University Press 2009, 585.
2. World Commission on Environment and Development, ***Our Common Future: Report of the World Commission on Environment and Development***, New York: UN, 1987, 43.
3. United Nations Environment Programme, ***Environmental Governance Update: April to June 2022***, New York: UN, 2022.
4. *Ibid*., Note 2.
5. UN Documents, ***Rio Declaration on Environment and Development*** (adopted 14 June 1992), New York: UN Doc A/CONF.151/26 (Vol I).
6. United Nations, ***Declaration on the Right to Development*** (adopted 4 December 1986), New York: UNGA Res 41/128.
7. Philippe Sands and Jacqueline Peel, ***Principles of International Environmental Law***, 4th edn, Cambridge and New York: Cambridge University Press 2018, 458.
8. ***Convention on Biological Diversity*** (adopted 5 June 1992, entered into force 29 December 1993) 1760 UNTS 79, New York: United Nations Treaty Series (UNTS), 1992.
9. *Ibid* art 20.
10. Nigel Dudley (ed.), ***Guidelines for Applying Protected Area Management Categories***, Gland, Switzerland: International Union for Conservation of Nature (IUCN), 2008.

11. UN, ***Convention on Environmental Impact Assessment in a Transboundary Context*** (adopted 25 February 1991, entered into force 10 September 1997) 1989 UNTS 309.
12. UN Doc., ***Declaration on Environment and Development*** (adopted at Rio de Janeiro on 3-14 June 1992) UN Doc A/CONF.151/26 (Vol I) principle 15.
13. World Bank, ***Environmental and Social Framework***, Washington, D.C.: World Bank, 2017.
14. Roderick Frazier Nash, ***Wilderness and the American Mind***, 4th edn, New Haven, CT: Yale University Press, 2001, 67.
15. Katrina Brandon and Michael Wells, "Planning for People and Parks: Design Dilemmas", ***World Development***, 20(4), 1992, 557.
16. Robert B Keiter, "National Parks and the Conservation of Wilderness", ***Environmental Law***, 1, 2013, 41.
17. European Commission, ***Natura 2000 and Biodiversity Protection***, Luxembourg: European Commission, 2015.
18. Stuart Chape, "An overview of integrated approaches to conservation and community development in the Lao People's Democratic Republic", ***IUCN-The world Conservation Union, PARKS***, 11(2) 25 [Retrieved from https://parksjournal.com/wp-content/uploads/2017/07/parks_june01.pdf]
19. https://www.hydropower.org/factsheets/hydropower-in-protected-areas-and-world-heritage-sites
20. https://www.hydropower.org/factsheets/hydropower-in-protected-areas-and-world-heritage-sites
21. https://www.hydropower.org/factsheets/hydropower-in-protected-areas-and-world-heritage-sites
22. http://d2ouvy59p0dg6k.cloudfront.net/downloads/position_paper_hydropower_development_in_valbona_national_park_final.pdf
23. Schwarz, U., ***Hydropower Projects in Protected Areas in the Balkan Region***, Vienna (Austria) and Radolfzell (Germany): RiverWatch & EuroNatur, 2015, 5.
24. The Balkans comprise the areas of Slovenia, Croatia, Bosnia and Herzegovina, Serbia, Montenegro, Albania, Macedonia, Greece, Bulgaria and Romania
25. https://www.balkanrivers.net/en/photos/una-river-unac
26. https://link.springer.com/article/10.1007/s10708-020-10181-9
27. https://ujvnl.com/greensite-projects-allocated-to-ujvnl
28. https://www.iucn.org/sites/dev/files/import/downloads/natsols_water_flyer_final.pdf
29. Affan Nasruddin, Mohammad Saiful Mansor, Nor Adibah Ismail and Ehwan Ngadi, "Recovery of bird communities following the construction of a large-scale hydroelectric dam", ***Ecological Processes***, 10(1), 2021, 3 [Retrieved from https://www.researchgate.net/publication/351410335_Recovery_of_bird_communities_following_the_construction_of_a_large-scale_hydroelectric_dam]
30. https://www.meridianenergy.co.nz/who-we-are/our-power-stations/hydro/manapouri#:~:text=Manap%C5%8Duri%20is%20a%20hydro%20power,%2C%20South%20Island%2C%20New%20Zealand.&text=The%20hydro%20power%20station%20is,the%20surface%20of%20Lake%20Manap%C5%8Duri.
31. P. M. Senarathna, ***Sri Lankawe Jathika Vanodhyana [National Parks of Sri Lanka]*** (in Sinhala), Nugegoda, Sri Lanka: Sarasavi Publishers, 2004, 166-171. ISBN 955-573-346-5.

32. https://www.iucn.org/sites/dev/files/import/downloads/natsols_water_flyer_final.pdf
33. https://www.iucn.org/sites/dev/files/import/downloads/natsols_water_flyer_final.pdf
34. https://www.iucn.org/sites/dev/files/import/downloads/natsols_water_flyer_final.pdf
35. http://www.wildlifeofpakistan.com/sanctuaries.html
36. https://www.iucn.org/sites/dev/files/import/downloads/natsols_water_flyer_final.pdf
37. International Hydropower Association, ***Good Practice Guide: Hydropower and Protected Areas***, London: IHA, 2021, 30. It is available on Available from: www.hydropower.org
38. Elinor Ostrom, ***Governing the Commons: The Evolution of Institutions for Collective Action***, Cambridge, United Kingdom: Cambridge University Press 1990.
39. Daniel Bodansky, Jutta Brunnée and Lavanya Rajamani, ***International Climate Change Law***, Oxford: Oxford University Press 2017, 28.
40. UN Documents, ***Rio Declaration on Environment and Development*** (adopted 14 June 1992) UN Doc A/CONF.151/26 (Vol I) principle 7.
41. United Nations, ***Declaration on the Right to Development*** (adopted 4 December 1986) New York: UNGA, Res 41/128.
42. Klaus Bosselmann, ***The Principle of Sustainability: Transforming Law and Governance***, Farham, UK: Ashgate 2008, 112.
43. Roderick Frazier Nash, ***Wilderness and the American Mind***, 4th edn, New Haven, CT: Yale University Press 2001, 67.
44. ***Convention on Biological Diversity***, art 3.
45. World Commission on Environment and Development, ***Our Common Future: Report of the World Commission on Environment and Development***, New York: UN, 1987, 42.
46. UN Documents, ***Rio Declaration on Environment and Development*** (adopted 14 June 1992), New York: UN Doc A/CONF.151/26 (Vol I) principle 7.
47. Philippe Sands and Jacqueline Peel, ***Principles of International Environmental Law***, 4th edn, Cambridge and New York: Cambridge University Press 2018, 672. ★

Article Received on June 03, 2026; Accepted on June 21, 2026

JOURNAL OF NATIONAL DEVELOPMENT

PEER REVIEWED, INDEXED & REFEREED Bi-ANNUAL INTERNATIONAL JOURNAL

ISSN 0972-8309

https://www.jndmeerut.org

[Vol. 39, No. 1 (Summer), 2026]

https://doi.org/10.62047/JND.2026.06.30.207

Education, General Awareness and Social Media Usage among Trade Union Leaders and Workers in Punjab

Sukhram Singh[1], *Balwinder Singh Tiwana*[2] *& Sarbjeet Singh*[3]

[1]Assistant Professor of Economics, Government College, Machhiwara, Punjab (India) E-mail:<sukhramsingh771@gmail.com>

[2]Former Professor, Department of Economics, Punjabi University, Patiala, Punjab (India) E-mail:<balwindertiwana@yahoo.co.in>

[3]Associate Professor, Department of Economics, Punjabi University, Patiala, Punjab (India) E-mail:<drsarbjeetsingh@gmail.com>

Abstract

This paper examines the educational profiles, general awareness, and social media usage among 75 leaders and 300 workers selected from 15 unions across different industries in Punjab. The results indicate that leaders' formal education is satisfactory, but the majority of workers, mainly migrant workers, have lower levels of education. Various indicators show that the level of knowledge and awareness among the leadership is relatively higher than among workers. The majority of leaders use contemporary e-communication and social media, but the use of these tools is lower among workers. The results suggest a dire need to raise education levels in general, and union education in particular, to increase awareness and expand the use of modern e-communication and other platforms among trade union leaders and workers, thereby strengthening the trade union movement in Punjab and making it more resilient.

Keywords

Trade unions, Leaders, Workers, Education level, Social media usage.

Centre For Studies of National Development, Meerut

Editorial Office : D-59, Shastri Nagar, Meerut - 250 004 (INDIA)

Ph. : 0121-2763765, +91-9997771669, +91-9412200765

16

Education, General Awareness and Social Media Usage among Trade Union Leaders and Workers in Punjab

1. Introduction

Education is one of the basic needs, alongside food, shelter, and clothing, for a human being in the present times. It has been recognized as the cornerstone of economic and social development because it is a crucial input for development and enables a person to understand his surroundings and acquire knowledge to promote his or her interests. The significance of education can never be overlooked because it is a tool for bringing economic, social, cultural, and technical changes in society. Education raises productivity, creativity and efficiency of labour. It is the key to improving the economic efficiency and social consistency as it increases the overall productivity and intellectual flexibility of the labour force. It plays a vital role in technological capability and technical change in a country's industrial development (Ozturk, 2008).

Modern machinery in the industrial sector depends to a peculiar degree on education. It is difficult and perilous to build modern machinery with an illiterate workforce. Therefore, the education of industrial labour should receive special attention (Royal Commission, 1931). The National Commission on Labour (1969) found that no concrete steps were taken by the Government, employers, or most trade unions to educate and enlighten workers for a long period of time. It is recommended that the programme of workers' education should be formulated, administered and implemented by the trade unions themselves. To overcome the difficulties of the unions, the Central Board of Workers' Education should provide aid to trade unions for workers' education until the unions take over the programme of workers' education. Simultaneously, employers should provide the same facilities recommended by the Board to educate and enlighten workers.

Cunniah (2007) defined 'Union Education' as a process through which the workforce learns to be unionist. It is education provided by unions, leaders or independent labour educators to workers through union schools, workshops, union journals or magazines, seminars, meetings, discussions, campaigns, strikes and other activities. Compared with the individual-centred approach of formal education in schools/colleges/universities, union education is group-oriented. Thus, both formal and union education should be provided to the workers for their betterment.

Like big organizations, trade unions also print and distribute their newsletters, magazines, and journals to educate and raise awareness of current labour and industrial issues among the working class. Thus, the regular publication of newsletters, magazines, and journals by unions provides a means of educating and raising awareness among the working class. Furthermore, workers' participation in union meetings and strikes provides unions with an avenue to provide informal education and raise general awareness among the working class (Berrell, 2013). Thus, to evaluate union education, we have analyzed general awareness among leaders and workers using their access to newspapers, magazines/journals, union pamphlets, etc.

The advent of mobile networking has led to the ubiquity of social media in everyday life. The way we communicate has completely changed with the advent of revolutionary social media technologies. Social media provides a platform for people to connect/collaborate, communicate, and exchange information with one another in work and personal life. WhatsApp, Facebook, Skype, Twitter, YouTube, Instagram, and LinkedIn are well-known social media platforms, but social media can take many forms, including internet forums, email, podcasts, online profiles, and instant messaging. Social media has brought both negative and positive impacts to various organizations and workers nowadays (Ali-Hassan *et al.*, 2015). In the present competitive market, organizations that do not include social media in their business strategy run the risk to survive. Social media enhances information discovery and delivery, enables employees to discuss ideas and broaden their networks, serves as a useful and effective recruitment tool, and promotes diversity and inclusion. It is found that the use of social media has a positive effect on an employee's routine and innovative job performance. There is a positive relationship between social media use and job performance (Cetinkaya & Rashid, 2018). Similarly, social media can be a weakness for organizations because using Facebook, Twitter, WhatsApp, etc. during working hours can negatively affect workers' productivity. Therefore, the productivity can be enhanced only if the social media use is managed in proper and effective ways (Wushe & Shenje, 2019).

It is argued that technological developments in social media could facilitate decentralized communication and reduce the distance between union leaders and members. Hodder and Houghton (2015) found that the content of the union's messages remained aligned with traditional union communication, while opportunities for social media engagement remained under-utilized. Barnes *et al.* (2019) also found that although social media technologies provide a significant forum for union members to express their views, their use remains limited. Social media has changed the political activism and mobilization of trade unions. These are cheap, fast, and have the potential to reach the masses, social media platforms have become popular in the present times (Uba & Jansson, 2021). Thus, in this paper, we have examined the levels of formal education, general awareness, and social media usage among trade union leaders and workers in Punjab.

2. Objectives of the Study

The specific objectives of the present study are:

1. To examine the education profile of trade union leaders and workers.
2. To analyze the general awareness among trade union leaders and workers.
3. To evaluate social media usage among trade union leaders and workers in Punjab.

3. Research Methodology

This paper uses primary data obtained through purposive sampling. Firstly, most industrially concentrated districts of Punjab, namely Ludhiana, Jalandhar and Amritsar, have been selected. In the second phase, 15 trade unions are selected from different industries. Among these 15 unions, 4 are from Ludhiana, 6 are from Jalandhar, and 5 are from Amritsar district. These unions are affiliated with different trade union organizations such as All India Trade Union Congress (AITUC), Indian National Trade Union Congress (INTUC), Bharatiya Mazdoor Sangh (BMS), Centre of Indian Trade Unions (CITU), Indian Federation of Trade Unions (IFTU), Centre of Trade Unions (CTU) and Hind Mazdoor Sabha (HMS). The unions are divided into three categories- factory unions, industrial unions and general unions. In the case of a factory union, membership is limited to a single factory. The membership of an industrial union is not limited and is scattered among the different units/factories of a particular industry. The membership of the general union is scattered across the different units of different industries. Among the 15 sampled unions, 4 are factory unions, 8 are industrial unions, and 3 are general unions.

In the subsequent phase of the study, a sample of 75 union leaders was selected, with five leaders drawn from each of the fifteen unions. Additionally, a total of 300 workers were sampled across these unions, including 90 workers from factory unions, 150 from industrial unions, and 60 from general unions. This sampling framework ensured representation of both leadership and worker perspectives across the different categories of trade unions.

4. Results and Discussion

4·1 Educational Status of Union Leaders and Workers

Education equips trade union leaders with essential skills and knowledge to organize and represent the workers. Educated leaders can understand complex labour laws and industrial relations and effectively negotiate with employers in the new globalized era. The picture of the formal educational status of trade union leaders in Punjab is presented in Table-1. Of the 75 sampled leaders, the highest proportion (40.00 per cent) of respondents have a matric-level education. Further, 3 leaders (4.00 per cent) have a 12th level education, and 18 leaders (24.00 per cent) are graduates and postgraduates. Thus, it makes clear that the majority of leaders (68.00 per cent) are qualified up to primary, middle and matric levels of education. There is only 1 illiterate leader and 2 leaders (2.67 per cent) with below-primary-level education. The results further state that 9 (12.00 per cent) have primary-level education, and 12 leaders (16.00 per cent) have middle-level education. Out of the 75 respondents, only 10 (13.33 per cent) have a professional or technical diploma after matric or the 12th level of education.

Table-1: Educational Status of Trade Union Leaders

Sr. No.	Educational Status	Total Sampled Leaders	Percentage
1.	Illiterate	1	1.33
2.	Below Primary	2	2.67
3.	Primary	9	12.00
4.	Middle	12	16.00
5.	Matric	30	40.00
6.	12^{th}	3	4.00
7.	Graduate or Post Graduate	18	24.00
8.	Total	75	100.00
9.	Any Professional/Technical Diploma (After 10^{th} or 12^{th})	10	13.33
10.	Not any Professional/Technical Diploma	65	86.67
11.	Total	75	100.00

Source: Primary Survey, 2021-22

Educated workers have the knowledge to better understand their rights, labour and industrial laws, address their grievances, understand occupational health and safety, and demonstrate good leadership qualities. Education might affect workers' participation in trade union activities and could also play an important role in the training of workers as union leaders. Table-2 presents data on the formal educational qualifications of union members in Punjab. It is evident from the table that, among the 300 sampled workers, 67 (22.33 per cent) have never attended school. There is a wide educational gap among factory, industrial, and general union members.

Table-2: Educational Status of Union Member Workers

Sr. No.	Educational Status	Factory Union Members	Industrial Union Members	General Union Members	Total Sampled Members
1.	Illiterate	4 (4.44)	53 (35.33)	10 (16.67)	67 (22.33)
2.	Below Primary	2 (2.22)	21 (14.00)	13 (21.67)	36 (12.00)
3.	Primary	10 (11.11)	47 (31.33)	16 (26.67)	73 (24.33)
4.	Middle	25 (27.78)	25 (16.67)	16 (26.67)	66 (22.00)
5.	Matric	34 (37.78)	4 (2.67)	4 (6.67)	42 (14.00)
6.	12^{th}	15 (16.67)	—	1 (1.67)	16 (5.33)
7.	Graduate or Post Graduate	—	—	—	—

8.	Total	90 (100.00)	150 (100.00)	60 (100.00)	300 (100.00)
9.	Any Professional/ Technical Diploma (After 10th or 12th)	6 (6.67)	—	—	6 (2.00)
10.	Not any Professional/ Technical Diploma	84 (93.33)	150 (100.00)	60 (100.00)	294 (98.00)
11.	Total	90 (100.00)	150 (100.00)	60 (100.00)	300 (100.00)

Source: Primary Survey, 2021-22

Note: Figures in parentheses are percentages.

The factory unions have the lowest proportion (4.44 per cent) of illiterate members, while among the industrial unions, the share of illiterate members is very high (35.33 per cent); further, this share is 16.67 per cent among the general union workers. Primary education is considered a basic human right and holds a central place within the formal education system. The data show that 12.00 per cent of workers have below primary education, and overall, about one third (34.33 per cent, including the illiterate) of the union members are unable to obtain basic primary education.

Among the factory, industrial, and general unions, the share of members who studied up to the primary level is 11.11, 31.33, and 26.67 per cent, respectively; overall, this share is 24.33 per cent. Further, 22.00 per cent of the total sampled workers are qualified up to the middle level. Among the factory unions, the highest share (37.78 per cent) of workers has matric-level education, while this share is very low among the industrial and general unions, at only 2.67 and 6.67 per cent, respectively. This shows that the education qualifications of the factory union members are better than those of the industrial and general unions. Further, among the factory unions, 16.67 per cent of workers are educated up to the secondary level (12th), and only one member from the general union is educated to that level. There is not a single worker from the total sample of 300 respondents who has graduated or post-graduated. Overall, the highest share (24.33 per cent) of workers is in the category of primary level education, followed by illiterate (22.33 per cent), middle level (22.00 per cent), matric (14.00 per cent), below primary (12.00 per cent) and secondary level (5.33 per cent).

It is found that no worker from industrial and general trade unions has any professional/technical diploma. In the factory unions, 6.67 per cent of workers hold a professional/technical diploma, whereas this share is only 2 per cent among the 300 sampled workers. The results indicate that the workers' educational level is not satisfactory. As a large share of the sampled workers belongs to the migrant labour category, the literacy level among migrant workers is very low, and these results are also supported by Madhur's (2017) study on industrial relations and migrant workers.

4·2 General Awareness among Trade Union Leaders and Workers

A newspaper is an important and efficient tool for disseminating information in society. It is a great source of knowledge/information. The newspaper has created a positive impact on the working class in particular and on society in general. Trade union newsletters, magazines, or journals play a vital role in raising workers' awareness. The majority of the central trade union organizations publish newsletters, magazines, or journals to communicate with their members and leaders, raise their awareness of union policy, political consciousness, and the union's stand on certain principal issues. They also keep them informed about union matters, such as struggles and achievements.

Table-3 summarizes data on various indicators of general awareness, such as reading newspapers, journals, or magazines, the Trade Union Act, and union pamphlets, among the sampled trade union leaders in Punjab. It is found that the majority of the leaders have replied that they read newspapers. As many as 67 leaders (89.33 per cent) confirmed that they read newspapers. Of these, 35 (52.24 per cent) read the newspaper regularly in their routine lives, and the remaining 32 (47.76 per cent) read it occasionally. It explains that although a large majority of leaders read newspapers, about half do not read them regularly. It was noted during the field survey that the majority of whole-timer trade unionists read newspapers because they have some time during their trade union activities. On the other hand, the insider leaders work in factories as workers; they face time constraints and read the newspaper occasionally. Further, the result shows that 50.67 per cent of leaders read journals and magazines related to trade union and working-class activities.

Table-3: General Awareness among Trade Union Leaders

Sr. No.	Item	Total Sampled Leaders	Percentage
1.	**Do you read newspaper(s)?**		
	Yes	67	89.33
	No	8	10.67
	Total	75	100.00
If, Yes	Regularly	35	52.24
	Occasionally	32	47.76
	Total	67	100.00
2.	**Do you read journal(s)/magazine(s)?**		
	Yes	38	50.67
	No	37	49.33
	Total	75	100.00
3.	**Have you contributed any articles on the subject of labour to any journal, magazine or newspaper?**		
	Yes	13	17.33
	No	62	82.67
	Total	75	100.00

4.	**Have you read The Trade Union Act, 1926?**		
	Yes	39	52.00
	No	36	48.00
	Total	75	100.00
5.	**Do you know about the number and percentage of workers required to register a union in a factory?**		
	Yes	52	69.33
	No	23	30.67
	Total	75	100.00
6.	**Do you read union pamphlets?**		
	Yes	49	65.33
	No	26	34.67
	Total	75	100.00
If, Yes	Regularly	40	81.63
	Occasionally	9	18.37
	Total	49	100.00

Source: Primary Survey, 2021-22

The next question asked respondents whether they had contributed any articles on labour to any journal, magazine, or newspaper. It turns out that only 17.33 per cent of leaders have ever written an article or piece on labour that was published in any journal, magazine or newspaper. It highlights that only a small proportion of the sampled leaders have written about the working class, their struggles, and activities. Further, of the 75 sampled trade union leaders, 49 (65.33 per cent) reported that they read the union pamphlets, and 26 (34.67 per cent) said that they do not read the pamphlets at all. Among these 49 leaders, 40 (81.63 per cent) have replied that they read the pamphlets regularly. Overall, leaders' participation in regular publications is not satisfactory.

The Trade Union Act, 1926, grants workers the legal right to organize and form trade unions. It defines the law governing trade unions and provides certain privileges and protections to registered unions. The table shows that only 39 leaders (52.00 per cent) have read the Act. Further, 52 leaders (69.33 per cent) know the number and percentage of workers required to register a union in a factory. There is a lack of knowledge among the trade union leadership, even regarding basic labour legislation. It is observed from the field survey that the awareness about all the indicators discussed above is higher among the outside leaders (whole-timers) than the trade union leaders working as a worker in the factory, because these leaders have more time to read newspapers and other material, and they have more experience with the unions and industrial relations. In terms of formal education, the leaders have better education, awareness and exposure than workers.

Table-4 presents data on various indicators of general awareness among the sampled trade union workers. The data show that of the 300 respondents, only 41 (13.67 per cent) reported reading newspapers, while the remaining 259 (86.33 per cent) do not read any newspaper at all. The union-wise data show that the percentage share of workers who read newspapers is 24.44, 6.67 and 15.00 among the factory, industrial and general unions, respectively. The relatively higher proportion of factory union workers can be attributed to factors such as higher educational levels, higher incomes, and the permanent nature of their jobs. Because of their regular and fixed working hours, they have time to visit trade union offices and read newspapers. It is found that, except for one worker from the factory union, no worker reads newspapers as part of their daily routine. All the workers replied that their working hours are longer and they have no free time to read newspapers. They read newspapers occasionally, especially when they visit the trade union office or a nearby shop. Thus, it shows that the organized workforce is unable to read newspapers in their daily lives.

Table-4: General Awareness among Union Member Workers

Sr. No.	Item	Factory Union Members	Industrial Union Members	General Union Members	Total Sampled Members
1.	**Do you read newspaper(s)?**				
	Yes	22 (24.44)	10 (6.67)	9 (15.00)	41 (13.67)
	No	68 (75.56)	140 (93.33)	51 (85.00)	259 (86.33)
	Total	90 (100.00)	150 (100.00)	60 (100.00)	300 (100.00)
If, Yes	Regularly	1 (4.55)	—	—	1 (2.44)
	Occasionally	21 (95.45)	10 (100.00)	9 (100.00)	40 (97.56)
	Total	22 (100.00)	10 (100.00)	9 (100.00)	41 (100.00)
2.	**Do you read journal(s)/magazine(s)?**				
	Yes	14 (15.56)	2 (1.33)	4 (6.67)	20 (6.67)
	No	76 (84.44)	148 (98.67)	56 (93.33)	280 (93.33)
	Total	90 (100.00)	150 (100.00)	60 (100.00)	300 (100.00)
3.	**Have you contributed any articles on the subject of labour to any journal, magazine or newspaper?**				
	Yes	—	—	—	—
	No	90 (100.00)	150 (100.00)	60 (100.00)	300 (100.00)
	Total	90 (100.00)	150 (100.00)	60 (100.00)	300 (100.00)

4.	**Have you read The Trade Union Act, 1926?**				
	Yes	10 (11.11)	3 (2.00)	4 (6.67)	17 (5.67)
	No	80 (88.89)	147 (98.00)	56 (93.33)	283 (94.33)
	Total	90 (100.00)	150 (100.00)	60 (100.00)	300 (100.00)
5.	**Do you know about the number and percentage of workers required to register a union in a factory?**				
	Yes	17 (18.89)	7 (4.67)	5 (8.33)	29 (9.67)
	No	73 (81.11)	143 (95.33)	55 (91.67)	271 (90.33)
	Total	90 (100.00)	150 (100.00)	60 (100.00)	300 (100.00)
6.	**Do you read union pamphlets?**				
	Yes	43 (47.78)	20 (13.33)	8 (13.33)	71 (23.67)
	No	47 (52.22)	130 (86.67)	52 (86.67)	229 (76.33)
	Total	90 (100.00)	150 (100.00)	60 (100.00)	300 (100.00)
If, Yes	Regularly	11 (25.58)	2 (10.00)	2 (25.00)	15 (21.13)
	Occasionally	32 (74.42)	18 (90.00)	6 (75.00)	56 (78.87)
	Total	43 (100.00)	20 (100.00)	8 (100.00)	71 (100.00)

Source: Primary Survey, 2021-22

Note: Figures in parentheses are percentages.

The second question from the respondents was whether they read any trade union journals or magazines. Only 6.67 per cent of respondents replied 'yes', and the remaining 93.33 per cent of workers do not read any journals or magazines at all. Similarly, as with reading newspapers, this proportion is higher among factory union workers (15.56 per cent) and is only 1.33 and 6.67 per cent among industrial and general union workers, respectively.

The next question asked respondents whether they had written and contributed any articles on the subject of labour to any journal, magazine or newspaper. The surprising results are evident when it is found that, out of all 300 sampled workers, not a single worker has contributed any article on labour issues and their unions, for various reasons such as low levels of education and awareness, lack of time and resources, etc.

It is found that, among these unionized sampled workers, only 5.67 per cent have replied that they had read the Trade Union Act. Again, this share is higher among the factory unions at 11.11 per cent, while it is only 2.00 per cent and 6.67 per cent among the industrial and general trade unions, respectively. Very disappointing results are found when a large number of organized workers have replied that they are unaware of any Act called the Trade Union Act, 1926. Further, the question was asked about the minimum number and percentage of workers required to register a trade union in any factory or establishment. It is found that only 29 (9.67 per cent) workers know this requirement, and the remaining 271 (90.33 per cent) lack knowledge of the basic minimum requirement for workers to register a trade union. The majority of these workers, who are aware of this requirement, have replied that they received the information from their leaders. The next question was asked to workers: When a union distributes pamphlets on any issue, do you read them? About one-fourth (23.67 per cent) of the respondents reported reading pamphlets. This share is 47.78 per cent among factory unions and only 13.33 per cent each among the industrial and general unions. Of the 71 respondents who read union pamphlets, only 15 (21.13 per cent) read them regularly, and the remaining 56 (78.87 per cent) read them occasionally.

The results show that factory unions rank first across all indicators of general awareness among workers because the majority of factory union members are employed permanently and earn higher incomes than workers in industrial and general unions. The educational status of factory union workers is also higher than that of workers in industrial and general unions. Further, compared with industrial unions, general unions have better indicators. The field survey found that general union workers have a higher level of commitment to unions. Among all sampled union members, the majority's performance on basic awareness indicators is disappointing. The results show that the awareness among these sampled workers from the organized workforce is not satisfactory.

4·3 Social Media Usage among Trade Union Leaders and Workers

Several scholars and those working within the working-class movement have suggested that the trade unions must use the contemporary and emerging forms of e-communication. It is suggested that trade unions can use social media as a channel to reconfigure how workers express their voices within and through trade unions, thereby enhancing the union and industrial democracy. It can help the trade unions to broaden their membership base and improve levels of activism and mobilization. Therefore, social media can serve as a new strategic tool for revitalizing unions. The use of social media and online platforms has given access to download and read the material. It can increase the potential for greater penetration for news platforms and union publications. The trade union literature can be provided to the young workers through social media and other online platforms, and a new wave of young trade unionists can be started (Berrell, 2013).

To examine the social media use by the trade union leadership, the data are presented in Table-5. On the whole, 43 leaders (57.33 per cent) have email accounts, and 59 leaders (78.67 per cent) report using social media. Thus, although the majority of leaders use both email and social media, the use of social media applications is higher than that of email among trade union leaders in Punjab.

Table-5: Social Media Usage among Trade Union Leaders

Sr. No.	Item	Total Sampled Leaders	Percentage
1.	Email Account		
	Yes	43	57.33
	No	32	42.67
	Total	75	100.00
2.	Use Social Media		
	Yes	59	78.67
	No	16	21.33
	Total	75	100.00
If Yes,	WhatsApp only	12	20.34
	Facebook only	—	—
	Both WhatsApp and Facebook	46	77.97
	Twitter	1	1.69
	Total	59	100.00

Source: Primary Survey, 2021-22

It is found that the majority of leaders use WhatsApp and Facebook as social media platforms. Of the 59 respondents, only 12 leaders (20.34 per cent) use WhatsApp, and 46 workers (77.97 per cent) use both Facebook and WhatsApp. WhatsApp is the preferred social media application among leaders. Further, it is found that the popular social media platform, Twitter, is not preferred by trade union leaders, as only 1 trade union leader in Punjab uses it.

Table-6 presents data on social media use among trade union members in Punjab. Of the 300 sampled workers, only 63 (21.00 per cent) have email accounts. A large majority of these workers do not know how to use email because their email accounts are created by mobile phone sellers or their friends/children, only to use multimedia touchscreen mobile phones. The union-wise data show that 37.78 per cent of factory union workers have email accounts, with shares of 11.33 per cent and 20.00 per cent for the industrial and general trade unions, respectively. These disparities can be attributed to differences in education and income levels across different unions. The above analysis reveals that factory union workers are more educated and have higher incomes than industrial and general union workers; thus, these gaps are major reasons for disparities in the use of the email facility among workers across different unions. It is observed from the field survey that a large majority of the industrial and general union workers have simple keypad mobile phones for calling purposes only, while the majority of the factory union workers have touchscreen multimedia mobile phones.

Table-6: Social Media Usage among Union Member Workers

Sr. No.	Item	Factory Union Members	Industrial Union Members	General Union Members	Total Sampled Members
1.	**Email Account**				
	Yes	34 (37.78)	17 (11.33)	12 (20.00)	63 (21.00)
	No	56 (62.22)	133 (88.67)	48 (80.00)	237 (79.00)
	Total	90 (100.00)	150 (100.00)	60 (100.00)	300 (100.00)
2.	**Use Social Media**				
	Yes	69 (76.67)	65 (43.33)	30 (50.00)	164 (54.67)
	No	21 (23.33)	85 (56.67)	30 (50.00)	136 (45.33)
	Total	90 (100.00)	150 (100.00)	60 (100.00)	300 (100.00)
If yes,	WhatsApp only	28 (40.58)	36 (55.38)	13 (43.33)	77 (46.95)
	Facebook only	—	—	—	—
	Both WhatsApp and Facebook	41 (59.42)	29 (44.62)	17 (56.67)	87 (53.05)
	Twitter	—	—	—	—
	Total	69 (100.00)	65 (100.00)	30 (100.00)	164 (100.00)

Source: Primary Survey, 2021-22

Note: Figures in parentheses are percentages.

Among the total sampled respondents, 54.67 per cent reported using social media applications such as WhatsApp and Facebook. The percentage share of workers who use social media is 76.67, 43.33 and 50.00 among the factory, industrial and general unions, respectively. Similarly, as with email usage, social media use is higher among factory union workers than among industrial and general unions.

The results further highlight that WhatsApp was the most popular social media platform among users. The data show that 46.69 per cent use only WhatsApp, while the remaining 53.05 per cent use WhatsApp and Facebook. It shows that WhatsApp is workers' first choice due to its ease of use. Of the total sampled workers, none uses Twitter.

The comparative results on social media use among trade union leadership and their member workers highlight that the leadership of trade unions uses social media more actively than do trade union member workers. These results can be attributed to differences in the educational status of the two respondent groups, as the leadership has higher educational and income levels, greater availability of time and resources, etc., than the member workers.

5. Concluding Remarks

In a nutshell, the majority of leaders (68.00 per cent) have studied up to the matric level of education, and about one-fourth have a graduation or post-graduation level of education, while among union workers, more than one-third lack basic primary education. The literacy level among migrant labourers is very low, and a large share of the sampled workers belong to this group.

The analysis further shows that a large majority of leaders said they read newspapers, but only about half read them regularly in their daily lives. About half of the leaders read journals and magazines, and only a small proportion have ever written any article or piece on unions or the working class that is published in any journal, magazine, or newspaper. About half of the leaders have never read the Trade Union Act, 1926, and about one-third do not know the number and percentage of workers required to register a union in a factory, which reveals a low level of knowledge among the leadership, even regarding basic labour legislation.

About 86 per cent of workers do not read any newspaper at all, which implies that even the organized workforce is unable to read newspapers, and no worker has ever contributed any article on labour issues or their unions. Among these unionized workers, fewer than one-tenth are aware of the basic minimum requirements for registering a trade union. It highlights that general awareness among organized workers in Punjab is not satisfactory. The comparative educational profile of factory union workers is better than that of workers in industrial and general unions; thus, their comparative general awareness is also higher. The results highlight that the majority of leaders use email facilities and social media. Further, WhatsApp is the first preference, and Twitter is not preferred among trade union leaders and workers.

The new economic environment has weakened trade unions, and their education programs have also suffered as a result. The results highlighted that formal education levels and union education, along with general awareness, are lower in Punjab. Thus, unions must make sincere efforts to provide union education and raise general awareness of current industrial relations systems and laws. There is a direct relationship between education and productivity, creativity, and labour efficiency; thus, governments at all levels must raise the educational level of the workforce to support industrial development and national development. The contemporary and emerging forms of e-communication, such as social media, can be utilized to educate unionists. These new platforms have the potential to serve as a strategic tool for regenerating and reviving unions, which can play an important role in protecting the interests of the working class.

References

Ali-Hassan, H., Nevo, D., & Wade, M., "Linking dimensions of social media use to job performance: The role of social capital", ***The Journal of Strategic Information***

Systems, 24(2), 2015, 65-89. https://tarjomefa.com/wp content/uploads/2018/08/TarjomeFa-F973-English.pdf

Barnes, A., Balnave, N., Thornthwaite, L., & Manning, B., "Social media: Union communication and member voice", P Holland, J Teicher & J Donaghey (eds.), ***Employee Voice at Work***, Singapore: Springer, 2019, 91-111. https://www.researchgate.net/publication/329716000_Social_Media_Union_Communication_and_Member_ Voice/link/61b3081c21a55433eab42e8f/download

Berrell, M., ***Education and Trade Unions: An Overview***, Sydney: St. Louis Press, 2013. https://www.researchgate.net/publication/309208974_Education_and_Trade_Unions_an_overview

Cetinkaya, A. S., & Rashid, M., "The effect of social media on employees' job performance: The mediating role of organisational structure", MPRA Paper No. 91354, 1 October 2018. https://mpra.ub.uni muenchen.de/91354/1/MPRA_paper_91354.pdf

Cunniah, D., "The role of trade unions in workers' education: The key to trade union capacity building", ***International Labor Office***, 4, 2007, 1-42. https://www.ilo.org/resource/conference-paper/role-trade-unions-workers-education-key-trade-union-capacity-building

Hodder, A., & Houghton, D., "Union use of social media: A study of the university and college union on Twitter", ***New Technology, Work and Employment***, 30(3), 2015, 173-89. https://www.researchgate.net/publication/286541745_Union_use_of_social_media_A_study_of_the_University_and_College_Union_on_Twitter

Madhur, O., "Industrial relations and migrant steel workers of Mandi Gobindgarh, Punjab, ***Journal of Emerging Technologies and Innovative Research***, 4(12), 2017, 155-164. https://www.jetir.org/papers/JETIR1712204.pdf

National Commission on Labour, ***Report of the National Commission on Labour***, Ministry of Labour and Employment and Rehabilitation, Government of India, New Delhi, 1969, 53, 329-335, 383.

Ozturk, I., "The role of education in economic development: A theoretical perspective", ***Journal of Rural Development and Administratio***n, 33(1), 2008, 39-47. https://mpra.ub.unimuenchen.de/9023/1/THE_ROLE_OF_EDUCATION_IN_ECONOMIC_ DEVELOPMENT.pdf

Royal Commission, ***Report of the Royal Commission on Labour in India***, Government of India, Central Publication Branch, Calcutta, 1931. http://14.139.60.153/handle/123456789/8973

Uba, K., & Jansson, J., "Political campaigns on YouTube: Trade unions' mobilisation in Europe", ***New Technology, Work and Employment***, 36(2), 2021, 240-260. https://doi.org/10.1111/ntwe.12181

Wushe, T., & Shenje, J., "The relationship between social media usage in the workplace and employee productivity in the public sector: Case study of government departments in Harare", ***SA Journal of Human Resource Management***, 17(1), 2019, 1-10. https://www.researchgate.net/publication/336440757_The_relationship_betwen_social_media_usage_in_the_workplace_and_employee_productivity_in_the_public_sector_Case_study_of_government_departments_in_Harare ★

Article Received on June 03, 2026; Accepted on June 21, 2026

Form 4 (See Rule 8)

Place of Publication	:	Meerut, U. P. India
Periodicity	:	Bi-annual (English) + Special Issue in Hindi
Printer's Name	:	Dr. Priyanka Mahajan, Saksham Computers, Meerut
Nationality	:	Indian
Address	:	D-59, Shastri Nagar Meerut-250 004 (INDIA)
Editor's Name	:	Dr. Dharam Vir
Nationality	:	Indian
Address	:	D-59, Shastri Nagar Meerut-250 004 (INDIA)
Names and addresses of the individuals who own the journal and of the partners or share-holders holdings more than one per cent of the total capital	:	Dr. Dharam Vir D-59, Shastri Nagar Meerut-250 004 (INDIA)

I, Dr. Dharam Vir, hereby declare that the particulars given above are true to the best of my knowledge and belief.

Dharam Vir

ISSN 0972-8309

Double-blind Reviewed, Indexed & Refereed
Bi-annual International Journal

Back Volumes of
Journal of National Development
Available on Original Price

For enquiry, please contact :
The Managing Editor
Journal of National Development
D-59, Shastri Nagar, Meerut - 250 004 (INDIA)
Ph. : 0121-2763765, +919997771669, +919219658788
Visit us at www.jndmeerut.org
<email : managingeditor@jndmeerut.org; papersubmission@jndmeerut.org>