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Editorial

Research Management Cell (RMC), a research unit of J S Murarka Multiple Campus Lahan, Siraha has been bringing out research-based journals as its main publications for last six years with the aim of enhancing the faculty members' research culture in their respective realms and promoting them for integrating research activities with teaching and learning activities. The primary aim of the RMC is to promote and expand the research by providing a number of grants; thesis support grants, mini-research grants, support for trainings and seminars, and travel grants for faculty members, and supports for MPhil and PhD. In the publication series of RMC, we are publishing its fifth volume having the articles from diverse areas.

Regarding the articles submitted for this volume, we had eighteen submissions in different categories; approximately 60% from the faculty members of J S Murarka Campus and 40% from other campuses across the country. Nearly 35% of the submissions did not proceed to the next stage of the editorial process as they were not prepared based on the recommended guidelines and having more than 50% similarity index. The articles of this volume broadly address multi major themes: applied linguistics, science stream, management realm and history sector. One notable feature of this volume is that it includes two articles addressing different theoretical aspects of politics and history in Nepali language. The articles included in this volume are addressing the issues from different areas: Applied Linguistics, Science, and Social Sciences as well. Some works are related to language sharing challenges and opportunities in the school level education including the students' perception towards the teachers and the causes behind the drop-out of the students in the higher level. Similarly, some of the works are covering the practical sides from the Scientific description of the relevant issues and there is an article discussing the impact of the monetary management for the teaching profession. These contributions reflect the multi-disciplinary nature of our journal and the collective efforts of the scholars from different backgrounds.

As an editorial team, we are committed to fostering a culture of rigorous scholarship and open exchange of ideas. We invite you to explore the contents of this volume, engage with the research presented, and contribute to the ongoing discourse in your respective fields.

We would like to express our gratitude to the authors who have chosen J S Multi-disciplinary Journal as a platform for sharing their research and for maintaining patience during the long review process. We thank our dedicated reviewers for contributing time out of their busy schedules for reviewing the submissions by providing invaluable feedback and ensuring the quality of the articles published, and we hope the collective hard work will help us improve the quality of the journal more for the next issue. We would also like to earnestly appreciate UGC Nepal's financial support in overall research activities of this campus.

The Editorial Board

December, 2024

Contents

Minimum School Safety Package: Understanding of Key Policy Actors Bikas Rimal.....	1-10
Teachers' Adequacy from Students' Perspective: A Case Study of JS Murarka Campus Binod Kumar Yadav, PhD, Laxman Sah, Gena Kumari Yadav, Shiv Kumar Das, Jay Prakash Sah	11-28
Teachers' Embrace of Communities of Practice in the Nepalese Context Dinesh Kumar Yadav 'Aastic'	29-38
Exploring the Phytochemical Constituents and Bioactivities of <i>Ocimum sanctum</i> (Tulsi) Ram Prabodh Yadav, Sabnam Kumary Chaudhary, Shree Ram Sah, Jitendra Kumar Yadav.....	39-48
Impact of Sound Pollution at Lahan City, Siraha, Nepal Narendra Kumar Chaudhary.....	49-62
Horror of Students' Dropout in Bachelor Level Dr. Ram Nath Yadav	63-72
Incentives and Job Performance of Teachers in Higher Education Institutions Jitendra Kumar Chaudhary.....	73-86
Analysis of Percentage of Element of Mixed Surfactants in Mixed Solvent Media Chandradip Kumar Yadav, Ajaya Bhattarai, PhD.....	87-96
Issues and Challenges Associated with Farming of Pangasius in Nepal Praveen Kumar Singh.....	97-112
Verbal Elements in Saptariya Tharu Ram Kumar Bhagat Yadav	113-128
पूर्वमध्यकाल ऐतिहासिक व्यक्तित्व श्रीधरःमन्त्री, महामाण्डलिक र राणक हिरालाल कर्ण.....	129-142
नेपाल तराई कांग्रेसको इतिहास डा. विजयप्रसाद मिश्र	143-152

Minimum School Safety Package: Understanding of Key Policy Actors

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Abstract

The article examines the understanding of Nepal's minimum school safety package among different policy actors especially of the school teacher, head teacher and senior officer of Ministry of Education, Science and Technology. Qualitative data were collected through in-depth interview. The data were collected through in-depth interview and analysis of the policy text. Through in-depth interviews and the available policy document's content analysis, the study revealed disparities in comprehension, with some focusing solely on physical infrastructure while overlooking holistic safety measures. Moreover, the study revealed that the use of jargon in policy documents further complicates understanding among grassroots-level stakeholders. The findings highlighted the need for improved communication and coordination among policymakers and implementers to ensure effective implementation of school safety measures and address the diverse needs of schools across Nepal. Overall, the article underscored the importance of bridging the gap between policy formulation and grassroots-level understanding to ensure the successful implementation of school safety measures.

Keywords: Policy actors, Risk reduction, School safety

Introduction

To systematize the education system, government has introduced many education policies and minimum school safety package is one of them. With the aim of saving the human lives including the lives of students, teachers and other actors related to schools, reducing the destruction of physical facilities including school buildings and education materials, avoiding the possible academic hours' losses due to closure of school due to disaster and minimizing the psychological pressures among the teachers and students, government of Nepal has introduced many policies on safe school (Ghimire, 2021). If we look at the history of safe school policy in Nepal, Child Friendly Schools National Framework for Quality Education (DoE 2010) has initiated to talk about the safety and security of students inside and outside of the school premises. In the same vein, policies came latter to the child friendly school national framework like Supplementary Training Manual on Annual

School Improvement Plan (2016), Contingency Plan for Nepal Education Cluster (2017), School Improvement Plan Development Guidelines (2017), Nepal Safe School Policy (2017), Comprehensive School Safety Master Plan (2017) and Comprehensive School Safety Minimum Package (2018) provide detailed guidelines to keep school environment safe and secured (Yadav & Kristen, 2022). School Improvement Plan (SIP) is one of the commonly known plan prepared at the grassroots level by school itself to improve the overall school environment and the then Department of Education prepared a supplementary training manual on how to develop SIP including school safety concerns (DoE, 2016). This training manual was for the school supervisors, resource persons, rooster teacher trainers and any other resource persons who work for none governmental organizations (Yadav & Kristen, 2022). After that, Ministry of Education, Science and Technology introduced School Improvement Plan Development Guidelines on 2017 with the aim of supporting the schools itself to develop their SIPs including the disaster risk reduction component. This guideline mainly emphasized the five things which are risk assessment and hazard mapping, emergency preparedness and response planning, infrastructure and school building safety, education and awareness and community engagement for the disaster risk management (MoEST, 2017).

On top of the above mentioned policies, Centre for Education and Human Resource Development (CEHRD) introduced a policy called minimum school safety package in 2018 to ensure the basic things are in place in each school for the safety and security of human life and educational materials inside the schools. According to Concordia University (2016), school safety not only provides the sense of security among the students but also it supports them to have better academic performance. This minimum school safety package too is intended to be implemented in all schools to make the students feel safe and excel their academic performance. It is a duty of every nation to make the learning environment safer (Applebury, 2021) and this policy overtly focuses to fulfil the duty of nation ensuring the minimum safety in school.

Although the government of Nepal has introduced minimum school safety package to roll it out in every school, implementation of this policy faces significant challenges. Despite the constitutional mandate empowering 753 local governments to manage school education up to grade 12 (Constitution of Nepal, 2015), the absence of clear directives hampers effective planning and execution of minimum safety package as these tools and guidelines are yet to be mainstreamed into the management of schools (Yadav & Kristen, 2022). As indicated by Ghimire (2021), there are similar several policies and the stakeholders get confused which one to implement in school. Thus, this policy is focused to identify the understanding of different level of policy actors on minimum school safety package. Being an independent researcher, I would like to explore how the policy text are written and how the policy actors have actually understood it.

Objective of the Study

This study is intended to explore the understanding of stakeholders on minimum school safety package at various level of policy actors.

Research questions

To fulfil the above mentioned objective, I have asked the policy actors to describe their understanding of minimum school safety package including what the policy is about, why this policy has been implemented, how they are implementing it. In this way, research questions are developed to get the in-depth view and the lived experience of the participants (Craft, 2000).

Policy Framework and Methodology

My research underpinned the policy sociology, aiming to explore diverse understanding and interpretations of different level of policy actors of minimum school safety package. The policy sociology is a field that focuses on understanding current social situations while considering their historical roots and cross-cultural differences (Levinson et al., 2020). Policy sociology mainly reflects a specific viewpoint on what reality is like and how things should be done, and this perspective emphasizes how policies interact with both official laws and informal social norms have same or different understanding (Lashaw, 2018). It primarily emphasizes on how people organize their actions and distribute resources, whether through formal rules or informal customs (Sandler, 2018). According to Shore & Wright (1997), policies are not just about what governments decide; they're also shaped by the diverse ways people live and interact in society.

As policy sociology helps to examine its understandings at different layers, I have used the framework developed by Hornberger & Johnson (2007) to explore the complex layers understanding of key policy actors. This methodological framework provides a structured lens through which to comprehensively investigate the complexities of any policy, considering key dimensions such as agents, goals, processes, discourses, and dynamic social and historical contexts. This framework has allowed me to explore whether the intended objective of the policy is similar to the actual understanding of the policy actors at different level or not.

This research employs the in-depth interview method to collect the first hand data. I believe that the lived experience of the teachers can only be collected through qualitative information. On top of the pre-determined questions, I have asked many probing questions to get the in-depth idea. These probing questions not only helped to understand the inner views of the respondents, but also enriched the data for this research. Three respondents have been purposefully selected ranging from teacher, head teacher and the undersecretary from ministry of education, science and technology. All the data has been coded and analyzed

through thematic approach (Riessman, 2005, Palinkas et al., 2015). I have assigned the code for the participants of interview as school teacher, head teacher, and undersecretary of ministry of education. All the ethical consents have been taken before interviewing them and they are well informed that the data will be anonymously used for research purpose.

On top of the in-depth interview, I have analyzed the actual text of the policy. I have tried to create themes of the textual analysis too and compared the theme of the policy text to the understanding of the key policy actors derived from in-depth interview. Critical discourse analysis (Fairclough, & Wodak, 1997) has been used to analyze the policy text.

Policy Provision: Content Analysis

Content analysis involves systematically analyzing the content of texts to identify themes, patterns, and trends. Here, I have used the Critical Discourse Analysis (CDA) to analyze this policy. CDA examines the ways in which language is used to construct social reality, power relations, and ideologies. It is particularly useful for understanding how educational policies are framed and how they shape public discourse.

While analyzing the text, I found that the policy mainly consists of four components and specifies sixteen different activities. The first component is about the role of School Management Committee (SMC) to ensure minimum safety within school premises. Under that component, following four activities are specified. First activity under this component is defining roles and responsibility of SMC. Similarly, next activity is the selection of Disaster Risk Reduction/School Safety and Gender, Equity and Social Inclusion (GESI) focal teachers, third activity is the capacity development of head teachers/ DRR focal teachers on School's Disaster Risk Reduction's overarching concept and including participatory assessment tools and planning for school safety and fourth activity is especially focused on orientation of teachers/School Management Committee/Parent Teacher Association and students at school level by head teacher or the DRR focal teacher on school safety and continuation of schools and conduct school's Vulnerability Capacity Assessment (VCA) and multi hazard risk assessment including the potential issue for child protection.

The second component is for safe learning facilities and under this component, there are four activities which are i) infrastructural safety assessment, ii) development of minimum school infrastructural safety plan including school maintenance activities iii) School level infrastructural risk reduction activities including maintenance and iv) quality assurance in all kinds construction activities. Third component is for school disaster (risk) management and under this component too, there are four activities which are i) development of school safety

informed SIP covering school safety, risk reduction and child protection activities and school preparedness and response /continuity plan based on hazard risk assessment, with allocation of resources ii) Small scale structural/non-structural mitigation activities as reflected in the (SIP) plan iii) School disaster preparedness for response activities as reflected in the (SIP) plan and iv) Coordination by school with local stakeholders. Fourth component is related to disaster reduction and resilience education which consists of following four activities: i) school Curriculum include session on hazard/disaster and School safety/DRR measures and child protection measures for each class level ii) extra curriculum activities/informal promotional events conducted outside the classroom setting to promote disaster preparedness awareness among school teachers/students/SMC and parents iii) raising Awareness on Child protection issues in school and iv) interaction session between SMC & parents to raise awareness on DRM/school safety at school/community level.

The policy has specified the expected outcomes for each component and school level and palika level indicators for each activities including their means of verification for each activities' indicators. In this way, the policy is very specific and easy to measure whether the schools meet the specified minimum condition to be called the safe school

Policy Purpose

To regulate the day to day activities of the social institutions, government introduces many policies. The main objectives of any policies are to provide the clear way out on what should be done and what should not be done. Safe school was a buzzing phrase after the mega earthquake in Nepal in 2015. Due to its friable geographical structure, Nepal is known as a disaster-prone country and has witnessed several earthquakes and other natural catastrophes in recent years (Ghimire, 2021). Due to the devastating earthquake in 2015, thousands of people lost their lives, millions of students got injured and thousands of schools' buildings adversely damaged then everybody started to realize the importance of safe school and policy related to school safety. According to MoEST (2018), the main purposes of minimum school safety package are to reduce disaster risks in schools, including the establishment of basic safe learning facilities and life saving measures, enhance school level preparedness actions to ensure a continuity of education for children in the aftermath of disasters and build a sense of minimal level confidence and security among children, school faculties, and parents towards resilience in education. Further, the policy clearly states that, this package is to be implemented in every school either from external funding or from schools' own resources since this policy focuses on minimum things to be done to keep the school safe. It was hoped that the minimum school safety package will lay down a strong foundation to schools by helping the stakeholders to identify the possible hazards, their risks

and prepare the risk mitigation plan in advance to avoid the future possible damages. On top of that, it is aimed to promote resilience education among the teachers, students and guardians and foster a sense of safe to continue the teaching learning activities. This policy is also aimed to ensure the child protection in schools.

Result and discussion

Qualitative data gathered through in-depth interviews and document analysis are subjected to thematic analysis. The process involves identifying recurring patterns, themes, and narratives related to the understanding of key policy actors towards the minimum school safety package. Through an iterative approach, I have attempted to capture the how the policy is drafted and how the key policy actors have understood it. In this section, I have explored, analyzed and interpreted the evidences. I have collected data through various means primarily from interview transcripts, diary writing after interaction, and the analysis of content from secondary literature and selected and combined 'what is useful' for the purpose of the study (Madison 2005). Then, I conducted a 'reconstructive analysis' (Carspecken 1996) by doing 'a deductive thematic coding' (Linneberg & Korsgaard 2019), which allowed me to 'code with analysis in mind' (Carspecken 1996). The views shared by the participants are grouped into three main themes: understanding is different, jargon vs colloquial language and four blinds and an elephant.

Understanding is different

While analyzing the text of the policy and the actual understanding of policy actors about the policy, I found the divergence between them. The policy talks about the four components including capacitating the school management committee on identifying the risks, the second component emphasizes about the learning facilities third component stresses on planning to mitigate the possible risks and hazards and final component is related to disaster reduction and resilience education. However, there is a misconception among the policy actors that implementing basic safety measures in schools is solely about constructing physical infrastructure, such as sturdy buildings and fences. While infrastructure is undoubtedly crucial, focusing solely on this aspect overlooks other critical components of school safety, such as emergency preparedness plans, teacher training on safety protocols, and community engagement in safety initiatives. Without addressing these holistic aspects, the effectiveness of any safety package may be limited. Here, head teacher of one of the school says *'I do not know what the policy is about but I guess this is more related to how to keep the school safer. While talking about school safety, structure of school building comes in mind'*. He was not aware of whether this policy exists or not. While digging out further, he is not sure what makes the school building safe. Similarly, school teacher expressed that

'this is about the preparedness. It is related to preparedness of any possible disaster mainly focusing what are the basic things we should do to be safe from that disaster. It also covers what to do after the disaster in spite of cautious preparedness for example rescue and managing the residence for the people. After that it leads to the reconstruction phase.'

Here, the teacher talked about all three phases of disaster risk management i.e. preparedness, response and reconstruction but minimum school safety package does not talk about the reconstruction phase. Neither the policy talks about managing the residence for the people. So, I saw certain differences between what is written in policy and how the policy actors have understood it.

Similarly, another difference in understanding is about the sustainability. I found that policymaker understood that once safety measures are put in place, they require minimal maintenance or updates. However, ensuring ongoing safety requires continuous monitoring, evaluation, and adaptation to changing circumstances. This includes regular drills to rehearse emergency procedures, periodic assessments of infrastructure for weaknesses or deterioration, and updates to safety protocols based on evolving risks. Neglecting the need for sustained efforts in this regard could leave schools vulnerable to unforeseen hazards. Policy also talks about the continuous allocation of resource for the school safety. Here one of the undersecretary from the ministry of education, science and technology shared

'Pillar two and three do not require huge resources as they are more related to the knowledge. Small actions may bring big impact and donor agencies are also working pillar two and three so I think pillar two and three are being implemented in comparison to pillar one. Since this is the responsibility of local government, MoEST is not allocating enough budget now'.

Here, undersecretary tries to put aside the responsibility to the local government but the actual policy clearly mentioned that keeping school safe is everyone's responsibility. In this way, I found that there is difference between what policy says and what policy actors have actually understood the policy.

Jargon vs colloquial language

Another major finding of this research is the policy uses many jargon words like 'pillar one', 'Vulnerability Capacity Assessment', 'non-structural hazards', 'Standard Operation Procedures' and so on. However, while talking to the policy actors, only the undersecretary of ministry of education used such language but the head teacher and the teacher used very colloquial language which we generally find in lay man's speech.

The policy says in introduction as *'this package envisages critical activities that the schools can manage to implement them based on the guiding principle of their*

relevance, soundness, feasibility, scalability and contextualized, in all schools in Nepal and include structural, infrastructural and non-structural measures (MoEST, 2018).’ Here, we can see lots of jargons but the school teacher expressed his understanding in a simple language as *‘keeping the things like blackboard and cupboard safely’* instead of saying *‘non-structural measures’*. Similarly, both policy document and the undersecretary used the terms *‘pillar three’* and *‘resilience education’* frequently but the school teacher used *‘extracurricular activities related to school safety’*, *‘earthquake drill’* and *‘lightening drill’* to explain the same concept.

Four blinds and an elephant

According to Mubita (2021), “A secure school encompasses all measures taken to combat threats to learners, teachers, support staff and property in education environments”. However, in this research, I found that all the three layer’s policy actors understood the policy in different ways as the blind people explained the shape and size of elephant in one of the Nepali folk tale. Undersecretary who is working at ministry of education shared her understanding of policy relatively in a wider way. She told that grievance management comes under school safety where as other policy actors did not mention about it. Undersecretary shared as

‘schools have initiated the grievance management. Earlier, it was not regarded as a part of school safety but there are many organizations who are working on grievance management. There is a box in every schools where students can put their grievance and we are monitoring them so it is under school safety’.

The head teacher knew nothing about the policy rather he just guessed what the policy is about. He shared that he has never got formal information about this particular policy. So he just guessed the possible content of that package and mentioned the structural aspects like school building, railing, electricity wire of toilet etc. He did not mention anything about the school level plan. Then I asked about their current practices to make the school safe and he shared that he has been coordinating with school management committee and municipality to get fund for railing and earthquake resilient building. I asked whether they are informing the students on how to become safe in different disaster like fire, earthquake, road accident and he said no. I asked whether he has maintained any emergency contact number like ambulance, fire brigadier and local police and he said he has the number of ward office and police station only. Finally, I asked since there is a policy, how a school leader like him can implement its basic things in school and he replied that school has many things to deal with and he does not have time to care such less necessary tasks. He said

‘students are decreasing, there are no computer and science lab and I myself have to take 3 class per day so I do not have enough time to take care of all those things but if municipality organizes any such trainings I am happy to implement them.’

This shows that he is not even ready to take initiation without the formal directives from the concerned authorities like municipality, ward, education coordination committee and so on. In the same vein, school teacher's understanding is also separate than the head teacher and undersecretary. Unlike the undersecretary who talked more about the theoretical angle of the policy, school teacher shared the real scenario they are facing at school. He said

'The first challenge is related to the mindset of the stakeholder. They were not interested to develop school safety plan. Most of them shared that the earthquake is already gone and it takes so many years to come back, lightening is already gone so it is not necessary to develop plan. We convinced them hardly and develop the plan but another challenge was to implement the plan. For example, we scheduled the date for extracurricular activities related to school safety but the school did not conduct it.'

In this way, same policy was interpreted differently from three different layer of policy actors depending their level of involvement in implementation on policy.

Conclusion

In conclusion, the article highlights the understanding of different policy actors at various levels regarding the minimum school safety package. Findings reveal that there is no uniformity in comprehension, with some focusing solely on physical infrastructure while overlooking other critical aspects such as emergency preparedness, teacher training, and community engagement. Moreover, it was revealed that the policy actors mainly sitting at center level use the jargon words and the policy actors working into the field use day to day language. The use of jargon in policy documents creates a gap in understanding between policymakers and grassroots-level stakeholders. Additionally, varying interpretations of the policy highlight the need for better communication and coordination among stakeholders for effective implementation. Until and unless there is a uniformity of the actual interpretation of the policy text among all the stakeholders, its implementation is likely to be weak. Overall, the article underscores the importance of bridging the gap between policy formulation and grassroots-level understanding to ensure the successful implementation of school safety measures.

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Teachers' Adequacy from Students' Perspective: A Case Study of JS Murarka Campus

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Abstract

Teacher adequacy involves possessing the necessary skills and knowledge to effectively facilitate students' learning and development. This research investigates B.Ed. students' perceptions of teachers' adequacy at JS Murarka Multiple Campus Lahan, Siraha, focusing on dimensions such as knowledge, skills, teaching methods, and communication. Employing a case study design with qualitative and quantitative approaches, data was gathered from 35 purposively selected students through a structured questionnaire and unstructured observation. The findings revealed positive sentiments regarding teachers' preparedness and communication, but also highlight areas for improvement, including diversified teaching methods and enhanced technology use. Despite limitations like being confined to B.Ed. Program, this study offers valuable insights for educational policies and strategies at this Institution, emphasizing the importance of continuous teacher training and innovative pedagogical approaches for an effective learning environment.

Keywords: B.Ed. students, Case study, JS Murarka Multiple Campus, Teacher adequacy

Introduction

Teacher adequacy can compromise the quality of education (Boyd & Barbarin, 2008). Effective teachers are the backbone of quality education, shaping the academic success and future prospects of their students. In the context of B.Ed. programs, which prepare aspiring educators for their crucial role in the classroom, the adequacy of teachers takes on an even greater significance. Ensuring qualified and pedagogically proficient teachers not only impacts students' learning but also lays the foundation for a thriving educational system. 'No single element is more essential to students' success than excellence in teaching. Fine buildings, equipment, and textbooks are important, but it is the skill and dedication of the teacher that creates a place of learning' (Hickok, 1998, as cited in Gautam, 2016).

Education is a fundamental pillar in the development of individuals and societies, and the role of teachers is pivotal in shaping the learning experience. The effectiveness of education is closely tied to the adequacy of teachers in various dimensions, as perceived by students.

The concept of teacher adequacy encompasses various facets, including knowledge and skills, teaching methods and delivery, rapport with the students as well as communication and feedback. The contemporary educational paradigm places a strong emphasis on the effectiveness of teaching and its direct correlation with student success. Mulyasa (2008, p. 5) states 'Teachers largely determine the success of students, especially in relation to the teaching-learning process, and are the most influential component towards the creation of quality educational processes and outcomes.' Understanding the components that contribute to teacher adequacy is vital for educational institutions seeking to enhance the overall quality of learning. As the educational landscape continues to evolve, the need for effective teaching becomes increasingly paramount. Teacher adequacy not only influences academic achievement but also plays a significant role in shaping students' attitudes towards learning. In the contemporary educational landscape, teacher adequacy in knowledge and skills serves as the bedrock for fostering an enriching learning environment. The proficiency of educators in their subject matter not only influences students' understanding but also plays a crucial role in igniting curiosity and passion for the subject. Furthermore, the methodological approaches employed by teachers significantly contribute to the overall learning experience. Notably, effective communication and constructive feedback are integral components of the teacher-student dynamic.

Research by Keane and Labhrainn (2005) indicates that evaluation systems lead to improvements in results. In support of this perspective, Ferguson (2012) argued that university administrators contend that students' responses enhance teaching and learning, extending the argument to elementary and secondary school contexts. Using a substantial sample of secondary school students, Ferguson (2012) measured effective teaching, analyzing data from 1264 English Language Arts classrooms and 1094 math classrooms. The study found that students' responses were consistently valid and stable over time at the classroom level. This discussion highlights that student perceptions and opinions can be crucial inputs for enhancing teaching and learning across elementary, middle, and high schools.

This research specifically focuses on B.Ed. students of JS Murarka Multiple Campus who are actively preparing to become teachers themselves. It aims to provide nuanced insights into teacher adequacy from the perspective of the primary stakeholders-the students. According to the Annual Report 2079-80, published by J.S. Murarka Multiple Campus was established in 2044 BS which now

stands as a beacon of research-based education at Lahan, Nepal. From +2 levels to postgraduate levels in Humanities, Education, Management, and Science, the campus empowers graduates to tackle societal challenges. Acclaimed for its QAA accreditation and the distinction of Nepal's best community campus (2076), the Campus remains steadfast in its commitment to enhancing quality education, mobilizing local resources, and expanding research activities. This unwavering dedication serves as the cornerstone for our research, drawing inspiration from the campus's rich history and the ever-evolving educational landscape. Annual Report (2079/80) showed there were altogether 942 students enrolled in B.Ed. program in 2080 BS and 23 teachers were involved in teaching them. This work was designed around finding out how effectively the teaching-learning was going for this program from the students' perspectives. Understanding students' perceptions of teacher adequacy is crucial for improving the quality of education at any institutions. Students' evaluations of teaching serve as a generally reliable and valid source for evaluating teachers. Effective teachers possess strong knowledge, diverse skills, engaging teaching methods, and clear communication, all of which contribute significantly to student learning and achievement. That's to say, this study was guided by the question: 'How do BEd students of JS Murarka Multiple Campus perceive the adequacy of their teachers in terms of knowledge, skills, teaching methods, and communication?' Addressing this problem, this study aimed at exploring B.ED. students' perceptions of their teachers' adequacy across various dimensions: knowledge, skills, teaching methods, and communication.

Methodology

This study employed a case study design, to follow Wallace (2010), is 'an in-depth study of a particular student, teacher, class, school, etc.' (p. 255). Specifically, it was an exploratory case study aimed at understanding the perceptions of BEd students at JS Murarka Multiple Campus regarding their teachers' adequacy. The study utilized both qualitative and quantitative approaches, as supported by Kumar (2011), 'The case study, though dominantly a qualitative study design, is also prevalent in quantitative research.' (p. 126). Both primary and secondary data were used. Primary data was collected through a structured questionnaire and an unstructured observation. Different books, research journals and annual report of the campus, which are relevant to this research served as the secondary data source. The target population consisted of BEd students from four different years at the Campus. According to the Annual Report 2079-2080, the campus had a total enrollment of 940 BEd students. Using a non-probability strategy, we purposefully selected 35 regular students with consistent attendance to ensure accurate information based on their regular impressions of their teachers' adequacy. We met with the students in a separate room, explained the study's purpose, and requested them to complete the questionnaire. We assured them that the information would

be solely used for this research report and not for any other purposes. Additionally, we observed ongoing classes from outside to gather various kinds of information relevant to the research.

Results Analysis

Demographic analysis

The demographic profile of respondents can be seen in Table 1, indicating that male respondents (60%) outnumbered female respondents (40%). Meanwhile, the largest group aged 21-24 (45.71%). Third-year students comprised the biggest chunk (28.57%), followed by first and second-year ties (25.71% each). Moreover, Mathematics led subject specializations with 22.86%, closely followed by a tie between Population and Nepali (22.86% each).

Table 1

Respondents' profile of the study

Constructs		Responses	
		Number	Percentage (%)
Gender	Male	21	60
	Female	14	40
Age Group	15-20	12	34.28
	21-24	16	45.71
	25-28	7	20
Year of Study	First Year	9	25.71
	Second Year	9	25.71
	Third Year	10	28.57
	Fourth Year	7	20
Subject	Mathematics	8	22.86
Specialization	Population	8	22.86
	Nepali	8	22.86
	Health	7	20
	English	4	11.43

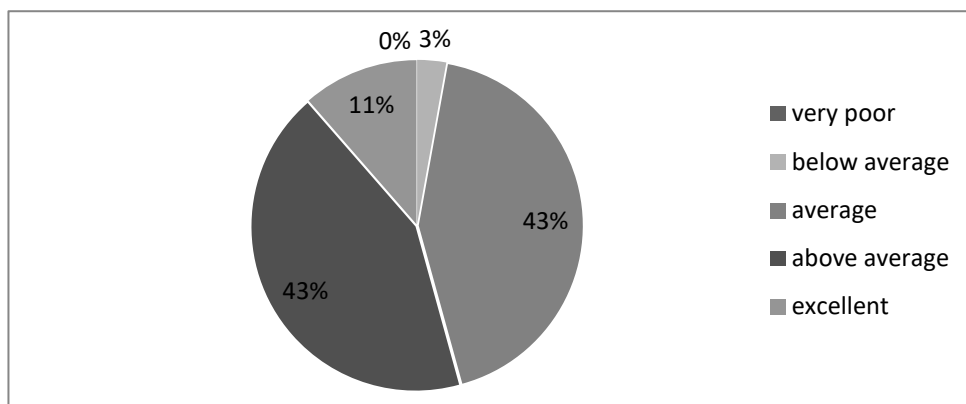
Analysis of Questionnaire

The four different parts of the questionnaire with 26 close-ended and 3 open-ended questions are analyzed using tables and pie-charts below.

Teachers' preparedness

Figure 1

Teachers' adequacy in knowledge and skills



The pie-chart in figure 1 shows that from all 35 respondent's view, 42.85% students believed that their teachers were above average and 42.85% students believed their teachers were average prepared for their classes. Similarly, 11.42% students viewed that their teachers' preparation was excellent. While only 2.85% students experienced below average. Thus, 0% of students selected very poor. So, it showed the majority of students found that their teachers were well-prepared for classes, with a significant percentage rating the preparation as either above average or excellent.

Table 2

Evaluating teachers' adequacy: Proficiency in understanding, updates, clarity, and practical application

QN	Question	Great extent		Somewhat		Very little		Not at all	
		Ss	%	Ss	%	Ss	%	Ss	%
2.	Do you think your teachers have a deep understanding of the subject matter they teach?	18	51.43	14	40	3	8.57	0	0
3.	Are your teachers up-to-date with the latest developments in their field?	11	37.43	17	48.57	7	20	0	0
5.	Can your teachers clearly explain complex concepts and theories?	14	40	20	57.14	1	2.85	0	0
6.	Can your teachers apply their knowledge to real-world scenarios?	20	57.14	12	34.28	2	5.71	1	2.85

As regards to question number 2, Table 3 shows that out of 35 respondents, 51.43% of students believed their teachers had a deep understanding of the subject matter to a great extent, 40% students mentioned somewhat, and 8.57% indicated very little understanding, with 0% stating not at all. This is an indication that most of the students expressed confidence in their teachers' deep understanding of the subject matter they taught.

Question 3 depicted that out of 35 respondents, 48.57% students believed that their teachers were somewhat up-to-date with the latest developments in their field, while 37.43% students stated as great extent, and 20% very little, with no students (0%) mentioning that their teachers were not up-to-date at all. The findings show that the majority of students perceived their teachers were reasonably up-to-date with the latest developments in their field, but there was room for improvement, as a significant percentage (20%) expressed some level of concern about limited awareness.

In relation to question 5 (Can your teachers clearly explain complex concepts and theories?), out of 35 respondents, 57.14% students found their teachers were capable of explaining complex concepts and theories to some extent, while 40% students believed they did it to a great extent. Only 2.85% expressed concerns about very little clarity, and none (0%) believed their teachers could not clearly explain complex concepts and theories at all. The majority of students perceived their teachers as effective in explaining complex concepts and theories, with only a minor percentage (2.85) expressing concerns about limited clarity.

In connection to the question 6 (Can your teachers apply their knowledge to real- world scenarios?), the table 3 highlights that out of 35 respondents, 57.14% students got their teachers could apply their knowledge to real-world scenarios to a great extent, while 34.28% students chose somewhat, 5.71% very little, and 2.85% not at all. The result shows that students' perception of their teachers' real-world knowledge application was largely positive, with a notable majority, though a small minority felt the application was limited.

Table 3

Evaluation of teaching practices: Students' feedback on question handling, critical thinking, participation, and feedback

QN	Questions	Always		Very often		Sometimes		Rarely		Never	
		Ss	%	Ss	%	Ss	%	Ss	%	Ss	%
4.	Do your teachers effectively address your questions and concerns related to the course materials?	27	77.14	4	11.42	2	5.71	2	5.71	0	0
7.	How often do your teachers challenge you to think critically and creatively?	8	22.86	12	34.28	11	31.43	1	2.85	3	8.57
8.	How often do your teachers encourage you to ask questions and participate in class discussions?	12	34.28	7	20	9	25.71	4	11.42	3	8.57
9.	Do your teachers provide constructive feedback on your work?	7	20	6	17.14	15	42.85	5	14.28	2	5.71

In Table 3, related to QN 4, the finding shows that out of 35 respondents, 77.4% students viewed that their teachers always addressed their questions and concerns effectively. Another 11.42% students indicated that this happened very often. Only 5.71% students expressed that it occurred rarely. The findings prove that substantial majority perceived effective teacher responses, and a noteworthy percentage observed very frequent addressing of concerns. Similarly, QN 7 shows that out of 35 respondents, 22.86% students perceived their teachers always challenging them to think critically and creatively, 34.28% reported very often, 31.43% sometimes, 2.85% rare, and 8.57% never. Thus, majority of students felt positively challenged to think critically and creatively by their teachers, whereas a small group (11.42%) experienced less frequent or no such challenges. In reference to QN 8, 34.28% students reported always, 20% very often, 25.71% sometimes, 11.42% rarely, and 8.57% never. So, the condition of asking questions and participating in class discussions, reflecting diverse experiences with teachers' encouragement was positive with the teachers. Moreover, in connection to question number 9 (Do your teachers provide constructive feedback on your work?), 42.85% revealed that their teachers sometimes provided feedback on their work, followed by 20% students who experienced it always, 17.14% very often, 14.28% rarely, and 5.71% never expressing diverse perceptions regarding the frequency of feedback from the teachers. On the basis of above analysis, it is concluded that the majority of students expressed positive experiences, with a significant percentage stating that their teachers always or very often provided constructive feedback on their work; however, a small but notable portion reported occasional or rare feedback.

Teacher adequacy in teaching methods and delivery

Table 4

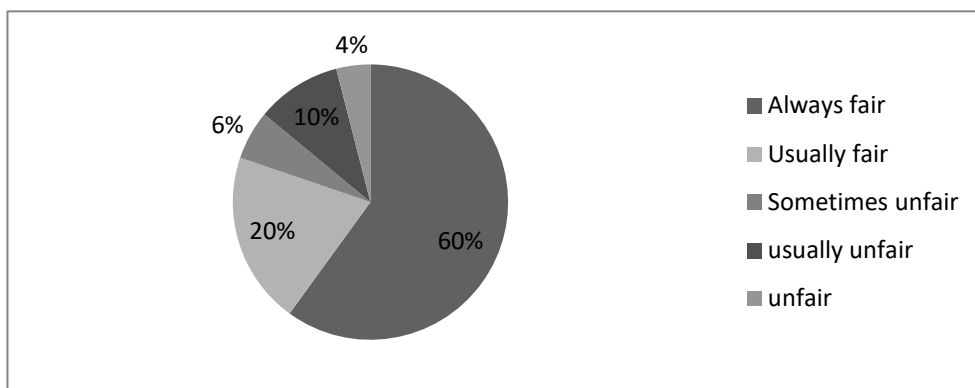
Evaluation of Teach and ICT Impact

QN	Questions	Very poor		Below average		Average		Above average		Excellent	
		Ss	%	Ss	%	Ss	%	Ss	%	Ss	%
10.	How engaging and interactive are your teachers in their teaching methods?	2	5.71	1	2.85	24	68.57	4	11.42	4	11.42
15.	How effectively do your teachers use ICT and other resources to enhance learning?	2	5.71	9	25.71	15	42.85	7	20	2	5.71

For question number 10, 68.57% students perceived the teaching methods of their teachers were average, 11.42% above average, 11.42% excellent, and 5.71% very poor. Similarly, regarding the question number 15, 42.85% students perceived the use of ICT and other resources by their teachers as average, 20% above average, 25.71% below average, 5.71% very poor, and another 5.71% as excellent. The findings show that the majority of students feel average regarding the effectiveness of use of ICT and other resources by their teachers to enhance learning.

Figure 2

Fairness of teachers in internal evaluation process



The pie-chart in above fig. 2 shows that out of 35 respondents, 60% students rated for always fair and 20.23% had usually fair option for teachers in internal evaluation process. Similarly, 5.77% found sometimes unfair, 10% categorized usually unfair, and 4% found unfair. So, it is concluded that the majority of the students had positive satisfaction for teachers' internal evaluation process.

Table 5*Evaluation of teaching approaches: Clarity, ICT usage, and collaboration opportunities*

QN	Question	Always		Very often		Sometimes		Rarely		Never	
		Ss	%	Ss	%	Ss	%	Ss	%	Ss	%
13.	Do your teachers use clear and concise language when explaining concepts?	21	60	11	31.43	3	8.57	0	0	0	0
14.	How often do your teachers use ICT while teaching to enhance learning?	5	14.28	7	20	14	40	3	8.57	6	17.14
16.	Do your teachers provide opportunities for group work or collaboration?	7	20	7	20	9	25.71	2	5.71	10	28.57

In the table 5, in responses to the question 13 the result indicates that out of 35 respondents, 60% students reported that their teachers always use clear and concise language when explaining concepts, 31.43% very often, 8.57% sometimes, and with none (0%) reports rarely or never occurrences. So, it is concluded that students largely felt their teachers excel in delivering clear explanations, contributing to a positive overall perception of effective communication. In connection to question number 14, 14.28% students selected always, 20% very often, 40% sometimes, 8.57% rarely and 17.14% never happens. The findings as per the above analysis concluded that the majority of students reported that their teachers used ICT sometimes or rarely, with a small percentage reporting that it is used always or very often. Regarding the question number 16, 20% students selected always, another 20% very often, 25.71% sometimes, 5.71% rarely, while 28.57% stated their teachers never offer chances for group work or collaboration. The findings state that the majority of students did not frequently get opportunities for group work or collaboration.

Table 6*Evaluation of engagement and ESA strategies in education*

QN Questions	Yes		No	
	Ss	%	Ss	%
11. Do your teachers use a variety of teaching methods to keep you engaged?	20	57.14	15	42.85
17. Do your teacher apply ESA (engage, study and activate) procedures while teaching?	25	71.42	10	28.57

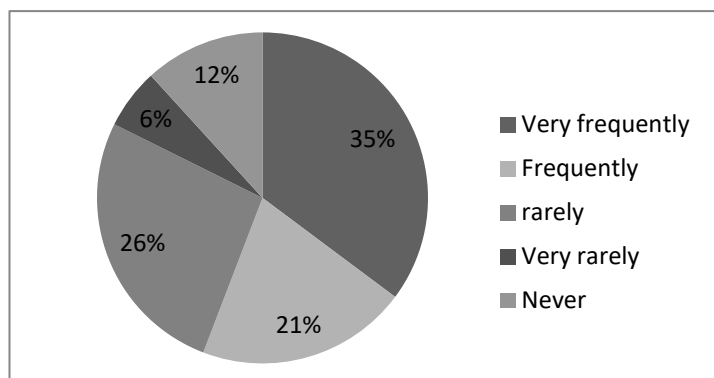
In Table 6, the responses to the question number 11 shows that 57.14% students responded *Yes* indicating their teachers used a variety of teaching methods to keep them engaged, while 42.85% students responded *No* to this question. Similarly, for

QN 17, 71.42% students responded *Yes*, confirming that their teacher employ ESA procedures, and 28.57% selected *No* denying such a way by their teachers. Thus, it shows that the majority of students claimed that their teachers applied ESA procedures while teaching, while a small percentage mentioned their teachers did not.

Teachers' adequacy in communication and feedback

Figure 3

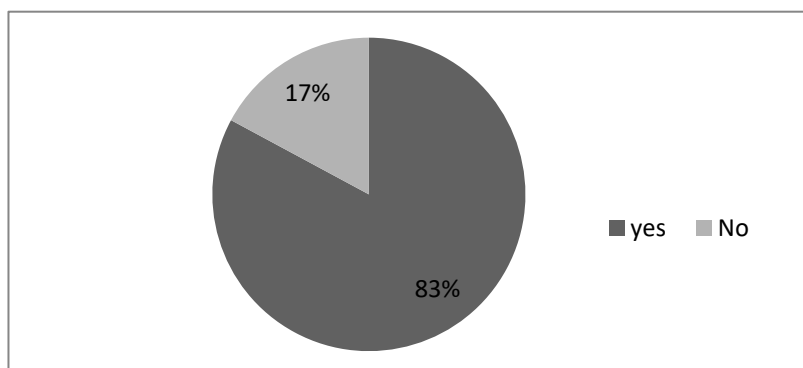
Approachability of teachers outside of class hours



The pie-chart in Fig. 3 shows that in connection to question number 18 (How approachable and accessible are your teachers outside of class hours?), 34.14% students reported teachers being frequently approachable and accessible outside of class hours, while 20% indicated frequently. Additionally, 25.71% stated rarely, 5.71% very rarely, and 11.42% never. The findings show that the majority of students reported that their teachers were approachable and accessible outside of class hours, with a smaller percentage stating rarely or never.

Figure 4

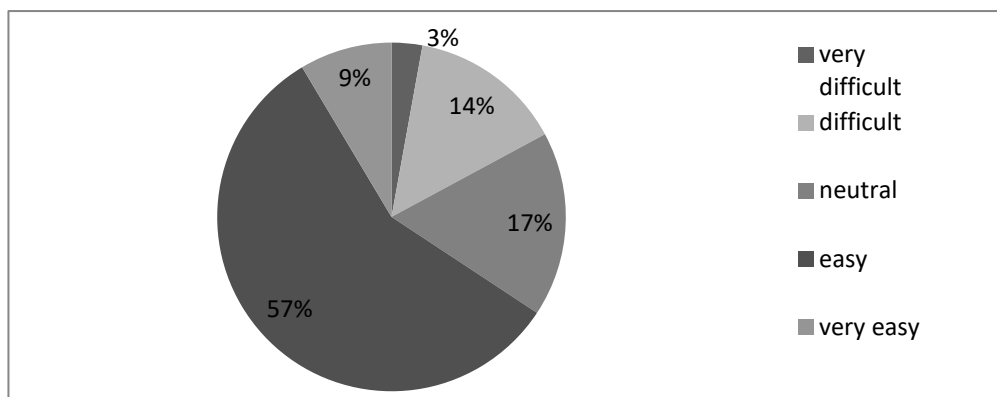
Teachers' receptivity to students' feedback on teaching methods and course content



The pie-chart in above Fig. 4 shows that in relation to question number 19 (Are your teachers open to receiving feedback from students regarding their teaching methods and course content?), out of 35 respondents, 82.85% students selected yes, indicating that their teachers were open to receiving feedback on their teaching methods and course content, while 17.17% no to this question. The findings indicate that the majority of students believed that their teachers were open to receiving feedback on their teaching methods and course content, yet a minority did not share the same perception.

Figure 5

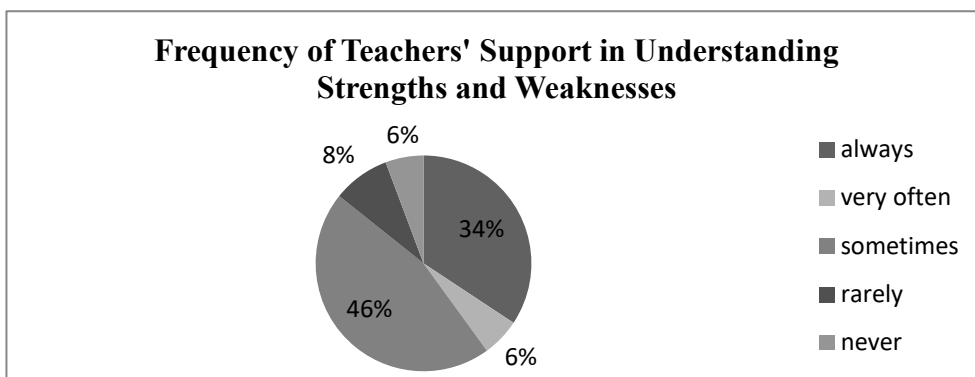
Comfort level approaching teachers for questions and concerns



The pie-chart in above Figure 5 shows that in relation to question number 20 (How comfortable are you approaching your teachers with questions or concerns related to personal or academic issues?), out of 35 respondents, 57.14% students found it easy to approach teachers with questions or concerns. 17.14% responded difficult for them to approach teachers in such situations. 14.28% neutral about approaching teachers for personal or academic issues. 8.57% very easy, while 2.85% very difficult to approach teachers with questions or concerns. Judging from the responses of the question, it is clear that the majority of students found it easy to approach teachers with or concerns related to personal or academic issues, while a significant percentage of students still faced difficulties or felt neutral about it.

Figure 6

Frequency of teachers' support in understanding strengths and weaknesses

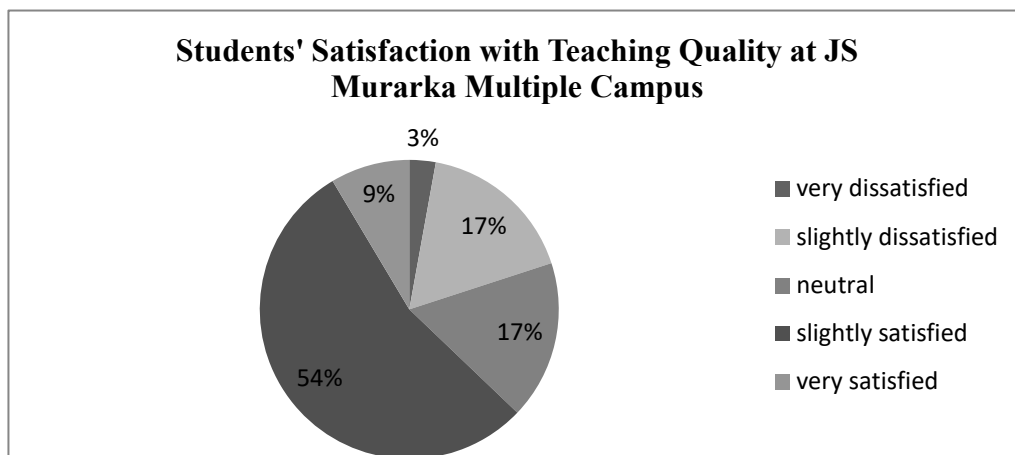


The pie-chart in above Figure 6 shows that in relation to question number 21 (How often do your teachers help you understand your strengths and weakness?), out of 35 respondents, 34.28% students mentioned always receiving help from their teachers in understanding strengths and weaknesses, while 5.71% students reported experiencing it very often. Moreover, 45.7% stated assistance sometimes, 8.57% rare occurrences, and 5.71% never receiving such support. As the findings suggest, the majority of students received some forms of help from their teachers in understanding their strengths and weaknesses, with a small percentage reporting never receiving any support.

Part 4: Overall Satisfaction and Improvement Suggestions

Figure 7

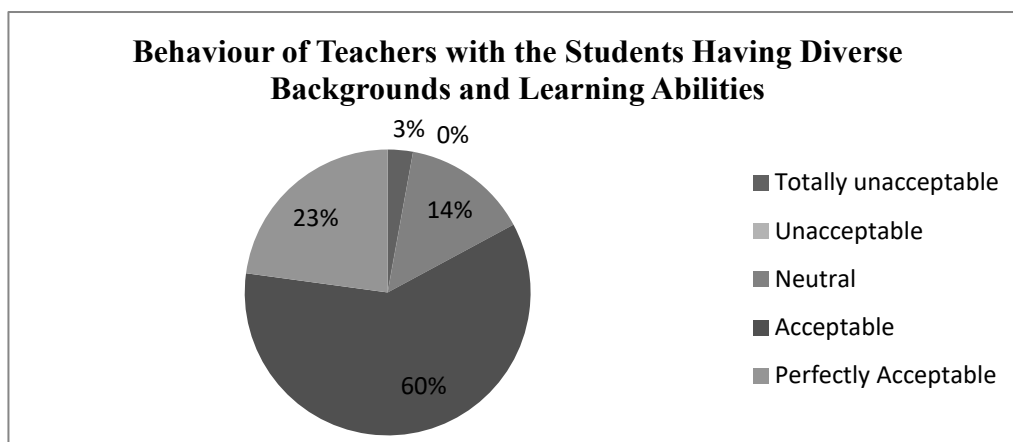
Students' satisfaction with teaching quality at JS Murarka Multiple Campus Lahan



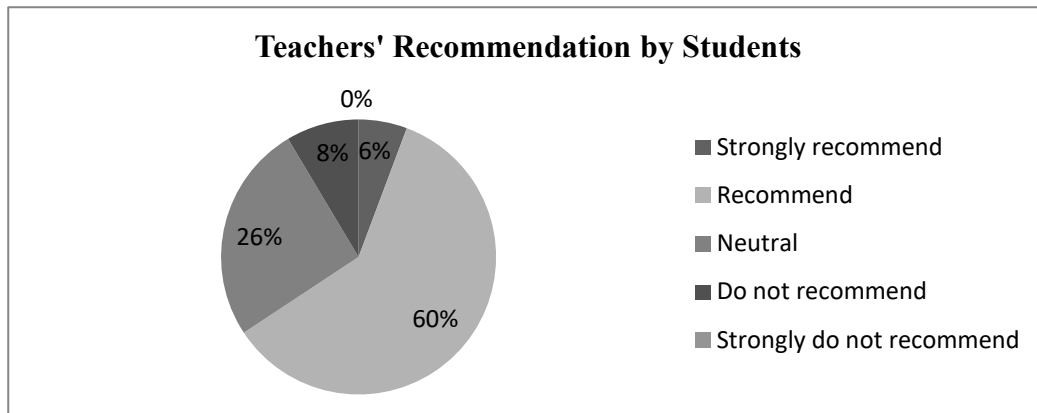
The pie-chart in above Figure 7 illustrates regarding question number 22 (Overall, how satisfied are you with the quality of teaching at JS Murarka Multiple Campus?) that out of 35 respondents, 54.28% students responded that teaching quality at JS Murarka Multiple Campus slightly satisfying, followed by 8.57% who expressed being very satisfied. Meanwhile, 17.14% were neutral, 11.74% slightly dissatisfied, and 2.85% very dissatisfied. So, it is clear from the above analysis that the majority of students at JS Murarka Multiple Campus were the teaching quality slightly satisfying, with a smaller percentage expressing very satisfied or dissatisfied opinions.

Figure 8

Behavior of teachers with the students having diverse backgrounds and learning abilities



The pie-chart in above Figure 8 shows regarding question number 23 (How do your teachers behave the students of their poor background or learning abilities?) that out of 35 respondents, 22.85% students found their teachers' behavior perfectly acceptable with the students with poor background or learning abilities, followed by 60% students who found it acceptable. Meanwhile, 14.28% students felt neutral and none (0%) found unacceptable, while 2.85% totally unacceptable. The findings highlight the varying perceptions of students towards teachers' behavior with the students of their poor background or learning abilities. The majority of students got it acceptable, a small percentage remaining neutral, and an even smaller percentage considering it totally unacceptable.

Figure 9*Teachers' recommendation by students*

The pie-chart in Figure 9 shows that in relation to question number 24 (Would you recommend your teachers to other students?), out of 35 respondents, 60% students selected 'recommend', 25.71% opted for 'neutral', 8.57% chose 'do not recommend', 5.71% chose 'strongly recommend' and no students selected 'strongly do not recommend' for their teachers' recommendation to other students.

Three open-ended questions were included in the questionnaire to inquire about students' feedback regarding enhancing teaching and learning at JS Murarka Multiple Campus which are presented and discussed below.

QN Questions

25. What are some things your teachers could do to improve their teaching effectiveness?
 26. What are some aspects of your learning experiences at JS Murarka Multiple Campus that you find particularly effective or valuable?
 27. Do you have any additional comments or suggestions regarding teachers' adequacy at JS Murarka Multiple Campus?
-

In reference to the question number 25, the students highlighted the importance of teachers being punctual, well-prepared, and using effective teaching methods. They emphasized the need for technology integration, providing feedback, and maintaining discipline. Suggestions included regular training for teachers, updating teaching methods, and adopting student-centered approaches. Overall, the responses focus on the practical aspects of teaching that contribute to a positive learning experience. Similarly, in regards to question number 26, the students appreciate a healthy and disciplined environment, familiar teaching staff, use of technology, and facilities like libraries and science labs. Punctuality and regularity of teachers were valued. The QAA certification, good infrastructure, and qualified teachers contribute to a positive learning experience. There's an emphasis

on the overall campus environment, infrastructure, and the professionalism of the teaching staff. In relation to question number 27, the Students suggested improvements like research-based teaching, cleanliness, regularity, and friendliness of teachers. They proposed practical solutions such as providing free pads, using updated textbooks, and reducing fees. Some advocated for technological enhancements like CCTV cameras. The importance of feedback, checking homework regularly, and varied teaching methods were reiterated. Overall, the comments reflect a mix of practical and systemic suggestions for enhancing teacher adequacy and the learning environment of the campus.

Analysis of the observation

For observation, we chose unstructured observation to witness the scenario of teaching-learning activities in B.Ed. Program and found out the relevant information to this research.

During our unstructured observation of B.Ed. classes, a clear pattern emerged regarding teaching methods. While a small number of teachers incorporated projectors, the majority heavily relied on traditional lecture approaches. This led to varying levels of student engagement, with some actively participating and others opting to skip class and wander outside. Interestingly, those utilizing projectors demonstrated thorough preparation, elevating the learning experience. However, in larger classes, a common challenge emerged as students at the back struggled to communicate effectively with teachers, potentially hindering an optimal learning environment. Despite teachers maintaining clear communication and punctuality, the majority neglected to provide feedback on homework, indicating a gap in assessing student progress. This multifaceted observation underscores the necessity of diversifying teaching methods, addressing class size dynamics, and fostering more comprehensive student-teacher interactions. These changes are crucial to enhancing overall teacher adequacy from the students' perspective.

Findings and Interpretation

The majority of the 35 respondents perceived their teachers as well-prepared for classes as 42.85% believed their teachers were above average and an equal percentage found the average, indicating a positive overall sentiment regarding teachers' preparedness. Regarding their subject-matter depthness, 51.43% of students believed their teachers possessed a deep understanding to a great extent and 40% indicated a somewhat deep understanding, showcasing a high level of confidence in their teachers' subject matter expertise. Moreover, related the updating with the latest developments, 48.57% of students believed their teachers were somewhat up-to-date, while 37.43% to a great extent and only 20% expressed concerns about very little awareness with room for improvement. Significantly, it

was found that 77.4%, of students found that their teachers always addressed their questions and concerns effectively indicating a positive trend in teacher-student communication. Similarly, the majority of students, 57.14%, expressed positively challenged to think critically and creatively by their teachers indicating a generally positive environment for critical thinking, though a small group experienced less frequent challenges. Regarding the student engagement in the classes, 34.28% reported always being encouraged to ask questions and participate in class discussions, 11.42% state rarely, and 8.57% never that shows that the teacher needed to use the ways for student-engagement. Similarly, the majority of students expressed positive experiences with feedback.

The findings reveal that 68.57% of students perceived the teaching methods as average. Additionally, 42.85% believe their teachers use ICT and other resources to enhance learning to an average extent. A minority reported rare instances, yet the absence of respondents claiming never implied an overall positive trend in teacher-student communication within the research context. These results suggest a need for addressing concerns raised by a minority of students expressing dissatisfaction. Similarly, 34.14%, reported their teachers were frequently approachable and accessible outside of class hours. Interestingly, the majority, 82.85%, of students believed their teachers were open to receiving feedback on their teaching methods and course content. Moreover, 57.14% of students responded it was easy to approach teachers with questions or concerns. Regarding the help from their teachers, only 34.28%, of students received help from their teachers in understanding strengths and weaknesses, while 5.71% never receive such support. This suggests a generally positive environment with room for improvement in assisting. Related to the major factor, 54.28%, found the teaching quality at JS Murarka Multiple Campus slightly satisfying, while a smaller percentage expressed very satisfied or dissatisfied opinions.

Students' open-ended feedback emphasizes the importance of punctuality, effective teaching methods, technology integration, maintaining discipline, a healthy environment, and facilities. Suggestions for improvement include regular training for teachers, updating teaching methods, adopting student-centered approaches, and addressing practical concerns.

The observation of B.Ed. classes revealed several noteworthy findings. Firstly, a scarcity of teachers utilizing projectors contributed to instances of student disengagement and absenteeism. While ongoing sessions showed high levels of engagement, a prevalent reliance on the lecture method was evident, with only a few teachers incorporating projectors and lacking relevant teaching materials. In larger classes, communication challenges surfaced, impeding effective interaction between students and teachers. Despite clear communication and punctuality, a

significant absence of homework checks and feedback indicated a gap in assessing student progress. These findings emphasize the necessity for diversified teaching approaches and increased use of interactive strategies to enhance overall instructional effectiveness in B.Ed. classes.

Conclusion and Recommendation

This research delved into the perceptions of B.Ed. students at JS Murarka Multiple Campus regarding the adequacy of their teachers across various dimensions. The findings highlight the generally positive sentiment towards teachers' preparedness, subject matter expertise, and communication effectiveness. While students expressed satisfaction with certain aspects, such as teacher-student interaction and openness to feedback, there are areas that warrant attention, such as the need for diversified teaching methods and enhanced use of technology. These insights offer valuable implications for this campus, guiding the development of policies, faculty training programs, and strategies to improve overall instructional effectiveness. The observed challenges in projectors' underutilization, communication issues, and gaps in assessing student progress underscore the importance of continuous improvement in teaching approaches. As we reflected on these findings, it becomes evident that fostering a dynamic and engaging learning environment requires a holistic approach, incorporating not only traditional teaching methods but also embracing innovative strategies. This research sets the stage for future studies to explore and implement effective pedagogical approaches, ultimately contributing to the continuous enhancement of educational experiences. It is recommended that institutions prioritize ongoing teacher training, technology integration, and student-centered approaches to create a vibrant and effective learning ecosystem. The findings also indicate a need for fostering a more comfortable environment for student-teacher interactions. This research contributes valuable data that can inform educational policies, faculty development initiatives, and institutional strategies. The findings have the potential to enhance the overall educational experience at JS Murarka Multiple Campus in B.Ed. Program and serve as a reference for other educational institutions grappling with similar concerns.

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Teachers' Embracement of Communities of Practice in the Nepalese Context

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Abstract

This study explores the role of an ELT association in building communities of practice (CoPs), which is generally understood as a professional gathering for both personal and professional growth. Though this is a common trend across the fields at present era, it exclusively studies the case of NELTA (Nepal English Language Teachers' Association), its initiatives in building CoPs, and its impacts on teachers' professional lives. The main purpose of this study is to observe teachers' perceptions of CoPs, examine the role of NELTA in helping to form a learning community, and assess its effectiveness. The study has been initiated with a detailed study of existing literature on CoPs, guided by a few research questions and followed by data collection through questionnaires and interviews. The interpretation is based on an in-depth study of the ideas of three teacher-educators who are referred to as contributors in this study. At last, the conclusion duly acknowledges that the initiatives of ELT association in forming CoPs have been successful and meaningful in the Nepalese context.

Keywords: Challenges, Communities of Practice (CoPs), Impact, Role of ELT association, Teachers' perception

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Introduction

In this fast-growing world, classroom dynamics have drawn global attention. Conventional wisdom about the instructional phenomenon has little bearing on the present-day scenario. This is because the nature of the course contents, teaching philosophy, educators' advocacy for learners, teachers' own understanding of the classroom dynamics, and tacit knowledge essential for the learners' lives have leapfrogged to a larger extent. Hence, a teacher is expected to be proactive. As a main change agent of learners, a teacher is desired to be updated, knowledgeable and resourceful. Theoretically, it sounds okay; however, on the real ground, a large mass of teachers is target of the society in the sense that teachers are often thought to be unsuccessful whenever students miss the expected competencies to be achieved. The general assumption is that it is none other than the teachers who are supposed to overcome all other inadequacies related to students' academic performance. But the question arises whether this is possible

without teachers' professional development (TPD). Out of various strategies of teachers' professional development, building Communities of Practice (CoPs) is often seen to be a very effective strategies to identify, create, store, share, and use knowledge (Serrat, 2010).

When sharing and interaction were realized as very effective agents for fostering learning, the concept of communities of practice (CoPs) got prominence (Wenger, 1998). A community of practice (CoP) is a group of people who share a common concern, a set of problems, or an interest in a topic and who come together to fulfil both individual and group goals (Wenger, McDermott, & Snyder, 2002). It is professionals who create CoPs to share their best practices with each other or among the members who have similar interests in enhancing their professional development. The professionals in CoPs create new knowledge to advance the domain of professional practice. Lave and Wenger (1991) centered on the interactions between novices and experts, and the process by which newcomers create a professional identity. The interaction may occur face-to-face or virtually.

Though it is a sound idea to create CoPs for professional development, it's difficult to keep the community intact. Its longevity depends on the extent the common goal of its members is attained. Above all, the will to learn by sharing stands atop. Trust, respect and regard for the seniors and experts play a vital role in giving life to the CoPs. The question arises of how to build CoPs. ELT associations create an obligation to its members to build CoPs for both personal enhancement along with the promotion of quality education (Nelis, 2001). They help teachers be more innovative in introducing new trends in ELT. Teachers are sensitized to new challenges that they have to face at every step of their teaching career. In this regard, Loyo (2001) has a similar opinion and asserts the importance of having an ELT association because it helps the teachers develop the best possible working conditions and collective interest of teachers.

Here, in this article, I wish to talk about the teachers' perception of Communities of Practice (CoPs), the role of ELT associations in building CoPs, and the extent to which the members can benefit from it. The study has tried to serve three main purposes: To study how ELT professionals perceive the concept of CoPs in the Nepalese context; to investigate how the ELT association support its members to build CoPs; and to assess how these CoPs contribute to the professional development of its members.

And I wish to answer few questions, like, why is it important for prospective teachers to understand and internalize the concept of Communities of Practice (CoPs)? Can/ does an ELT association contribute to building CoPs? Who and what can support teachers in building CoPs? And What impact do CoPs have on teachers?

Theoretical Background

For the theoretical base of this work, Lave and Wenger's work on CoPs has been exploited to the fullest, followed by Li's, Gnanwali's and a few others.

Communities of Practice (CoPs): Tools, Needs, and Means of TPD

In 1991 A.D., Wenger and his colleague coined the term Communities of Practice (CoP) to acknowledge the essentiality of professional networks for sharing and exchanging information and for interacting with peers in their workplace. To them, Communities of Practice (CoPs) concern the whole person acting in the world (Lave & Wenger, 1991, p.49). Further, they clarify it as a group of people who share a concern or passion for something they do and learn how to do it better as they interact regularly. It is all about an individual's and group's goals in terms of their professional development. It is a bottom-up approach to growing personally and professionally where the concerned parties share their common concerns, their common issues and common agenda that they think must be addressed. It is often and always of a sharing nature where best practices are expected to be shared among the communities of practitioners. Hence, participating physically or virtually in discussion and sharing fosters learning. Li et al. (2009) have nearly the same opinion about the concept of CoPs, yet they differ in the use of terminology in the sense that they describe it as learning among practitioners in a given social environment. By social environment, they mean learning through collaboration and cooperation in a group. Their dire focus is on how effective strategy CoPs are.

Range and coverage of CoPs have been on the go since the inception of this term in the early 90s. It was introduced to highlight the importance of learning by sharing in the same workplace among professionals. In 30 years' duration, the research on CoPs has shifted from an interest in understanding the interactions between novices and experts in a particular field to investigations of the personal growth of individuals within a group (Li et al., 2009). It is more concerned about growing personally and professionally rather than learning certain skills from the expert. Now it believes not all knowledge exists in explicit forms such as books. Knowledge is also tacit, residing in individuals in any CoP, and is gained through real-world experiences. Ng and Tan (2009) also contend that participation in communities of practice serves to bridge the gap between the explicit knowledge that one gains through formal learning and the tacit knowledge which is found in CoPs. The conversations which take place within CoPs serve to disseminate tacit knowledge, and the extent to which such transfer of knowledge is successful depends on the creation of a climate for collaboration. Wenger (1999) in this regard mentions: CoP as an entity bounded by three interrelated dimensions: mutual engagement, joint enterprise, and a shared repertoire, (p.4). Further, he elaborates the term 'Mutual engagement' as something represents the interaction between individuals that leads to the creation of shared meaning on issues or a problem. 'Joint enterprise' is the process in which people are engaged and working together toward a common goal. Finally, 'shared repertoire' refers to the common resources and jargon that members use to negotiate meaning and facilitate learning within the group. The three dimensions attempt to outline the process of individuals'

interactions within CoP groups, but it is not clear what distinguishes them from other group structures.

Role of ELT Teachers' Association in Building a Learning Community

Community generally implies a certain mass with a common interest and goal. Reil and Polin (2004) define the identity of the members of a learning community by their role and responsibility in their group. Learning community develops a certain unique texture having its own culture and ways of communication. In the long run, it gains a powerful status to have its say in a profession. And for this, the ELT association works as a booster.

Before I count the work, an ELT Teachers' Association does, let me present a scenario of the COVID-19 pandemic. Yadav (2021) writes:

the lockdown caused by the COVID emergence in 2020, plus its sequel in 2021 gave us restlessness at home, the agony of uncertainty, and for some of us the pain of losing a job and, worse, of losing one loved ones. The second wave of the COVID-19 hit hard. Lots of stories were not shared...(p.1).'

The scenario speaks for everything. This is the common case for all teachers around the globe. In such a dreadful situation, the ELT association like NELTA (Nepal English Language Teachers' Association) must be acknowledged. It did a lot. When teachers were locked inside their homes, it developed a kind of strategy to bring the teachers back to an online forum where they got opportunities to meet and share their feelings, emotions, and others. It started organizing various online training, conferences, symposiums and workshops for its members. The prospective members were encouraged to be technocrats so that they would survive professionally. The members of the association were benefited a lot. Most of them came to connectivity, learnt how to work online, got an insight into various web tools, and lots of others. It created an obligation to build different learning communities. And those who were the members were the pioneers and were the first to run online classes.

To create CoPs and to develop a sense of belonging to that community, ELT associations have been playing an invaluable role in the Asian context. Teachers have different working contexts with different professional issues. They themselves are diversified in terms of understanding the nature of the profession, capacity to deal with professional issues, and willingness to grow personally and professionally. These are naturally common scenarios for teachers around the globe. In this regard, the role of teachers' professional association appears inevitable. For example, the Nepal English Language Teachers' Association (NELTA), Bangladesh English Language Teachers' Association (BELTA), Malaysian English Language Teachers' Association (MELTA), All India Network of English Teachers (AINET), Society of Pakistan English Language Teachers (SPELT), and many more like such have a significant contribution to the formation of CoPs for professional development of

its members. These associations bring the teachers to a common platform. In other words, they create opportunities for teachers to come together as mentioned by Gnawali (2016) stated in Odhiambo and Ngayni (2007). He highlights the importance of the ELT Association for enlarging connectivity among them. I believe connecting the fellow members is the first step in building CoPs.

Though the area and theme of this study are common to many researchers, this study exclusively focuses on the significance of building CoPs for the professional growth of teachers. It also sheds light on the role of the ELT association, especially NELTA in the Nepalese context in creating CoPs and its impacts on members.

Method

The study proceeded with a desktop approach whereby I gained deep insights into the impact of CoPs on the professional development of teachers. For this, I came across Gnawali's work, and then read Wegner's and others. I reflected on my own personal experiences of being a part of CoPs and its impacts on my professional life. As a mini-research, I reached out with a set of questionnaires to some prospective teachers who are active members of their professional associations and have been collaboratively working as professional community members. The targeted teachers were from my own province which comprises eight districts, from which two from each district were purposively selected maintaining gender balance. And three of them were asked for a virtual discussion on some of the issues which were not clear in their written response. The main portion of the discussion is based on the outcome of those three teachers' views and insights. I had rounds of discussions with some colleagues on the issues above. The written responses to the questionnaire were used only as a reference for the interpretation.

Interpretation and Discussion

I took the interview of three teacher educators/teacher-leaders whom I considered as contributors, referred to as C1, C2, and C3. The discussion was centered around the following issues: the concept of CoPs and its importance in TPD, the contribution of ELT association to building CoPs, the impact of CoPs in the professional growth of its members, constraints and challenges in building CoPs, and the way to nurture it.

Table 1*Contributors*

S.N.	Contributor	Designation	Roles/ Responsibilities
1	The contributor first hereafter referred to as C1	High school teacher/ trainer/ Branch head of one of the districts of NELTA of Madhesh province	--Cooperating, collaborating and conducting TPD-related events --plan/ organize and execute??
2	The contributor second hereafter referred to as C2	High school teacher/ trainer/ Branch head of one of the districts of NELTA of Madhesh province	--Cooperating, collaborating and conducting TPD-related events --plan/ organize and execute??
3	The contributor third hereafter referred to as C3	Associate professor/ HoD of a Department	Lead the department/ plan and organize research-related activities

Teachers' Perception of Communities of Practice (CoPs)

Communities of Practice (CoPs), a recent trend of TPD (Teachers' Professional Development) has been a common trend across different professional fields. When asked about their perception of the term 'Communities of Practice' they have similar ideas. Both C1 and C2 defined it as a professional gathering where the members interact over issues and challenges they want to overcome. C1 further elaborated that CoPs itself is a platform where they get opportunities to discuss professional issues. In the same way, C2 described it to be a gathering to learn collectively. C3 NELTA at the local, provincial and central.

When we study the literature on the concept of CoPs, we find the commonality. Lave and Wegner (1991) and Li et al (2009) seem to have focused on interactions between novices and experts in a particular field for the investigations of personal growth. However, the study has an intended question of whether each ELT practitioner has embraced this term. While in an informal talk about the concept with a few teachers, I found them unaware of it. Those who are the members of ELT association (NELTA in the case of English language teachers in Nepal) are somehow better than those who are not. This is the public discourse in the educational arena.

Importance of Building CoPs

The study found that building CoPs is very useful for professionals because it helps them to grow personally and professionally. It creates a forum for collective learning. Sharing common interests, solving profession-related problems,

discussing professional issues in groups, taking responsibility for common growth, introducing new practices as to the urgency, and developing a sense of collegiality among its members are some of the core concerns of CoPs. There has been a lot many researches on the importance of CoPs which acknowledges their needs for teachers' growth. Hermita, et al (2021) who studied the importance of CoPs in the Indonesian context write about their importance for continuously improving teachers' competence. In the same way, Mercieca (2017) claims its importance as the way to provide a regular, localized and supportive environment.

Role of ELT Association in Building CoPs

Inherently, human beings possess an interest in gathering to form a group or society in any form. Hence, professional gatherings appear to be natural, but in practical life, it does not happen that way. Here, a sharing culture is practised where the members are a part of any professional organization. A professional without any formal organization can hardly be seen sharing and exchanging ideas, knowledge, skills and expertise. In this regard, when an issue of the role of the association in the building was posed, the contributors had similar opinions. C1, one of the contributors to this study, duly acknowledged its role in doing so. NELTA (an ELT association) in Nepal creates a forum for English language practitioners to gather professionally. It energizes them by providing different opportunities, like, organizing training by providing experts from home and abroad. This training is generally relevant to their daily professional life. NELTA creates an obligation to assume some roles to lead the community. Different responsibilities are asked to be borne by its members where they experience and feel like growing professionally. It always backs up the support to keep involved in teachers' professional development-related activities, like, training, workshops, seminars, national and international conferences, and writing for publication.

C2, the next contributor, had a similar claim regarding the role of ELT association in the formation of CoPs. He said that NELTA always focuses on professional development and provides a venue for exposure at the deeper level which enhances their proficiency. It helps in developing positive perceptions culminating in pro-activeness in the members. Helping in developing collegiality is another important contribution of NELTA.

Mechanism of NELTA to Help Build CoPs

Forming a learning community itself is a big feat. And helping to form the community paves the way for other professionals to join it. In the Nepalese context, NELTA has a strong mechanism to build CoPs. While talking on this issue with all three teachers' educators, who are the main contributors to this study, and while analyzing the response from the questionnaire, I got a clear idea of how NELTA's mechanism works for building CoPs. First, it goes with the 'teacher-educator hunt' scheme through which a teacher-educator is identified. He/ she is asked to lead a

team forming a group. Then, any relevant professional event is organized and an expert is sent to deal conduct the event. Along with the delivery of the content, the expert, and the participants were brainwashed regarding joining the association and forming a learning community. Opportunities are created for the members for paper presentations, article writing, proposal writing, designing training sessions and their delivery, and lots more like such. Sometimes, members of such communities are given opportunities to get exposure in their fields through different scholarship schemes provided by different international agencies.

NELTA asks each branch at the district and provincial level to devise short and long-term strategic planning for the smooth running of the communities and keeping ahead of all professional events. Different committees and sub-committees, like, research editorial committee, training coordinating committee, executive committee and the like as to the requirement. Planning, implementation and evaluation are done through top-down and/or bottom-up approaches. With the spirit of developing teacher leadership, it has achieved a bigger success.

Challenges of Building CoPs

While discussing the issue above with the contributors, they focused on five different sorts of challenges: (a) psychology-related challenges (attitude, wrong perception about the ELT association, lack of interest, etc.), (b) Real-ground challenges (membership sizes, geography, teachers geographically dispersed, lack of technological knowledge, (c) expensiveness, (d) over-consumption of time by an institution and (e) ignorance.

All the contributors emphasized that some teachers are not well aware of its importance. Some are victims of culture- the culture of not sharing nor asking to share. The contributor 1highlighted that in some cases, teachers were found demotivated because of the unavailability of monetary benefits in learning communities. Managing time is also challenging for some teacher professionals because some of them are busy from morning to night in their workplace. Teachers are geographically dispersed. They cannot work together because they live away from each other. They need to take the help of technology, that is, they need to have a laptop, internet connection and the like. These all cost money which is also problematic. Furthermore, permanent job status in the Nepalese context is also a hurdle for some of the teachers. Once they enjoy it, they think they need not require anything else then. Contributing time, energy and money is unquestionably a bigger issue in building a community of practice.

Impacts of CoPs on its Members

It has been observed that communities of practice have had a big impact on the personal and professional growth of teachers. ELT association, like NELTA which keeps helping teachers form learning communities, have produced many more polished professionals in different zones of the country. Lots of teachers have been

good writers since they joined the community. Many more of them have been good trainers, good educators and good teachers after they joined it. Some of them have already been noted by academicians across the country. Their impact is seen in their classrooms. Developing teacher-leadership is not less achievement of CoPs. There is a lot of practical evidence that those who were very poor in using technology for classroom purposes have been good technocrats.

Conclusion

A large number of English language teachers, whether novice or experienced, and teacher-educators across the nation have internalized the spirit of Communities of Practice (CoPs). They have understood its meaning in their professional life. Building a learning community sharing, caring and exchanging knowledge, skills and expertise along with nurturing the community seem to be their priority. This is so because CoPs have had big impacts on their personal and professional growth.

NELTA (Nepal English Language Teachers' Association), an ELT association in Nepal has contributed a lot in different ways. It encourages the teachers to gather together for collective learning, develops a sense of professionalism in them, and helps them to grow professionally. It provides opportunities to get exposure through training, seminars, workshops, conferences, and write-ups. Developing teacher leadership is its main concern. Because of NELTA's initiation, a great many teachers have been identified as noted professional members across the country. From trainers to presenters, from writers to reviewers, and from teacher-educators to teacher-leaders, NELTA's contribution cannot be underestimated. In short, its initiation in building communities of practice is worth highlighting.

The study recommends the prospective teachers to form a learning community, technically called CoPs (Communities of Practice) so that they can grow personally and professionally. It will create a platform for them to share their information and knowledge and can update culminating in their professional development. They can bring in positive changes in their practice of dealing with their professional affairs.

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Exploring the Phytochemical Constituents and Bioactivities of *Ocimum sanctum* (Tulsi)

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Abstract

Ocimum sanctum is a medicinal plant that has been used in traditional Chinese medicine for treating oxidative stress-related conditions and microbial infections. This study aims to investigate the variation in secondary metabolite profiles of *Ocimum sanctum* plants grown under field conditions at Trai region of elevated land. Phytochemical screening was performed to detect alkaloids, amino acids, carbohydrates, phenols, flavonoids, terpenoids, coumarins, and glycosides. The ethanol extract (TE) was tested for antioxidant activity using the DPPH radical scavenging assay. Antimicrobial activity was evaluated against *Staphylococcus aureus* (SA), *Klebsiella pneumoniae* (KP), *Salmonella sonai* (SS), and *Escherichia coli* using the agar well diffusion method. Phytochemical analysis revealed several bioactive compounds. The TE extract showed concentration-dependent antioxidant activity but was less potent than Quercetin. TE exhibited moderate antimicrobial activity against all tested bacterial strains, suggesting potential use in managing certain infections. Overall, the findings from this study support the traditional use of *Ocimum sanctum* in herbal medicine, particularly in treating infections.

Keywords: Antimicrobial, DPPH Assay, *Ocimum sanctum*, Phytochemicals, Secondary Metabolite

Introduction

Nepal is celebrated for its unparalleled biodiversity, offering a rich tapestry of medicinal plants that has been integral to traditional health practices for centuries. Among these, *Ocimum sanctum*, commonly known as Holy Basil, stands out due to its profound cultural and medicinal significance (Pooja & Kumar, 2023). This revered plant belongs to the Lamiaceae family and is a cornerstone of Hindu traditions, esteemed for its diverse therapeutic properties and its role in Ayurvedic and Unani medicine systems (Murkar et al., 2023).

Ocimum sanctum holds a revered place in Hindu culture, celebrated for its profound spiritual and health benefits. Known as the "elixir of life" in Ayurvedic

medicine, it is praised for enhancing longevity, balancing bodily functions, and promoting well-being (Nagbanshi & Mishra, 2024). Its adaptogenic properties help the body adapt to stress, boosting resilience against environmental and psychological stressors. Botanically, it is an aromatic, much-branched sub-shrub, typically 30-60 cm tall, and is widely cultivated across tropical regions, including Nepal, particularly around the Himalayan foothills and plains, due to its adaptability (Singh & Chaudhuri, 2018).

The therapeutic value of *Ocimum sanctum* is attributed to its rich composition of secondary metabolites, including polyphenolic compounds, flavonoids, alkaloids, saponins, and tannins. These metabolites are known for their antioxidant properties, which play a crucial role in neutralizing free radicals and mitigating oxidative stress (Devi et al., 2024). The concentration and efficacy of these compounds can vary depending on environmental stressors such as water availability, temperature fluctuations, and soil conditions. This variation in metabolite profiles influences *Ocimum sanctum*'s medicinal effectiveness and presents challenges in standardizing its therapeutic use (Das et al., 2020).

It is rich in various chemical constituents that contribute to its medicinal properties. Key compounds include eugenol, known for its antiseptic and anti-inflammatory effects; ursolic acid, with antioxidant, anti-inflammatory, and anticancer activities; and rosmarinic acid, an antioxidant with antiviral properties (Dobhal et al., 2024). Additionally, it contains apigenin and luteolin, flavonoids with anti-inflammatory and antioxidant benefits; caryophyllene and camphor, which provide anti-inflammatory and antimicrobial effects; and linalool, known for its calming properties (Pooja & Kumar, 2023). Other important constituents are beta-sitosterol, which has cholesterol-lowering effects, and oleanolic acid, recognized for its hepatoprotective and anticancer properties (Hasan et al., 2023). These diverse compounds make *Ocimum sanctum* a potent adaptogen and therapeutic agent (Dobhal et al., 2024).

This study investigates the variation in secondary metabolite profiles of *Ocimum sanctum* grown in elevated regions of the Terai, focusing on analysing the phytochemical composition and antioxidant capacity of water and ethanol extracts. By examining how environmental factors at higher elevations influence the production of bioactive compounds such as flavonoids, phenols, terpenoids, and alkaloids, the research aims to uncover potential differences in metabolite concentration and activity. Antioxidant capacity will be assessed using DPPH and FRAP assays, providing a comparative evaluation of the efficacy of both extracts. The findings will offer valuable insights into the impact of altitude on metabolite synthesis, guiding optimal cultivation practices for enhancing therapeutic properties and supporting the development of natural antioxidants and antimicrobials. By using ethanol solvent condition of extract, the research seeks to identify potential constituents and biochemical activity of *Ocimum sanctum*-based

herbal preparations (R & P, 2018). The findings are expected to contribute to more consistent and clinically effective *Ocimum sanctum*-based treatments, thereby enhancing their therapeutic value and reliability (Jamshidi & Cohen, 2017).

By integrating traditional knowledge with modern scientific techniques, the research aims to bridge the gap between ethnobotanical knowledge and contemporary drug discovery. The goal is to enhance our understanding of *Ocimum sanctum*'s potential, support the development of new herbal medicines, and contribute to the sustainable cultivation and utilization of this valuable medicinal plant. This approach not only honours the traditional uses of *Ocimum sanctum* but also seeks to validate and expand its role in modern therapeutic practices, ensuring that its benefits can be consistently harnessed and applied in contemporary medicine.

Method and Methodology

Sample Collection

The plant material of *Ocimum sanctum* was collected in January 2022 from the local area of Lahan, Siraha at some elevated land, Nepal. The selected plant parts were carefully removed and washed under running tap water to eliminate any dirt.

Sample Preparation

After collection, the plant material was dried in the shade for one week. Once dried, the plant parts were ground into a fine powder using an electric grinder. For extraction, 150 g of the powdered sample was soaked in 1000 to 1500 ml of methanol and distilled water in a conical flask separately, shaken occasionally to ensure proper mixing, and macerated for 72 hours at room temperature. This maceration process helps to soften and break the plant's cell walls, facilitating the release of soluble phytoconstituents. After filtration samples are named as *Ocimum sanctum* in ethanol (TW) for water extract and TE for ethanol extract. To get solid sample solvent was evaporated stored in 2ml vial (Abubakar & Haque, 2020).

The sample preparation and the phytochemical analysis were conducted at the Chemistry Laboratory, J. S. M. M. Campus, Lahan. A Phoenix electronic analytical balance was used for accurately weighing the powdered sample, followed by shaking in a shaker with different solvents for solution preparation. Various test-tube tests were then performed using different chemicals to carry out the phytochemical analysis. Additionally, the antimicrobial and antioxidant tests were performed at the Central Department of Chemistry, Tribhuvan University.

Phytochemical Screening Tests

Phytochemical screening of the extract was conducted using standard procedures and chemical reagents to identify various phytoconstituents. Alkaloids were detected with Meyer's test, showing a white creamy precipitate. Amino acids

were tested with the Xanthoprotein test, where an orange colour appeared upon adding concentrated nitric acid and sodium hydroxide, indicating aromatic amino acids. Carbohydrates were identified using Molish's test, which produced a reddish ring. Phenols were tested with FeCl_3 , resulting in a dark green or reddish-brown colour. Flavonoids were screened using the alkaline test, where yellow fluorescence signalled their presence. Tannins were detected with FeCl_3 , indicated by a green colour. Saponins were identified through the foam test, showing stable foam formation. Terpenoids were tested with Salkowski's test, which produced a yellow or reddish-brown colour. Quinine was detected with the hydrochloric test, showing a yellow colour, while coumarins were identified using the sodium hydroxide test, resulting in a yellow colour. Glycosides were screened with the Kellar–Kilianis test, where reddish-brown or blue-green colour indicated their presence. Finally, anthocyanins were tested with sulfuric acid, showing a yellowish-orange colour (Palaramb et al., 2023; Shridhar & Kumar, 2023).

Determination of Antioxidant Activity

The antioxidant activity was measured using a modified colorimetric method in a 96-well plate. A 0.1 mM DPPH solution was prepared by dissolving 3.9 mg of DPPH in 100 mL methanol, protected from light. Quercetin stock solution (1.0 mg/mL) was diluted to final concentrations of 170, 190, 60, 20, and 10 $\mu\text{g/mL}$, and also the plant extracts were prepared in 50% DMSO with same concentrations as Quercetin. In the assay, 100 μL of each solution or 50% DMSO (negative control) was added to the wells, followed by 100 μL of DPPH solution. After 30 minutes of incubation in the dark, absorbance was measured at 517 nm, and the DPPH radical scavenging activity was calculated as the percentage inhibition (Chaves et al., 2020).

$$\text{Inhibition (\%)} = \frac{A_{\text{control}} - A_{\text{sample}}}{A_{\text{control}}} \times 100$$

Where A_{control} is absorbance of DPPH solution without the sample and A_{sample} is absorbance of the DPPH with the sample.

Antimicrobial Assay

The antimicrobial activity of TW and TE extracts against *Staphylococcus aureus* (SA), *Klebsiella pneumoniae* (KP), *Salmonella sonai* (SS), and *Escherichia coli* (E. coli) was evaluated using the agar well diffusion method. Bacterial cultures were spread on nutrient agar plates, and wells were filled with 50 mg/mL concentrations of each extract dissolved in 50% DMSO solution. After incubation at 37°C for 24 hours, the zones of inhibition were measured in millimetre (mm) to assess antimicrobial effectiveness (Bubonja-Šonje et al., 2020).

Data analysis

Data analysis was done by using MS excel.

Results

Phytochemical analysis

The phytochemical screening of *Ocimum sanctum* ethanol extract (TE) revealed the presence of various bioactive compounds, confirmed through distinct qualitative tests.

Table 1 Phytochemical analysis

Phytochemicals	Methanolic extract
Alkaloids	+
Amino acids	+
Carbohydrate	+
Phenol	+
Flavonoids	+
Tannin	-
Saponin	-
Terpenoid	+
Quinones	-
Coumarine	+
Glycoside	+
Anthocyanin	-

Key: + = present and - = absent

Alkaloids were identified via Mayer's test, indicated by the formation of a white creamy precipitate. Aromatic amino acids were detected using the Xanthoprotein test, which produced an orange color. Carbohydrates were confirmed through Molisch's test, showing a characteristic reddish ring. Phenols were detected using the FeCl_3 test, which resulted in a dark green or reddish-brown color, while flavonoids were confirmed by the alkaline test, producing yellow fluorescence. Tannins were also detected with the FeCl_3 test, indicated by a green color. Saponins were identified using the foam test, where stable foam formation confirmed their presence. Terpenoids were detected by Salkowski's test, indicated by a yellow or reddish-brown color. Quinine was confirmed through the hydrochloric acid test, where a yellow color indicated its presence. Coumarins were identified using the sodium hydroxide test, producing a yellow color, and glycosides were detected using the Keller-Kiliani test, indicated by a reddish-brown or blue-green color. Finally, anthocyanins were confirmed by sulfuric acid treatment, resulting in a yellowish-orange color. These findings highlight the diverse phytochemical profile of *Ocimum sanctum*, with each compound verified through specific extraction and detection methods.

Antioxidant Activity

The antioxidant potential of *Ocimum sanctum* extract prepared in ethanol (TE) was evaluated using the DPPH radical scavenging assay. In this assay, different concentrations of the ethanol extract were tested to determine its ability to

neutralize free radicals, measured by the percentage inhibition of the DPPH radical. The assay involved adding a methanol-based DPPH solution to varying concentrations of the TE extract. After 30 minutes of incubation in the dark, the absorbance was measured at 517 nm and % scavenging as shown in Table 2 and graphically in Figure 1 and 2, and the percentage inhibition and IC₅₀ of radical scavenging activity was calculated which was found 195.243 µg/mL for Quercetin and 341.315 µg/mL for *Ocimum sanctum*.

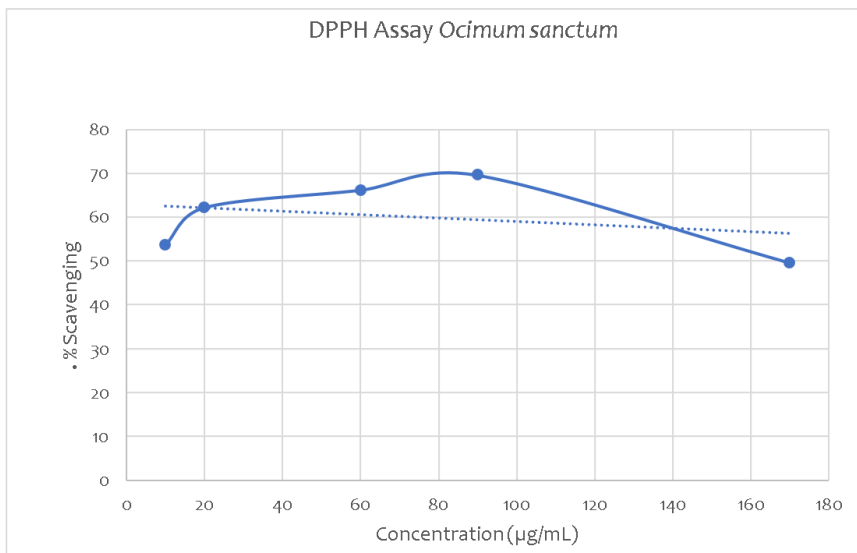


Figure 1 Graphical Representation of % Scavenging of different concentration of *Ocimum sanctum*

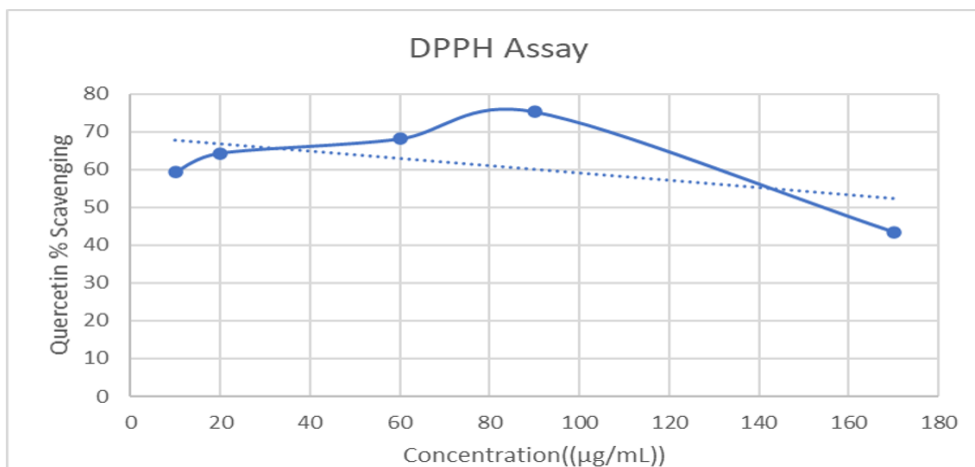


Figure 2. Graphical representation % Scavenging of Quercetin

The results showed that the TE extract exhibited concentration-dependent antioxidant activity, with higher concentrations generally showing greater inhibition percentages. This indicates that the ethanol extract has a significant capacity to neutralize free radicals, contributing to its potential as a natural antioxidant.

Table 2. %Scavenging of Ethanol extract and Quercitrin

Concentration ($\mu\text{g/mL}$)	Plant Extract % Scavenging	Quercetin % Scavenging
(Control)	0.00	0.00
10	53.65	59.32
20	62.23	64.34
60	66.23	68.12
90	69.63	75.34
170	49.57	43.45

Antimicrobial Assay

After incubation at 37°C for 24 hours, the zones of inhibition around the wells containing the TE extract were measured which are shown in **Table 3**.

Table 3. Zone of inhibition of *Ocimum sanctum* extract

Bacteria	ZOI of TE (mm)	ZOI of Neomycin(mm)
<i>Staphylococcus aureus</i>	14	25
<i>Klebsiella pneumoniae</i>	12	23
<i>Salmonella sona</i>	12	24
<i>Escherichia coli</i>	10	19

Discussion

The phytochemical screening of *Ocimum sanctum* extract prepared in ethanol (TE) revealed a diverse array of bioactive compounds, suggesting the plant's significant therapeutic potential. The presence of alkaloids, amino acids, carbohydrates, phenols, flavonoids, terpenoids, coumarins, and glycosides in the TE extract indicates a complex chemical profile that likely contributes to its biological activities. The detection of these compounds aligns with previous studies that have highlighted the medicinal properties of *Ocimum sanctum*, commonly known as Tulsi in traditional medicine systems. Interestingly, tannins, saponins, quinones, and anthocyanins were absent in the extract, which might be attributed to the solvent used or the specific extraction method (Pooja & Kumar, 2023). The absence of these compounds does not necessarily diminish the extract's efficacy but rather highlights the selectivity of the extraction process in isolating certain phytochemicals over others.

The antioxidant activity of the TE extract, as evaluated through the DPPH radical scavenging assay, demonstrated a concentration-dependent inhibition of

free radicals. The observed IC₅₀ value of 341.315 µg/mL for the TE extract suggests that it possesses a moderate ability to neutralize free radicals, though less potent than Quercetin, a known antioxidant, which exhibited an IC₅₀ value of 195.243 µg/mL. The lower IC₅₀ value of Quercetin compared to the TE extract indicates its higher effectiveness in scavenging DPPH radicals (<http://dx.doi.org/10.5897/JMPR2019.6880>). However, the substantial antioxidant activity of the TE extract underscores its potential as a natural source of antioxidants, which could be further explored for therapeutic applications. The concentration-dependent increase in scavenging activity observed in the TE extract suggests the presence of bioactive compounds that interact synergistically to enhance the overall antioxidant effect. This is consistent with the presence of phenolic compounds such as flavonoids and phenols, which are known for their strong antioxidant properties.

The antimicrobial assay results highlight the ethanol extract's potential as an antimicrobial agent against various bacterial strains. The TE extract demonstrated inhibitory effects on all four tested bacteria, with zones of inhibition (ZOI) ranging from 10 to 14 mm. Although the zones of inhibition were smaller than those produced by Neomycin, a standard antibiotic, the results are significant in demonstrating the plant's natural antimicrobial properties. The highest ZOI of 14 mm was observed against *Staphylococcus aureus*, a common gram-positive pathogen, indicating the extract's effectiveness against this bacterium (Kumar et al., 2018). This suggests that the TE extract could be particularly useful in treating infections caused by gram-positive bacteria. The lower ZOI observed against *Escherichia coli* (10 mm) indicates a relatively weaker activity against gram-negative bacteria, which is often the case with plant-based antimicrobials due to the more complex cell wall structure of these organisms (Kumar et al., 2018).

Overall, the findings from this study support the traditional use of *Ocimum sanctum* from the elevated regions of the Terai in herbal medicine, particularly for treating oxidative stress-related conditions and microbial infections. The presence of multiple bioactive compounds in the ethanol extract (TE), combined with its significant antioxidant and antimicrobial activities, suggests that *Ocimum sanctum* from this specific locality could be a valuable source of natural therapeutics. Further research is warranted to isolate specific compounds responsible for these activities and to explore their mechanisms of action. Additionally, investigating the extract's efficacy in vivo models could provide deeper insights into its potential clinical applications and validate its traditional use in the Terai region.

Conclusion

This study highlights the phytochemical richness and bioactivity of *Ocimum sanctum* ethanol extract (TE), confirming its potential as a natural source of therapeutic agents. The phytochemical screening revealed the presence of several bioactive compounds, including alkaloids, amino acids, carbohydrates, phenols, flavonoids, terpenoids, coumarins, and glycosides, which are likely contributors to

its observed biological activities. The TE extract exhibited significant antioxidant activity, as demonstrated by its ability to scavenge DPPH radicals in a concentration-dependent manner. Although Quercetin showed greater potency in comparison, the antioxidant capacity of the TE extract underscores its potential for use in managing oxidative stress-related conditions.

Additionally, the TE extract demonstrated antimicrobial activity against multiple bacterial strains, particularly *Staphylococcus aureus*, suggesting its utility in combating certain infections. While the observed antimicrobial effects were less potent than those of standard antibiotics, the findings support the traditional use of *Ocimum sanctum* in herbal medicine for treating infections.

Ocimum sanctum ethanol extract possesses both antioxidant and antimicrobial properties, making it a promising candidate for further research and development as a natural therapeutic agent. Future studies should focus on isolating and characterizing the specific compounds responsible for these activities, as well as evaluating their efficacy in clinical settings.

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Impact of Sound Pollution at Lahan City, Siraha, Nepal

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Abstract

*The researcher in this paper tried to find the causes, impacts of sound pollution and a modeling of Noise index in Lahan city. Quantitative research approach by using scientific techniques and tools was used to measure intensity level of sound on public and economic sites. The study exposed a modeling to Noise index as excess Equivalent Sound Pressure Leve ($L_{eq} = 86.88 \text{ dB}$ in Day shift), Noise Pollution Index ($LNP=119.17 \text{ dB}$ in Day shift), Noise climate ($NC=31.4 \text{ dB}$ in Day shift) and Traffic Noise Index ($TNI=157.3 \text{ dB}$ in Day shift) which have explored that the public health falls under the danger zone beyond normal standard conservation of hearing (**60dB**). It is recommended that authorities have main responsibility to extend market policy and safety precaution to rescue the sensitive sites of Lahan city from sound pollution.*

Keywords: Adverse effects, Noise indices, Pollutants, Sound level meter

Introduction

Noise, from the Latin "nausea," signifies unwanted or unpleasant sound. Major cities face rising sound pollution due to places urbanized. Key sources include increased vehicles, construction, and urbanization. In Europe at night, WHO's has recommended 30-35 dB for undisturbed sleep (Chauhan et al., 2010). As development progresses and environmental challenges like air and water pollution, biodiversity loss, and climate change intensify, noise pollution is becoming a growing concern in urban areas. However, in many developing nations, this issue remains largely unrecognized and insufficiently addressed (Bhosale et al., 2010). In Eastern Nepal, environmental noise levels frequently exceed standards. Dharan's measurements range from 58 to 82 dB(A) while Inaruwa's range from 53 to 77 dB(A) seasonally (Shrestha et al., 2017). Traffic significantly contributes to urban noise pollution, impacting residents' health. The effects of noise vary with frequency and include potential hazards from high-intensity sounds. Urban expansion, such as infrastructure and traffic growth, exacerbates noise, while loud horns, speakers, and

DJ sounds during events further contribute to health risks (Saraswat, 2018). Approximately 250 million people worldwide are affected by occupational noise exposure, with 16%, varying from 7% to 21% regionally. (Paudel et al., 2019). City noise pollution sources include police and ambulance sirens, car horns, heavy traffic, sound systems, places of worship, public meetings, motorbikes, loudspeakers, repair workshops, construction, factories, loud voices, and planes (Hoque et al., 2020). Evening measurements showed S18 recorded highest noise, averaging 68.43 dB (Ali et al., 2021). Traffic noise is elevated in cities due to high population density, frequent movement, and increasing vehicles (Sahu et al., 2021). Traffic noise often exceeds 70 dBA on collector, arterial, and highway roads (Ali, 2022).

In Kathmandu, noise pollution levels consistently exceed 70 dB (A) at all 20 studied junctions, with there is no substantial variation between morning and evening Persistent high sound pollution could harm public health (Singh et al., 2022). In Kathmandu, noise levels surpass national and WHO limits, with peak readings at Amrit Campus and Banasthali. Automobiles and loudspeakers are main noise sources. Public education is crucial for control (Chand et al., 2022). Many people are unaware of noise pollution, despite its significant impact. This lack of awareness contributes to rising noise levels. Increasing public awareness is crucial to addressing the issue (Uddin, 2018). Field measurements show that traffic noise averages over 68 dB in the mornings and afternoons, exceeding WHO guidelines and potentially causing disturbance (Ali et al., 2021).

Adverse Effects of Excessive Sound

The WHO identifies seven noise pollution impacts: hearing loss, social issues, communication interference, sleep disruption, cardiovascular problems, and mental health disturbances (Jariwala et al., 2017). Hearing impairment involves a partial or total inability to hear sounds. Chronic exposure to noise above 75 dB (A) can cause health problems like hearing loss, with prolonged noise affecting cochlear hair cells, resulting in Noise-Induced Hearing Loss (NIHL) and potential acoustic trauma (Mohamed et al., 2020). Noise-Induced Hearing Loss (NIHL), the second leading cause of sensorineural hearing loss after age-related decline, affects roughly 5% of the global population, with major physical, mental, social, and economic consequences (Dobie, 2014). A qualitative study identifies negative attitudes, avoidance behaviors like moving house, and health and relationship issues related to the problem and relevant authorities (Park & Lee, 2015). The study shows that speech errors lower user acceptance but reveals no significant impact on workload or physiological factors like heart rate and skin conductance; industrial noise affects word error rates more than information transfer in speech commands (Rosilius et al., 2024). Noise affects sleep by altering heart rate, blood

flow, breathing, and other systems. Habituation varies by noise type and level. In work settings, shift work and stress also impact sleep quality (Kawada, 2011). Studies show that noise pollution raises hypertension rates, a major risk factor for cardiovascular disorders. In developing countries, rising hypertension may be linked to persistent noise. Without government action to address this, cardiovascular disease could become widespread (Aluko & Nna, 2015). Noise sensitivity significantly associates with internalizing, externalizing, and total behavioral problems, particularly in low-income groups. Recent evidence shows traffic noise, especially aircraft noise, increases depression risk by 12% per 10 dB LDEN. Road and railway noise have minor effects, and gaps in research on anxiety, dementia, and cognitive decline persist (Health & Review, n.d.). Urbanization and pollution, including noise, are associated with cardiovascular, metabolic, and psychiatric disorders. A review of 40 studies highlights noise's role in affective disorders, particularly for vulnerable groups. Using GEDA 2012 data, in Germany, high levels of noise annoyance are associated with worsened mental health. Further research is needed (Hammersen et al., 2016).

Threshold Noise level in Nepal

The government of Nepal has formulated noise level standard for different areas for day and night time is given in Table 1.

Table 1

Noise level standard of Nepal

Area	Noise Level (dB)	
	Day time	Night Time
Silent zone	50	40
Industrial area	75	70
Business area	65	55
Residential area	45	40
Urban residential area	55	45
Mixed residential area	63	40

Source: (Campus, 2019)

Method and Materials

Study area

Lahan City, located in the eastern Siraha district along the Mahindra Highway (East-West Highway), is approximately 350 km (99.3 miles) east of Kathmandu. Positioned at a latitude of 26.7297° N and longitude of 86.4794° E, Lahan faces ecological challenges due to urbanization, rapid population growth, and a high

volume of daily vehicle registrations. The city is divided into twenty-four wards, each with detailed household and population data (NCS, 2011).

Sampling sites

In this study, the southeastern part of Lahan City in Nepal was chosen for analysis. Seventeen sampling points were selected, including traffic areas, residential areas, silent zones, and commercial areas. Traffic areas included East Bus Station, West Bus Station, Ramesh Chowk, and Radha Krishna Chowk. Residential areas were Padariya Chowk, Bastipur, and Bhadiya. Silent zones comprised Pashupati Ma. Bi., Sankalpa Vidhyashram, JSMMC Lahan, Choudhary Eyes Hospital, Friends Model Hospital, Saptarishi Hospital, and Lahan Cancer Care Hospital. Commercial areas included New Vegetable Market and Ghantaghar.

Table 2

Classification of standard areas related to Lahan City on basis of Geographic Co-ordinates (GC's)

Area	Location	GC's	
		Latitude	Longitude
Traffic Area	East bus station	26.7155469N	86.4713991E
	West bus station	26.7932473N	86.3283469E
	Ramesh chowk	26.7126859N	86.4791589E
	Radha Krishna chowk	26.7280902N	86.4799319E
Residential Area	Padariya Chowk	26.7190066N	86.4630022E
	Bastipur	26.7462382N	86.4399140E
	Bhadiya	26.7562614N	86.4819637E
	Pashupati ma.bi	26.7297827N	86.4794697E
Silent Area	Sankalpa Vidhyashram	26.7108593N	86.4824529E
	JSMMC Lahan	26.7297366N	86.4688232E
	Choudhary eyes hospital	26.7102407N	86.4927968E
	Friends Model hospital	26.7096743N	86.4894849E
	Saptarishi Hospital	26.7062764N	86.4989036E
Commercial Area	Lahan Cancer care hospital	26.7191364N	86.4801289E
	New vegetable market	26.7244680N	86.4782977E
	Ghantaghar	26.7183570N	86.4815101E

Material

Table 3

Technical Specification of Sound Level Meter

Measuring Range	30~130dBA
Accuracy	$\pm 1.5\text{dB}$
Frequency Response	31.5Hz~8KHz
Frequency Weighting Response	A Weighting
Resolution	0.1db
Power Source	3*1.5V AAA Batteries
Working Temperature and Humidity	0~40 ⁰ C, 10~80%RH
Storage Temperature and Humidity	-10~60 ⁰ C, 0~90%RH
Weight	84.08g (Excluding Battery)
External Dimension	50*33*159.5mm

Measuring instrument

(Sound Level meter SL-4010)



The appearance design of digital sound level meter is novel, small and portable. The digital sound meter is applicable for measurement of noise engineering, quality control, health prevention and various environment noise, including noise measurement in such various places as factories, offices, transporting routes, families, stereo equipment and other places.

Method

For recording data, there seventeen different sample places are taken at random considering certain criteria such as high traffic zones, main trade centers, salient areas and residential areas. At each location data are taken in three shifts (Morning at time from 9:05 to 9:55, day at time from 1:05 to 1:55 and evening at time from

5:05 to 5:55). The sound level meter was placed on its stand of one meter height and distance of 5 meter from central road on main junctions whereas central part of trade centers. While taking observation sound level meter was set to response fast and selected dB (A).

Formulation- need of theory

Weight Decibel Level (L_x)

The noise level exceeded for x percentage of time is denoted by L_x. The most common noise exceeded level is used is L₁₀ noise level which means noise level exceeding for 10% of time and calculated as 10th percentile of data. Noise level exceeding for 50% and 90% are respectively denoted by L₅₀ and L₉₀ are calculated as 50th and 90th percentile of data.

Equivalent Sound Level (L_{eq})

It is the equivalent continuous noise level measured over a given period measured continuously at a particular point. It is measured by the equation (Roy et al., 2022):

$$L_{eq} = 10 \log \left(\frac{1}{10} \sum_{i=1}^n 10^{\frac{L_i}{10}} \right) \quad (1)$$

Where L_i is the ith sound pressure level.

Noise Pollution Index (LNP)

LNP serves as an indicator of the pollution in the environment for physiological and psychological disturbance of the human body. It is given by the equation (Roy et al., 2022):

$$LNP = L_{eq} + (L_{10} - L_{90}) \quad (2)$$

Noise climate (NC)

Noise climate (NC) indicates the noise pollution level and is given by the relation (Roy et al., 2022):

$$NC = (L_{10} - L_{90}) \quad (3)$$

Traffic Noise Index (TNI)

Traffic noise index indicates the degree of variation or degree of annoyance in traffic flow and can be computed using the relation (Roy et al., 2022):

$$TNI = 4(L_{10} - L_{90}) + (L_{90} - 30) \text{ dB(A)} \quad (4)$$

Meaning of L₁₀, L₅₀, L₉₀, L_{max}, and L_{min}

L_{10} is the sound level in dB that is exceeded 10% of the time over measurement period, L_{50} is the sound level in dB that is exceeded 50% of the time over measurement period, L_{90} is the sound level in dB that is exceeded 90% of the time over measurement period, L_{max} is the maximum sound level measured during the measurement period with the sound meter set on SLOW response and L_{min} is the maximum sound level measured during the measurement period with the sound meter set on SLOW response (Bhatarai et al., 2014).

Results and Discussion

Data section

Table 4

Weighted Decibel Levels

Location	Weighted Decibel Levels (Lx)		
	Morning (10:05-10:55)		
	L_{10}	L_{50}	L_{90}
East bus station	85.5	67.5	63.0
West bus station	92.3	83.5	61.7
Ramesh Chowk	96.0	85.0	69.9
Hospital Chowk	71.5	61.9	58.6
Ghantaghar	72.2	59.1	48.0
New Vegetable Market	78.02	72.1	66.9
Padariya Chowk	75.8	66.5	61.7
Pashupati Aadarsh ma.bi	53.2	49.7	46.3
Radha Krishna Chowk	79.8	67.2	64.6
Bastipur	54.4	48.1	45.5
Bhadiya	54.7	52.5	46.2
Sankalpa Vidhyashram Pvt.Ltd	74.0	63.4	55.9
J S Murarka Multiple Campus	64.8	59.6	54.4
Choudhary Eye Hospital	61.6	55.8	51.7
Friends Model Hospital	62.9	54.5	51.5
Saptarishi Hospital	60.8	52.9	49.6
Lahan Cancer Care Center	59.0	54.5	50.4

Table 4 shows the Weighted Decibel Levels (Lx) at 10%, 50%, and 90% for 17 locations during different shifts. In the evening, the Lx 10% value peaks at 96.0 dB at Ramesh Chowk and drops to 53.2 dB at Pashupati Aadarsh Ma. Bi. In the day shift, the Lx 50% value reaches a maximum of 85.0 dB at Ramesh Chowk and a minimum of 49.7 dB at Pashupati Aadarsh Ma. Bi. For the Lx 90% level, the highest value is 69.9 dB at Ramesh Chowk, while the lowest is 45.5 dB at Bastipur in the evening.

Table 5*Weighted Decibel Levels (Lx)*

Location	Weighted Decibel Levels (Lx)		
	Day(1:05-1:55)		
	L ₁₀	L ₅₀	L ₉₀
East bus station	93.1	83.5	61.7
West bus station	71.4	67.9	66.0
Ramesh Chowk	86.4	78.8	70.7
Hospital Chowk	80.9	75.0	61.4
Ghantaghar	69.8	61.7	58.3
New Vegetable Market	90.8	81.4	61.8
Padariya Chowk	71.6	68.0	64.2
Pashupati Aadarsh ma.bi	59.5	56.1	47.6
Radha Krishna Chowk	80.6	70.7	64.0
Bastipur	55.6	52.2	47.9
Bhadiya	60.3	54.0	47.0
Sankalpa Vidhyashram Pvt.Ltd	73.6	67.7	49.6
J S Murarka Multiple Campus	64.8	60.1	52.0
Choudhary Eye Hospital	63.0	60.3	53.1
Friends Model Hospital	64.3	56.6	55.3
Saptarishi Hospital	63.9	55.3	47.5
Lahan Cancer Care Center	56.5	50.7	46.0

Table 5 presents the Weighted Decibel Levels (Lx) at 10%, 50%, and 90% during the evening shift for 17 locations. The results show that the Lx 10% level peaks at 93.1 dB at East Bus Station and reaches a minimum of 55.5 dB at Bastipur during the day shift. For the Lx 50% level, the maximum is 83.5 dB at East Bus Station, while the minimum is 50.7 dB at Lahan Cancer Care Center in the day shift. The Lx 90% level is highest at 70.7 dB at East Bus Station and lowest at 46.0 dB at Ramesh Chowk during the evening shift.

Table 6*Weighted Decibel Levels (Lx)*

Location	Weighted Decibel Levels (Lx)		
	Evening(5:05-5:55)		
	L ₁₀	L ₅₀	L ₉₀
East bus station	85.7	77.2	67.5
West bus station	76.1	70.2	67.2
Ramesh Chowk	73.1	68.3	61.4
Hospital Chowk	75.5	65.7	59.5
Ghantaghar	66.1	59.7	55.8
New Vegetable Market	87.5	82.0	75.1

Padariya Chowk	65.2	60.7	54.1
Pashupati Aadarsh ma.bi	53.9	51.2	47.7
Radha Krishna Chowk	79.6	74.7	63.0
Bastipur	50.0	43.0	39.8
Bhadiya	54.5	52.7	50.4
Sankalpa Vidhyashram Pvt.Ltd	49.9	48.1	44.9
J S Murarka Multiple Campus	51.9	47.0	44.2
Choudhary Eye Hospital	48.8	47.0	44.9
Friends Model Hospital	71.4	64.7	58.7
Saptarishi Hospital	57.6	53.9	47.8
Lahan Cancer Care Center	55.4	52.1	43.5

Table 6 provides the Weighted Decibel Levels (L_x) at 10%, 50%, and 90% during the evening shift for 17 different locations. The data show that the L_x 10% level is highest at 87.5 dB at New Vegetable Market and lowest at 49.9 dB at Sankalpa Vidhyashram Pvt. Ltd. during the evening shift. For the L_x 50% level, the maximum is 82.0 dB at New Vegetable Market, while the minimum is 47.0 dB at JSMMC Lahan or Choudhary Eye Hospital during the evening shift. The L_x 90% level peaks at 75.1 dB at New Vegetable Market and drops to 39.8 dB at Bastipur during the evening shift.

Table 7

Equivalent Energy Level (Leq)

Place	Morning	Day	Evening
East bus station	72.42	87.77	87.77
West bus station	81.30	70.29	69.94
Ramesh Chowk	88.57	82.15	70.29
Hospital Chowk	65.05	77.27	70.70
Ghantaghar	65.95	66.76	61.08
New Vegetable Market	74.64	86.88	83.61
Padariya Chowk	68.03	70.50	62.38
Pashupati Aadarsh Ma.Bi	53.68	58.57	52.35
Radha Krishna Chowk	70.80	76.75	75.57
Bastipur	51.25	54.21	44.38
Bhadiya	54.48	55.32	53.98
Sankalpa Vidhyashram	72.48	69.60	50.31
JS Murarka Multiple Campus	62.52	62.66	46.30
Choudhary Eye Hospital	59.24	61.21	58.84
Friends Model Hospital	58.25	57.78	55.13
Saptarishi Hospital	56.55	57.78	54.01
Lahan Cancer Care Center	56.57	56.98	52.91

Table 7 shows the Equivalent Energy Levels (Leq) for morning, day, and evening shifts. The highest Leq values are 88.57 dB at Ramesh Chowk in the morning, and 87.77 dB at East Bus Station for both day and evening shifts. The lowest Leq values are 51.25 dB at Bastipur in the morning, 56.98 dB at Lahan Cancer Care Center during the day, and 52.9 dB at Lahan Cancer Care Center in the evening.

Table 8

Noise Pollution Level (L_{NP}) at

Place	Morning	Day	Evening
East bus station	94.90	119.17	105.97
West bus station	111.90	75.69	78.84
Ramesh Chowk	114.67	97.77	81.99
Hospital Chowk	77.95	96.77	86.7
Ghantaghar	90.15	78.26	71.38
New Vegetable Market	85.70	115.88	96.01
Padariya Chowk	82.13	77.90	73.48
Pashupati Aadarsh ma.bi	60.58	70.47	58.55
Radha Krishna Chowk	86.00	93.35	92.17
Bastipur	60.15	61.91	54.58
Bhadiya	62.98	68.62	58.08
Sankalpa Vidhyashram	90.58	93.6	55.31
J S Murarka Multiple Campus	72.92	75.46	54.00
Choudhary Eye Hospital	69.14	71.11	62.74
Friends Model Hospital	69.65	66.78	67.83
Saptarishi Hospital	67.75	74.18	63.81
Lahan Cancer Care Center	65.17	67.48	64.81

Table 8 presents the Noise Pollution Levels (LNP) for morning, day, and evening shifts. The maximum LNP values are 114.67 dB at Ramesh Chowk in the morning, 119.17 dB at East Bus Station during the day, and 105.97 dB at New Vegetable Market in the evening. The minimum LNP values are 60.15 dB at Bastipur in the morning, 61.91 dB at Bhadiya during the day, and 54.00 dB at JS Murarka Campus in the evening.

Table 9

Noise Climate (NC) and Traffic Noise Index (TNI)

Location	Morning (9:05-9:55)				Day (1:05-1:55)				Evening (5:05-5:55)			
	L_{10}	L_{90}	NC	TNI	L_{10}	L_{90}	NC	TNI	L_{10}	L_{90}	NC	TNI
East bus station	65.3	82.2	22.5	123	67.6	90.5	31.4	157.3	68.2	90.5	18.2	110.3
West bus station	67.6	90.5	30.6	154.1	67.2	70.8	5.4	57.6	67.2	70.8	8.9	72.8
Ramesh Chowk	71.9	96.0	26.1	144.3	74.6	86.0	15.7	103.5	62.9	71.6	11.7	78.2
Hospital Chowk	60.0	71.2	12.9	80.2	63.4	78.1	19.5	109.4	59.9	74.0	16.0	93.5
Ghantaghar	53.0	69.7	24.2	114.8	58.9	68.8	11.5	74.3	56.1	63.3	10.3	67.0

New Vegetable Market	67.1	75.7	11.12	81.38	67.6	90.2	29.0	147.8	78.3	86.9	12.4	94.7
Padariya Chowk	62.4	71.2	14.1	88.1	65.1	71.4	7.4	63.8	56.5	66.1	11.1	68.5
Pashupati Aadarsh ma.bi	46.6	53.2	6.9	43.9	52.3	59.2	11.9	65.2	48.1	52.7	6.2	42.5
Radha Krishna Chowk	64.7	72.9	15.2	95.4	68.7	80.2	16.6	100.4	65.5	77.3	16.6	99.4
Bastipur	45.8	52.9	8.9	51.1	47.9	54.4	7.7	48.7	40.2	46.0	10.2	50.6
Bhadiya	46.6	54.7	8.5	50.2	47.7	57.8	13.3	70.2	50.5	54.3	4.1	36.8
Sankalpa Vidhyashram Pvt. Ltd	56.3	72.4	18.1	98.3	61.3	69.7	24.0	115.6	45.6	49.5	5.0	34.9
JS Murarka Multiple Campus	55.9	64.0	10.4	66.0	56.4	63.7	12.8	73.2	45.0	49.8	7.7	45.0
Choudhary Eye Hospital	53.3	61.2	9.9	61.3	53.5	62.5	9.9	62.7	53.4	60.7	3.9	30.5
Friends Model Hospital	51.2	60.5	11.4	67.1	51.3	58.9	9.0	61.3	48.6	57.5	12.7	79.5
Saptarishi Hospital	51.9	58.6	11.2	64.4	50.7	57.3	16.4	83.1	48.1	59.0	9.8	57.0
Lahan Cancer Care Center	53.0	56.6	8.6	54.8	46.2	55.9	10.5	58.0	45.7	53.2	11.9	61.1

Table 9 presents the Noise Climate (NC) and Traffic Noise Index (TNI) for morning, day, and evening shifts across 17 locations in Lahan Municipality. The highest NC and TNI values during the morning shift are 30.6 dB and 154.1 dB, respectively, at West Bus Station. The lowest NC and TNI values in the morning shift are 6.9 dB and 43.9 dB, respectively, at Pashupati Aadarsh Ma. Bi. For the day shift, the maximum NC and TNI are 31.4 dB and 157.3 dB, respectively, at East Bus Station, while the minimum values are 7.4 dB at Padariya Chowk and 48.7 dB at Bastipur. In the evening shift, the highest NC and TNI are 18.2 dB and 110.3 dB, respectively, at East Bus Station, whereas the lowest values are 4.1 dB at Bhadiya and 34.9 dB at Sankalpa Vidhyashram Pvt. Ltd.

Data Analysis

Exceed weighted decibel

As concluding, weighted decibels (L_{10} , L_{50} , L_{90}) are exceed as (96.0 dB, 85.0 dB, 70.7 dB) in Traffic Area. Similarly, weighted decibels (L_{10} , L_{50} , L_{90}) are exceed as (75.8 dB, 68.0 dB, 64.2 dB) in Residential Area. Weighted decibels (L_{10} , L_{50} , L_{90}) are exceed as (74.0 dB, 67.7 dB, 58.7 dB) in Salient Area. Weighted decibels (L_{10} , L_{50} , L_{90}) are exceed as (90.8 dB, 82.0 dB, 75.1 dB) in Commercial Area of Lahan Municipality.

Exceed Equivalent sound Level

As concluding, Equivalent Sound Level (L_{eq}) are exceed in Traffic Area (87.77 dB in both day and evening shifts), Residential Area (70.50 dB in Day shift), Salient Area (72.48 dB in Morning shift) and Commercial Area (86.88 dB in Day shift) in Lahan Municipality.

Exceed Noise pollution Level

As concluding, Noise pollution Level (L_{NP}) are exceed in Traffic area (119.17 dB in Day shift), Residential area (82.13 dB in Morning shift), Salient Area (93.6 dB in day shift) and Commercial Area (115.88 dB in Day shift) in Lahan Municipality.

Exceed Noise climate

As concluding, Noise Climate (L_{NC}) are exceed in Traffic Area (31.4 dB in day shift), Residential Area (14.1 dB in Morning shift), Salient Area (24.0 dB in Day Shift) and Commercial Area (29.0 dB in Day shift) in Lahan Municipality.

Exceed Traffic Noise Index

As concluding, Traffic Noise Index (L_{TNI}) are exceed in Traffic Area (157.3 dB in Day Shift), Residential Area (88.1 dB in Morning shift), Salient Area (115.6 dB in Day Shift) and Commercial Area (147.8 dB in Day Shift) in Lahan Municipality.

Conclusion

Analysis wholly conclude that noise pollution in Lahan City threatens human health and economic stability. The local government has taken steps to mitigate this by creating alternative highways, establishing market zones, regulating vehicle registrations, and enforcing noise control policies. These efforts aim to make Lahan a model city in Purwanchal, crucial for regional connectivity and attracting visitors, including Indian patients at Chaudhary Eye Hospital. Current noise levels—such as an Equivalent Sound Pressure Level (Leq) of 86.88 dB, Noise Pollution Index (LNP) of 119.17 dB, Noise Climate (NC) of 31.4 dB, and Traffic Noise Index (TNI) of 157.3 dB—exceed safe limits. It is recommended to enhance market policies and protective measures to rescue the sensitive sites of Lahan city from sound pollution.

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Horror of Students' Dropout in Bachelor Level

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ABSTRACT

Students' dropout is a great issue in bachelor level. This article basically explores students' dropout in bachelor level of J.S. Murarka Multiple Campus Lahan, Siraha especially in BBS and B.Ed. in the batch of 2076BS -2079BS. The objective is to find-out main reasons of dropouts. Qualitative research design has been used to find out students' dropouts. Twenty students from BBS and twenty students from B.Ed. who had left the campus had been selected for telephone interview to find-out the reasons of dropout. Unstructured telephone interview was selected as the tool for interview to collect the data. On the other hand, data was collected from the administration of campus to understand the exact number of students who had dropped the campus. Actually, it has created horror in higher education as large number of students drops out for different indicators such as student related indicators, campus related indicators and family related indicators. Students 'dropout can be stopped through motivation, engagement, encouragement, academic support, feedback, providing free ship and scholarship to the marginalized groups as well as subalterns and showing positive behavior by teaching and non-teaching staffs.

Keywords: Disengagement, Dropout, Enrollment, Migration, Subalterns

Introduction

Students' dropout has been a challenge in campus level. Number of increasing dropouts has become an issue in higher level of education in the age of globalization. The researchers of several campuses have made such an issue as burning topic for exploration as well as investigation. Campus level belongs to the higher education which is the sign of socio-cultural, economic and educational development of the country. It produces skilled, dynamic and energetic manpower in the country. Such quality of the manpower makes the competent to be sold in the competitive market of the globalization. Higher education is the sign of economic and social development in the country. It helps in preserving and

developing the historical and cultural heritages of the nation (*UGC, Annual Report, 2018-19*).

According to the Goals of Higher Education (UGC Report, 2021), 'Producing capable, scientific, innovative, and globally competent and research oriented human resources and enhancing in all layers and types of education by developing criteria and standards based on national and international experiences and practices.' Vision, Mission and Goal of UGC are to produce research based and competitive manpower in Nepal but number of dropouts is increasing day by day. How can be vision, mission and goal of UGC fulfilled as dropouts increase rapidly?

J.S. Murarka Multiple Campus Lahan, Siraha is one of the community-based campuses of Nepal affiliated to Tribhuvan University (T.U.) which was established in 2044 B.S. The programs which are currently running in this campus are B.A.(Bachelor of Arts), B.Ed.(Bachelor of Education), B.B.S.(Bachelor of Business Studies), M.Ed. (Master of Education), M.B.S.(Master of Business Studies), B.I.C.T.E., B.Sc.(Bachelor of Science) and M.A.in Sociology. Although this campus is QAA certified, there is the horror of students' dropout. Most of the higher educational institutions of Nepal face student's dropouts. Previously, no researches had been conducted on students' dropout in the context of faculty of Management and Education. Therefore, this article focused on the dropout problem of J.S.Murarka Multiple Campus Lahan, Siraha. The institution tries to control dropout. On the other hand, this paper assists the parents of students to understand the internal and external causes of dropout. This article helps the stakeholders to control such problems in campus and Nepal as well.

A high dropout rate has an effect on educational system and labor market in the country. The reasons of students' dropouts are feeling of failure, loss of self-confidence, poverty, job opportunities etc. Generally, students are leaving their study by their free will. Sometimes, the campus loses potentially successful students. The UGC provides the fund on the basis of qualitative product and number of students. It is very important to find out the reality of dropouts by both campuses and the university because it is a loss for both. Psychological disengagement involves a feeling of uncertainty.

It is recommended that additional study on those who succeed, in spite of psychological engagement, could provide information on how campus can mediate when there is a lack of belonging and students' behaviors and attitudes are poor. Engagement portrays that attachment to campus is vital for students to have success in the classroom. Students who feel secluded from parents, teachers and peers lack of any encouraging relationships. Peer groups that unite students and campus have the potential to decrease the dropout rate (Brewster & Fager, 2000).

There are several factors such as parents, teachers, peers, economic status, and recreational activities etc. which create positive environment to engage the students in campus. This research shows that there should be favorable environment for students' motivation, good personality and academic skills in order to minimize dropout rate in campus. Students' dropout is an issue in campus level. Their engagement on study plays a vital role to control problems of dropout. They do not present in achievement test because of psychological, economical, socio-cultural, and educational problems. Campus level dropouts can be classified into three groups. They are: a. Voluntary (voluntary or forced dropouts) b. temporary (whether initial, early or late) and, c. scope (internal, institutional or from the education system) (UNESCO,2011). Subedi (2022) of Nilkantha Multiple Campus, TU wrote "Factors Influencing Dropout Rate in Bachelor's Degree at Nilkantha Multiple Campus". Similarly, Subedi (2023) wrote "Factors Influencing Students' Dropouts in Bachelor's Program in Kalika Multiple Campus, Pokhara". Berko and Morek (2021) wrote Bachelor's Degree Student Dropouts: Who tend to Stay and Who tend to Leave? Devkota and Bagale (2015) wrote Primary Education and Dropout in Nepal.

Research Problems

Students' dropout has become a great issue as well as challenge for Quality Assurance and Accreditation (QAA) certified campuses like J.S. Murarka Multiple Campus Lahan, Siraha. What are the reasons of students 'dropout in Higher Education Level (HEI)? How can be vision, mission and goal of campuses fulfilled? Risk factors for the students of higher education institution include: comparison of athletic or social performance with their peers, use of drug or alcohol, family history of depression, fear of disappointing, their poor results and career path, difficulties of adjustment among the peers, sexual assault, gender discrimination, personal stressors, lower earnings of parents, and engagement in high risk behavior.

What are the factors which help to solve the problems of student's dropout in campus level? What are the agencies which help to prevent dropouts in campus level and how? What might be the implications /suggestions to solve dropout problems in campus level? The main objective of this investigation was to explore the dropout rate in campus level and its solutions as well.

Methods and Procedures

Qualitative research design was used as the method in this article. The nature of this article is descriptive and analytical. Apart from descriptive and analytical approach, a survey research design was adopted for the appropriate analysis as well as judgment of the article. The data had been collected from both primary and secondary sources. The researcher had selected 40 dropout students where 20

students were from BBS, academic year was 2076-2080 and 20 students from B.Ed. of the same academic year. All students had been selected from J.S. Murarka Multiple Campus Lahan, Siraha. Telephone conversation as an appropriate tool had been used to communicate with dropout students to understand real problems for their dropouts. Some data were collected from administrative body of J.S. Murarka Multiple Campus Lahan, Siraha which have been shown in the table.

Results and Discussion

The students seek their admission in BBS and B.Ed. in J.S. Murarka Multiple Campus Lahan, Siraha on the counseling of their parents and relatives but psychologically they are unsatisfied. Therefore, they quit their study and search another opportunity. In addition, psychological disengagement towards study in BBS and B.Ed. is also the cause of dropouts in bachelor level. Although, this campus is QAA certified by UGC and best campus award provided by Nepalese Government in 2076 B.S. but there is student's dropout in this campus as well.

Table 1

Students' dropout in the Faculty of Management

Level	Academic Year	Enrollment	Exam appeared	Dropped	Dropped Percentage
BBS 1st	2076 B.S.	308	255	53	17.20%
BBS 2nd	2077 B.S.	255	219	36	14.11%
BBS 3rd	2078 B.S.	219	208	11	5.02%
BBS 4th	2079 B.S.	208	196	12	5.76%
Grand Total		308	196	112	42.09%

Source: Administration section, JS Murarka Multiple Campus Lahan, Siraha

On the basis of data given in table 1 that was collected from examination section of campus shows that 308 students were enrolled in BBS first year in 2076 B.S. 255 students had only filled up their examination form for the final examination. 53 students had left their study in first year. Percentage of students' dropout in BBS first year was 17.20. Similarly, enrollment of students in BBS second year (2077 B.S.) was 255. 219 students had filled up their examination form. Total number of students' dropout was 36 and its percentage was 14.11%. Students' enrollment in BBS third year (2078 B.S.) was 219. 208 students had filled up their examination form out of 219 so that total number of students' dropout was 11 whose total percentage was 5.02%. Consequently, 208 students had sought their admission in BBS fourth year (2079 B.S.) whereas 12 students had left their study as 196 students only had filled up their examination form. Total percentage of students' dropout in BBS fourth year was 5.76%. Table 1 shows that 112 students had left the campus. The total percentage of dropout students was 42.09%.

The consequences of dropout are related to psychological factors such as feeling of individual failure, loss of self-confidence and fear of frustration as well. They are also related to economic problem, organizational problem and personal problem. The public campus like J.S. Murarka Multiple Campus Lahan, Siraha runs on the fees which are collected from the students faces a great challenge to maintain the expenditure of campus.

Dropout rate also affects to the society level especially educational system and labour market of the country. Anyway, higher dropout rates are the reasons for the instability of higher education system which affects the society as well. This instability resulting in considerable economic costs for the state and large investments in education that do not contribute the desired educational outcomes for the population(Gonzalez et.al 2007).

Table 2

Students' dropout in the Faculty of Education

Level	Academic Year	Enrollment	Exam appeared	Dropped	Dropped Percentage
BEd 1st	2076B.S.	260	200	60	23.07%
BEd 2nd	2077B.S.	200	179	21	10.5%
BEd 3rd	2078B.S.	179	161	18	10.05%
BEd 4th	2079B.S.	161	153	8	4.96%
Grand Total		260	153	107	48.58%

Source: Administration section, JS Murarka Multiple Campus Lahan, Siraha

Data in table 2 was provided by the examination section. Data shows that students 'enrollment in B.Ed. first year (2076B.S.) was 260 where 200 students had filled up their examination form for the final examination. Student 'dropout was 60 whose total percentage was 23.07%. Similarly, total number of students' enrollment in B.Ed. second year (2077B.S.) was 200 whereas 179 students had only filled up their examination form so that number of students' dropout was 21 whose percentage was 10.5%.In addition, 179 students had taken their admission in third year(2078 B.S.) where 161 students only had filled up their examination form. Student's dropout was 18 whose percentage was 10.05%. On the basis of data, 161 students had sought their admission in Fourth year (2079 B.S.). Out of 161 students, 153 students only had filled up their examination form where students 'dropout was 8 whose percentage was 4.96%. Thus, Total number of students 'dropout in B.Ed. level in the batch of 2076B.S.-

Stakeholders feel horror because of student' dropout in bachelor level. According to campus chief, It is very difficult to manage the expenditure of J.S. Murarka Multiple Campus Lahan, Siraha.

Bechard, and Hambly (1989) opine there are three indicators affecting students' dropouts: i. student related indicators ii. campus related indicators iii. family related indicators. Dropout of J.S. Murarka Multiple Campus Lahan, Siraha has been shown in the following table.

Table 3

Students' dropout using different indicators

S.N.	Indicators	No. of dropout Students	Total No. of Dropout Students (B.B.S. +B.Ed.)
1	Students Related indicators	B.B.S.-7 B.Ed.-8	7+8=15
2	Campus- Related indicators	B.B.S.-6 B.Ed.-5	6+5=11
3	Family Related indicators	B.B.S.-7 B.Ed.-7	7+7=14
Total No. of Students (B.B.S +B.Ed.)			20+20= 40

The researcher had taken interview of 20 students from B.B.S. and 20 students from B.Ed. through telephone interaction. Fifteen students belong to the student related indicators where seven students are from B.B.S. and eight students are from B.Ed. Similarly, eleven students had left the campus because of campus related indicators where six students are from B.B.S. and five students are from B.ED. Family related indicators contain fourteen students where seven students are from B.B.S. and seven students are from B.Ed.

Student related indicators (fifteen students)

Three boys of B.B.S. and Three boys of B.Ed. replied that they left the campus because they failed in first year. Two students of B.B.S. and three students of B.Ed. said that they got government job of *suba* so that they had to leave their study as they could not manage the time. Two students of B.B.S. and two students of B.Ed. told that they got early marriage so that they left the study and went to gulf countries to earn money.

It explores the dynamic process of acculturation at work in that situation where cultural pressures are ambiguous. UAE is a region with a very large expatriate working population, where individuals have to make their own behavior and attitudinal choices within social frameworks that encompass family, organization and the society at large (Molavi,2007)

Dream of the students changes after taking their admission in BBS and B.Ed. levels. By the result, they search their opportunity in different sectors. When the students seek their admission, they carry appropriate schedule but their schedule does not match the schedule of TU and its examination system as well as delay in

result. So, several students who come from poor family background leave campus education and go to gulf countries for working purpose. Some students replied on telephone conversation that they had left their campus because their academic performance was very poor because of irregular class and lack of reading materials as they could not purchase on time. When the researcher had asked with the respondents, they had replied differently. They had enrolled their admission in first year but their dream was to get the job of *suba* that is why, they were taking the class of *lokseba*. When they reached in third year, their dream was fulfilled as they became *suba*. Then they could not manage the time for the class and examination. At last, they quit their study.

There is a horror of students 'dropout in the university level which has affected in many countries across the globe as its occurrence rate is very high. It can be noted that the Organization for Economic Co-operation and Development.(OECD) indicates that 20%of students entering tertiary education do not finish their programs. This type of dropout shows that students seem to be frustrated in their life. They think they will not be successful from the academic education. They cannot manage their stress which are related to their family and campus.

Campus- Related indicators (Eleven Students)

There are various kinds of indicators related to administration, faculties, campus environment/climate, learning environment, teacher-student engagement, campus structure, vision, mission, and goal of campus as well as administrative members, which increase dropouts in campus. Wells et al. (1989) talks about administrative obstacles of students and dropouts in campus.

The respondents replied through telephone conversation which relates to this indicator. The researcher explored following influential factors on the basis of telephone conversation:

- a. Lack of sufficient counseling from faculties, administrative body and non-teaching staff
- b. Lack of scholarship for the marginalized groups
- c. difficulties to understand subject-matter
- d. Programs not suitable
- e. Inappropriate schedule of Examination and Results of T.U.

Three students of BBS and two students of B.Ed. replied that they had left their study lack of sufficient counseling from faculties, administrative body and non-teaching staff about use of academic course of B.B.S. and B.Ed. The students of B.Ed. said that there was burden of practical examination in B.Ed. The teachers did not co-operate properly for the practical activities. Students of B.B.S. said that Campus administration, faculties and non-teaching staffs should play positive role

towards students to control students' dropout. Receptionist should keep all the records of students. When any students are absent, she should immediately contact with them and inform to the administrative members.

Hutt (2011) states other indicators for psychological engagement are interests and enthusiasm, a feeling of belonging, and identifying with the campus community. Motivation and engagement both can be connected within teaching-learning activities. When students lack intrinsic motivation, and they are not engaged in class instruction or classroom activities, they tend to fall behind.

Thus, main causes of students 'dropout related to campus indicators are lack of academic support, proper feedback, counseling, motivation and encouragement.

One student of B.B.S. and two students of B.Ed. replied that they had sought their admission in first year. In the beginning they were very interested on their study. They had bought textbooks and other materials. Some teachers were following teacher -centered method. They did not care properly. The students were compelled to follow the discipline. They did not adjust in that environment. The seniors suggested them to prepare for government job. Therefore, they had quit their study and went to Kathmandu for preparation of *Lokseba*. The main causes of dropout explored from campus -related indicators were lack of student-centered method, academic support, proper encouragement, motivation etc. Two students from B.B.S. and one student from B.Ed. replied that they sought their admission in first year with high dream but inappropriate schedules of examination and results of TU frustrated them. That is why, they had left their study and started their business. Same student of B.Ed. had told that he enrolled in B.Ed. first year. He took the final examination of first year and second year as well but he passed two subjects in first year and three subjects only in second year. That is why, he left his study and went to Japan on study visa.

Family Related indicators (Fourteen Students)

From telephone interaction, the researcher found that family related factors are:

- a. Poverty
- b. Illness of family members

Five students of B.B.S. and five students of B.Ed. had enrolled their admission in first year having a dream to become a good teacher. They were the eldest among their siblings. Their fathers were simple farmers who could not manage the expenditure of family. Their mothers were housewives. Their fathers had to marry to their elder sisters where handsome amount of dowry was needed. Their fathers were always talking about their tension related to poverty among the family members. Sometime they could not sleep properly at night. So those students thought it was better to support their father by doing a job. That was why; they left their campus and started to work. Family related problems affect very much on the

education of students. Several students quit their study because of family related indicators. Two students of B.B.S. and two students of B.Ed. replied that their parents' health condition was not good so that they had to control all the activities of home. They had to send them to the hospital time and again. Finally, they came to conclusion that it was better to quit their campus and look for a job so that their family could run smoothly.

Apart from above mentioned problems, there some other influential factors related to family were:

- a. Lack of psychological support
- b. Lack of motivation and encouragement
- c. Separation between /among family members
- d. Work opportunity in the foreign land especially gulf countries
- e. Falling in love by the students
- f. Increasing drug -abuse in society

Most significant factors that affect the students' dropout are students related factors, Campus Related Factors and family related factors.

Conclusion

This journal article has highlighted the marginalized and middle class of students who are reading in this campus. Several students belong to the disadvantageous groups who change over time as per need and problems arisen in their life. In the context of higher education, students' dropout has become a great problem. It is found that most of the students quit their study because of student related indicators, family related indicators and campus related indicators. There is horror of students' dropout in this campus as the result shows that 42.09% of the students' dropout in BBS and 48.58% of the students dropout in B.Ed.

No doubt, poverty, low-family status, diseases, foreign employment, migration to host lands for further education, socio-cultural status are the reasons behind students' dropout. Students' dropout has created horrible situation in campus.

Dropout rate is very high in bachelor level. That is why; stakeholders must take this issue as a great challenge. They should try to solve this problem by finding the real problems. There is the urgent need of alternative mechanism who will find-out the realities of dropout to be immediately solved. Thus, reasons of students' dropout relate to students themselves, their family and campus. Students' dropout is an issue in campus level. To solve dropout problem, motivation plays an important role to make the academic successful. No doubt, teachers are the leading resources to control dropout problems by motivating the students. However, dropout rate has challenged the educational sectors for sustainability to their teaching staff, curriculum structure and resources as well.

Remedial actions are needed to control students' dropout. Campus should provide scholarships to those students who belong to the marginalized groups. Government should manage education loan and part-time job opportunity so that the students complete their higher education by doing a part-time job. Stakeholders such as parents, faculties, campus administrators, non-teaching staffs, education ministry, local government, province government and central government should make a commitment to eradicate the problems of dropout. The students, parents, speech community, and society should also be made aware to control dropout problems. Students' supportive programs such as student placement should be implemented properly to help the students in campus. Freeship, scholarship, tutoring and extra classes should be properly managed.

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Incentives and Job Performance of Teachers in Higher Education Institutions

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Abstract

Incentives are compensations provided to employees to acknowledge their contributions to an organization. Incentive management is a structured approach to fostering positive work-employee relationships by offering monetary and non-monetary benefits. This study examined the impact of incentives on the teachers' job performance in quality-accredited higher education institutions in Nepal. Using an exploratory design, data was collected from 104 academic staff across four institutions, selected from a population of 3,900 academic staff at 76 accredited institutions using a five-point Likert's scale structured questionnaire. Pearson correlation and regression analysis revealed that non-monetary incentives significantly enhance teachers' job performance, while monetary incentives showed no significant effect. The findings suggest that teachers are dissatisfied with monetary incentives, as there is no marginal difference in pay between a high performer and a low performer. The inferences drawn by this study will be helpful to all

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the stakeholders such as UGC Nepal, HEIs, teachers, and policymakers who are directly or indirectly involved in the reform of higher education.

Keywords: Higher Education Institutions (HEIs), Incentives, Job performance, Monetary incentives, Non-monetary incentives

Introduction

The incentive is the compensation an employee receives in return for his/ her contribution to the organization. Incentive management is an organized practice that balances the work-employee relationship by providing monetary and nonmonetary benefits for employees (Reddy, 2020). Studies show that incentives significantly and positively affect performance (Jufrizen et al., 2017; Priyono & Suheriyatmono, 2016; Sudiardhita et al., 2018; Sumenge, 2016). The increase in incentives will increase employee job satisfaction. Job satisfaction mediates the effect of incentives on employee performance (Darma & Supriyanto, 2017). In higher education institutions, teachers' performance is crucial for the quality of

education and students' success. Institutions often employ both monetary and non-monetary incentives to enhance job performance.

Incentives can be divided into monetary and non-monetary categories. Monetary incentives involve salary increases, performance bonuses, research grants, pension plans, retirement benefits, additional allowances, health and wellness benefits, etc. Non-monetary incentives, on the other hand, focus on professional development opportunities, recognition, work environment, job security, autonomy, academic freedom, and work-life balance.

Okennam (2004) opined that poor or no motivation will cause workers to be inefficient and ineffective at their work. Scholars have mixed feelings about whether money has either a positive or negative effect on motivation. Ejiofor and Aniagoh (1984) recognized the fact that dissatisfaction with workers' pay results in low performance. Wallace and Zeffane (2001) supported that money, as per Maslow's hierarchy of needs theory, can motivate employees with unfulfilled lower-order needs, particularly those with limited education and skills, thereby reducing turnover and boredom. However, Arnolds and Venter (2007) supported the strategic importance of nonfinancial rewards for motivation. Ellis and Pennington (2004) found that direct financial rewards played a critical role in attracting talented employees, but they have only a short-term impact on the motivational levels of employees.

Managers often struggle to understand the relationship between rewards and motivation. Incentives should be based on employee contributions, skills, competence, and market-worth (Armstrong, 2007b). Langton and Robbins (2007) argued that rewards to motivate individuals must be important to them, and perceived as a direct reward for performance, with a significant marginal difference in pay between high and low performers. Reddy (2020) suggested that a good compensation package should be competitive and as per industry standards to attract and sustain the best talent.

It is therefore important to investigate whether teachers in HEIs are motivated by monetary or non-monetary incentives and if so, which is more lucrative for them. Such a question can only be addressed through an empirical study. This study is poised to provide an answer to the following research questions:

- To what extent are the monetary and non-monetary incentives individually or jointly associated with teachers' job performance in HEIs?

Theoretical Framework

The research work was conducted base on the theories stated below:

Maslow's Need Hierarchy (Employee Need Theory)

Abraham Maslow organized five major human needs into a hierarchy. The need hierarchy illustrates Maslow's conception of people satisfying their needs in a specific order from bottom to top such as physiological, safety/ security, social, ego, and self-actualization. According to Maslow, people are motivated to satisfy lower needs before trying to satisfy higher needs. Also, once a need is satisfied, it is no longer a powerful motivator (Maslow, 1958).

Herzberg's Two-Factor Theory

Frederick Herzberg proposed that two types of factors influence or drive employees to work: motivators and hygiene factors. Motivators consist of achievement, responsibility, advancement, recognition, growth, and work, whereas hygiene factors consist of pay, working conditions, supervision, relationships at work, security, and status. Hygiene factors prevent dissatisfaction but do not lead to high satisfaction. Besides these factors, motivators cannot be effective because employees will remain dissatisfied. Salary is one of the hygiene factors. Thus, salary i.e. money does not lead to a high level of satisfaction but impacts it to some extent. To drive employees towards higher performance, motivator factors are necessary (Herzberg, 1960; Alshmemri et al., 2017).

The Financial Reward Approach

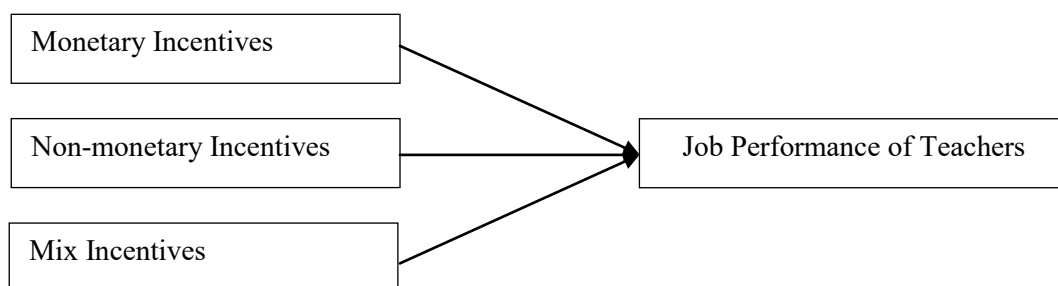
Herzberg's two-factor theory has attained general acceptability from management and scholars. It encourages managers to provide higher-level need satisfaction for their employees. However, its view that money does not motivate the employee has resulted in several criticisms of the theory. The financial reward approach tries to explain the relationship between money and motivation. According to this viewpoint, people are primarily motivated by monetary rewards and will be motivated to better performance if rewards and penalties are directly tied to the results they achieve (Oluigbo & Anyiam, 2014). (Armstrong, 2007a)

Conceptual Framework of the Study

The conceptual framework of the study has been framed as follows:

Figure 1

Conceptual Framework of the study



Research Design and Methods

An exploratory research design was executed for this research. The primary data had been collected through a 5-point Likert scale questionnaire. The drafted questionnaire was presented to the two professors from two universities as subject experts for assessment regarding its suitability, applicability, and appropriateness of its content i.e. content validity. The improved questionnaire was administered to teaching faculties of 4 accredited campuses namely: Triyuga Multiple Campus (Gaighat), Janta Multiple Campus (Itahari), J.S. Murarka Multiple Campus (Lahan), and Sukuna Multiple Campus (Morang). The primary data for the study was collected from April 2023 to May 2023. The study population consisted of 3,900 teachers from the 76 accredited colleges in Nepal. A convenience sampling design was executed. The researcher visited the target campuses, distributed the structured questionnaire to the available faculties, and collected the responses on the same or the next day. Altogether 104 questionnaires were collected from the respondents. The received questionnaires were coded and entered into SPSS 20.

Reliability of Questionnaire

Cronbach's alpha (α) was used to determine the reliability of the questionnaire used in the pilot study. If $\alpha \geq 0.70$, then the items were considered as reliable. The following variables/ items met the standard of Cronbach's alpha value (α) which is 0.7:

Table 1

Output of Reliability Test of Dependent and Independent Variables

Variables	No. of Items	Cronbach's alpha
Monetary Incentives	9	0.9
Non-monetary Incentives	12	0.91
Job Performance of Teachers	22	0.917

Cronbach's alpha value of both the independent variables i.e. Monetary Incentives (0.9) and Non-monetary Incentives (0.91) was above the cut-off value of 0.7. Furthermore, Cronbach's alpha value of the dependent variable i.e. job performance of teachers was 0.917 above the cut-off value of 0.7. So, the reliability of the questionnaire was established.

Validity of Questionnaire

Pearson's correlation coefficient (r) was used to establish criterion validity. The critical value for a two-tailed test, with 102 degrees of freedom ($N - 2$) at a 0.05 significance level, was approximately ± 0.1946 . For the criterion validity of the questionnaire, each item in the questionnaire needed to exhibit correlations higher than this critical value. Since all the calculated correlation coefficients of the items in the questionnaire except PoT_20 fell above the critical value of 0.1946, the criterion validity of the questionnaire except PoT_20 is established.

Variable	Questions about each variable																					
Monetary Incentives	MI_1	MI_2	MI_3	MI_4	MI_5	MI_6	MI_7	MI_8	MI_9													
Pearson's correlation coefficient (r)	.880**	.880**	.880**	.880**	.730**	.642**	.642**	.541**	.617**													
Validity criterion met	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes													
Non-Monetary Incentives	NMI_1	NMI_2	NMI_3	NMI_4	NMI_5	NMI_6	NMI_7	NMI_8	NMI_9	NMI_10	NMI_11	NMI_12										
Pearson's correlation coefficient (r)	.831**	.831**	.831**	.766**	.766**	.721**	.630**	.679**	.642**	.617**	.519**	.652**										
Validity criterion met	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes										
Job performance	PoT_1	PoT_2	PoT_3	PoT_4	PoT_5	PoT_6	PoT_7	PoT_8	PoT_9	PoT_10	PoT_11	PoT_12	PoT_13	PoT_14	PoT_15	PoT_16	PoT_17	PoT_18	PoT_19	PoT_20	PoT_21	PoT_22
Pearson's correlation coefficient (r)	.618**	.648**	.698**	.595**	.768**	.796**	.826**	.794**	.519**	.744**	.642**	.740**	.680**	.644**	.745**	.680**	.224*	.716**	.716**	.135	.604**	.347**
Validity criterion met	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes

Data analysis tools

The Pearson correlation test was used to measure the association of monetary/ non-monetary/ mixed incentives (independent variable) with teachers' job performance (dependent variable). Table 2 presents the rule of thumb for analyzing the value of the Correlation Coefficient.

Table 2

Rules of thumb for correlation coefficient range

Coefficient Range	Strength of Association
± 0.91 to ± 1.00	Very strong
± 0.71 to ± 0.90	Strong
± 0.41 to ± 0.70	Moderate
± 0.21 to ± 0.40	A small but definite relationship
± 0.00 to ± 0.20	Slight, almost negligible

Furthermore, a multiple regression analysis was executed to investigate the relationship of monetary incentives and non-monetary incentives (independent variable) with the job performance of teachers (dependent variable).

The regression model for the study is as follows:

$$PoTi = \alpha_0 + \beta_1(MI_i) + \beta_2(NMI_i) + \epsilon_i \dots \dots \dots (1)$$

Where, MI_i = Monetary Incentives; NMI_i = Non-monetary Incentives; ϵ_i = Error Term; $PoTi$ = Job performance of teachers; α_0 = Intercept line; and β = Regression line.

Results and Discussion

Respondents' Perceptions of Monetary and Non-monetary Incentives

Table 3 displayed the perception of respondents regarding various aspects of monetary and non-monetary incentives as well as mean, standard deviation, and the number of cases involved in the analysis of each item. Out of 104 cases, all cases (100% of total cases) were found to have no missing responses. The mean values of all the statements regarding monetary and non-monetary incentives were more than 3 except MI_6 , MI_7 , MI_8 , MI_9 , NMI_{10} , NMI_{11} , NMI_{12} , NMI_{20} , and NMI_{21} . A mean value of more than 3 indicated that respondents were positive towards these aspects.

Table 3*Respondents' Perceptions of Monetary and Non-monetary Incentives*

	Items	SDA	DA	U	A	SA	Total	Mean	Std. Deviation
MI 1	Teachers are satisfied with monetary benefits such as salary.	12 (11.5%)	24 (23.1%)	23 (22.1%)	30 (28.8%)	15 (14.4%)	104 (100%)	3.12	1.249
MI 2	Teachers are satisfied with monetary benefits such as leave pay.	12 (11.5%)	24 (23.1%)	23 (22.1%)	30 (28.8%)	15 (14.4%)	104 (100%)	3.12	1.249
MI 3	Teachers are satisfied with monetary benefits such as retirement benefits.	12 (11.5%)	24 (23.1%)	23 (22.1%)	30 (28.8%)	15 (14.4%)	104 (100%)	3.12	1.249
MI 4	Teachers are satisfied with monetary benefits such as other allowances.	12 (11.5%)	24 (23.1%)	23 (22.1%)	30 (28.8%)	15 (14.4%)	104 (100%)	3.12	1.249
MI 5	Teachers are happy with overtime work pay.	9 (8.7%)	25 (24%)	34 (32.7%)	26 (25%)	10 (9.6%)	104 (100%)	3.03	1.11
MI 6	Teachers are happy with the life insurance policy provided by the institution.	29 (27.9%)	27 (26%)	22 (21.2%)	18 (17.3%)	8 (7.7%)	104 (100%)	2.51	1.277
MI 7	Teachers are happy with the medical claim provided by the institution.	29 (27.9%)	27 (26%)	22 (21.2%)	18 (17.3%)	8 (7.7%)	104 (100%)	2.51	1.277
MI 8	Teachers are satisfied with the death relief fund provided to the deceased's family.	26 (25%)	31 (29.8%)	21 (20.2%)	21 (20.2%)	5 (4.8%)	104 (100%)	2.5	1.207
MI 9	Teachers are happy with the gratuity policy in my institution.	13 (12.5%)	30 (28.8%)	29 (27.9%)	24 (23.1%)	8 (7.7%)	104 (100%)	2.85	1.147
NMI 10	Teachers are satisfied with non-monetary benefits such as job security.	15 (14.4%)	24 (23.1%)	32 (30.8%)	24 (23.1%)	9 (8.7%)	104 (100%)	2.88	1.177
NMI 11	Teachers are satisfied with non-monetary benefits such as recognition and status.	15 (14.4%)	24 (23.1%)	32 (30.8%)	24 (23.1%)	9 (8.7%)	104 (100%)	2.88	1.177
NMI 12	Teachers are satisfied with non-monetary benefits such as recreational activities.	15 (14.4%)	24 (23.1%)	32 (30.8%)	24 (23.1%)	9 (8.7%)	104 (100%)	2.88	1.177
NMI 13	Teachers are satisfied with the transport facilities in my institution.	7 (6.7%)	20 (19.2%)	35 (33.7%)	29 (27.9%)	13 (12.5%)	104 (100%)	3.2	1.101
NMI 14	Teachers are satisfied with the canteen facilities in my institution.	7 (6.7%)	20 (19.2%)	35 (33.7%)	29 (27.9%)	13 (12.5%)	104 (100%)	3.2	1.101
NMI 15	Teachers are satisfied with the grievance handling procedure in my institution.	5 (4.8%)	23 (22.1%)	43 (41.3%)	23 (22.1%)	10 (9.6%)	104 (100%)	3.1	1.01
NMI 16	Teachers are happy with the workload and daily working hours in my institution.	7 (6.7%)	21 (20.2%)	37 (35.6%)	28 (26.9%)	11 (10.6%)	104 (100%)	3.14	1.074
NMI 17	Teachers are satisfied with the ventilation and lighting facilities available in my institution.	6 (5.8%)	14 (13.5%)	22 (21.2%)	32 (30.8%)	30 (28.8%)	104 (100%)	3.63	1.199
NMI 18	Teachers are satisfied with the drinking water facilities in my institution.	5 (4.8%)	14 (13.5%)	26 (25%)	26 (25%)	33 (31.7%)	104 (100%)	3.65	1.197
NMI 19	There is a sufficient number of toilets, urinals, and washing facilities in my institution.	5 (4.8%)	12 (11.5)	20 (19.2%)	39 (37.5%)	28 (26.9%)	104 (100%)	3.7	1.131
NMI 20	The process of determination of financial and non-financial rewards is in line with moral and ethical standards.	8 (7.7%)	26 (25%)	37 (35.6%)	26 (25%)	7 (6.7%)	104 (100%)	2.98	1.043
NMI 21	The promotion/ career development process in my organization is satisfactory.	9 (8.7%)	33 (31.7%)	30 (28.8%)	29 (27.9%)	3 (2.9%)	104 (100%)	2.85	1.022

Valid N (listwise): 104

Respondents' Perception of Job Performance

Table 4 displayed the perception of respondents regarding various aspects of job performance of teachers as well as the mean, standard deviation, and the number of cases involved in the analysis of each item. Out of 104 cases, all cases (100% of total cases) were found to have no missing responses. The mean values of all the statements regarding job performance of teachers were more than 3 except PoT_20 and PoT_22 which were negative questions. A mean value of more than 3 indicated that respondents were positive towards these aspects.

Table 4

Respondents' Perception of Job Performance of Teachers

	Items	SDA	DA	U	A	SA	Total	Mean	Std. Deviation
PoT 1	The teachers have acquired additional degrees after the appointment.	2 (1.9%)	14 (13.5%)	32 (30.8%)	40 (38.5%)	16 (15.4%)	104 (100%)	3.52	0.975
PoT 2	The teachers are providing reading materials to their students.	nil (0%)	13 (12.5%)	28 (26.9%)	41 (39.4%)	22 (21.2%)	104 (100%)	3.69	0.946
PoT 3	The teachers have adopted innovative teaching-learning methods.	3 (2.9%)	7 (6.7%)	41 (39.4%)	34 (32.7%)	19 (18.3%)	104 (100%)	3.57	0.963
PoT 4	The teachers have published books or college /national /international level papers.	4 (3.8%)	22 (21.2%)	26 (25%)	37 (35.6%)	15 (14.4%)	104 (100%)	3.36	1.088
PoT 5	The teachers guide project work/ thesis of Bachelor/ Masters level students independently.	6 (5.8%)	10 (9.6%)	18 (17.3%)	43 (41.3%)	27 (26%)	104 (100%)	3.72	1.127
PoT 6	The teachers finish the assigned course timely.	2 (1.9%)	7 (6.7%)	16 (15.4%)	36 (34.6%)	30 (28.8%)	104 (100%)	3.72	1.11
PoT 7	The teachers set question papers/ evaluate the exam papers systematically.	2 (1.9%)	7 (6.7%)	16 (15.4%)	44 (42.3%)	35 (33.7%)	104 (100%)	3.99	.97
PoT 8	The teachers check the exam papers timely.	3 (2.9%)	17 (16.3%)	21 (20.2%)	31 (29.8%)	32 (30.8%)	104 (100%)	3.69	1.158
PoT 9	The teachers are invited as guest lecturers or subject experts by other institutions.	7 (6.7%)	20 (19.2%)	24 (23.1%)	36 (34.6%)	17 (16.3%)	104 (100%)	3.35	1.164
PoT 10	The teachers attend their classes timely.	1 (1%)	7 (6.7%)	19 (18.3%)	55 (52.9%)	22 (21.2%)	104 (100%)	3.87	0.86
PoT 11	There is a reduction in the absenteeism of teachers.	1 (1%)	13 (12.5%)	27 (26%)	47 (45.2%)	16 (15.4%)	104 (100%)	3.62	0.928
PoT 12	I take the initiative to solve work-related problems.	1 (1%)	10 (9.6%)	25 (24%)	47 (45.2%)	21 (20.2%)	104 (100%)	3.74	0.924
PoT 13	I am confident that I can deal efficiently with unexpected events.	2 (1.9%)	11 (10.6%)	25 (24%)	41 (39.4%)	25 (24%)	104 (100%)	3.73	1.007
PoT 14	I am enthusiastic about my job.	3 (2.9%)	7 (6.7%)	15 (14.4%)	49 (47.1%)	30 (28.8%)	104 (100%)	3.92	0.982
PoT 15	At my job, I am very resilient (tough/ strong) mentally.	2 (1.9%)	8 (7.7%)	17 (16.3%)	41 (39.4%)	36 (34.6%)	104 (100%)	3.97	1
PoT 16	There is a reduction in work-related complaints against me..	4 (3.8%)	17 (16.3%)	26 (25%)	30 (28.8%)	27 (26%)	104 (100%)	3.57	1.156
PoT 17	Teaching is mostly dictating notes or reading from texts.	13 (12.5%)	20 (19.2%)	34 (32.7%)	26 (25%)	11 (10.6%)	104 (100%)	3.02	1.174
PoT 18	Most teachers have strong command over their subjects.	3 (2.9%)	7 (6.7%)	24 (23.1%)	47 (45.2%)	23 (22.1%)	104 (100%)	3.77	0.968
PoT 19	Teachers care whether students understand their lessons or not.	3 (2.9%)	9 (8.7%)	27 (26%)	43 (41.3%)	22 (21.2%)	104 (100%)	3.69	0.996
PoT 20	Examination results of students are weak.	5 (4.8%)	30 (28.8%)	37 (35.6%)	27 (26%)	5 (4.8%)	104 (100%)	2.97	0.97
PoT 21	Much care is taken in paper setting and evaluating answer sheets by the teachers.	2 (1.9%)	16 (15.4%)	31 (29.8%)	38 (36.5%)	17 (16.3%)	104 (100%)	3.5	1.005
PoT 22	Most teachers do not teach well.	37 (35.6%)	33 (31.7%)	21 (20.2%)	10 (9.6%)	3 (2.9%)	104 (100%)	2.13	1.094

Valid N (listwise): 104

Descriptive Statistics

Descriptive statistics such as mean, standard deviation, skewness, maximum, and minimum were used to establish the central tendency and measure of dispersion of key variables. All the variables were negatively skewed with varying degrees of skewness.

Table 5

Internal Consistency, Correlation Coefficient, and Descriptive Statistics of Summated Scales

Factors	No. of Items	Reliability	Correlation coefficient with job performance	Minimum	Maximum	Mean	Std. Deviation	Skewness	Std. Error
				Statistic	Statistic	Statistic	Statistic	Statistic	
Monetary Incentives	9	0.9	0.385**	9	44	25.8558	8.21013	-0.009	0.237
Non-monetary Incentives	12	0.91	0.504**	12	60	38.1154	9.51066	-0.198	0.237
Mixed Incentives	21	0.94	0.482**	23	98	63.9712	16.50799	-0.164	0.237
Job performance	21	0.935	-	44	104	77.50	13.91584	-0.355	0.237

** . Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.01 level (2-tailed).

Valid N (listwise): 104

Test of Normality

Kolmogorov-Smirnov & Shapiro-Wilk tests had been used for testing the normality assumption of the data. Data can be admitted as normal if p-value > 0.05. The result of the tests was shown as follows:

Table 6

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual	.052	104	.200*	.989	104	.536

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Kolmogorov-Smirnov test, $p = 0.200 > 0.05$ and Shapiro-Wilk, $p = 0.536 > 0.05$, hence normality assumption of the data was accepted.

Test of Multicollinearity

Tolerance and VIF (Variance Inflation Factor) were used for testing the multicollinearity assumption of the data. Data can be admitted as no multicollinear if tolerance value > 0.1 and $VIF < 10$ of independent variables. Monetary Incentives (MI) had tolerance value $0.461 > 0.1$, $VIF = 2.169 > 10$ and Non-Monetary Incentives (NMI) had tolerance value $0.461 > 0.1$, $VIF = 2.169 < 10$. Hence it was concluded that there was no problem with multicollinearity in the data.

Table 7

Collinearity statistics

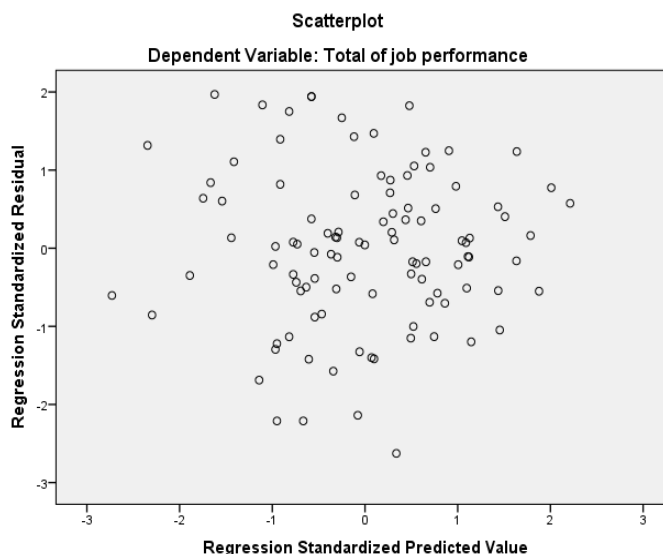
Variables	Tolerance	VIF
MI	0.461	2.169
NMI	0.461	2.169

Test of Homoscedasticity

Visual display of scatter plot of standardized residuals against standardized predicted values had been used for testing homoscedasticity of the data as in Figure 2.

Figure 2

Scatter Plot of Standardized Residuals against Standardized Predicted Values



The distributional pattern of standardized residuals against standardized predicted values was random. This suggested that there was no evidence against the assumption of homogeneity of error terms.

Assessment of the Outlying Observation

The assessment of outlying observations due to dependent variable (aka outliers) is carried out by assessing the studentized deleted residuals. The assessment of outlying observations due to independent variables (aka high leverage points) is carried out by assessing the centered leverage statistics.

Table 8

Residuals Statistics (Edited)

	Minimum	Maximum	Mean	Std. Deviation	N
Standardized Residual	-2.627	1.968	0.000	0.990	104
Studentized Deleted Residual	-2.732	2.040	0.001	1.013	104
Cook's Distance	0.000	0.056	0.009	0.013	104
Centered Leverage Value	0.000	0.087	0.019	0.017	104

The minimum value of studentized deleted residual was -2.732 and its absolute value was less than 3. According to a rule of thumb, there was no any outlier value present in the data.

The maximum value of centered leverage value was 0.087 and it was greater than 0.05769 ($3k/n = 6/104$). According to a rule of thumb, there was at least one unusual value that could be considered a high leverage point present in the model. All the high leverage values as well as outliers present in the model were not influential points (data points that may not change the results of the regression model), since the maximum value of Cook Distance was 0.056 which was far below the value of 1.

Correlation of Incentives with Job Performance of Teachers

The Pearson correlation coefficient was computed to assess the relationship between monetary/ non-monetary and mixed incentives (independent variables) and teachers' job performance (dependent variable). There was a positive and significant correlation between monetary incentives and teachers' job performance, $r(102) = 0.385$, $p = 0.000$. The Pearson correlation coefficient (r-value) was 0.385 falling under the coefficient range from +0.21 to + 0.4. Thus, it showed a small but definite association between monetary incentives and teachers' job performance.

A positive and significant relationship was observed between non-monetary incentives and teachers' job performance, with a Pearson correlation coefficient of $r(102) = 0.504$, $p = 0.000$. The r-value of 0.504 lies within the range of +0.41 to +0.7, indicating a moderate association between non-monetary incentives and teachers' job performance.

A positive and significant relationship was identified between mixed incentives and teachers' job performance, with a Pearson correlation coefficient of $r(102) =$

0.482, $p = 0.000$. The r -value of 0.482 falls within the range of +0.41 to +0.7, indicating a moderate association between mixed incentives and teachers' job performance.

Regression Analysis

A simple linear regression analysis was executed to examine the effect of monetary incentives on teachers' job performance. There was a positive and significant effect of monetary incentives on teachers' job performance, $b = 0.653$, Beta = 0.385, $t(103) = 4.217$, $p = 0.001 < 0.01$ as per Table 9.

Table 9

Impact of monetary incentives (MI) on the job performance of teachers (PoT)

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error	Beta		
(Constant)	60.613	4.199		14.434	.000
MI	0.653	0.155	0.385	4.217	.000
R	0.385				
R ²	0.148				
Adjusted R ²	0.14				
F-Value	17.786	($p=0.000$)			

A simple linear regression analysis was executed to examine the effect of non-monetary incentives on teachers' job performance. There was a positive and significant effect of non-monetary incentives on teachers' job performance, $b = 0.737$, Beta = 0.504, $t(103) = 10.051$, $p = 0.001 < 0.01$ as per Table 9.

Table 10

Impact of non-monetary incentives (NMI) on the job performance of teachers (PoT)

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error	Beta		
(Constant)	49.398	4.915		10.051	.000
NMI	0.737	0.125	0.504	5.892	.000
R	0.504				
R ²	0.254				
Adjusted R ²	0.247				
F-Value	34.712	($p=0.000$)			

A multiple regression analysis was executed to examine the joint effect of monetary and non-monetary incentives on teachers' job performance.

Table 11

Impact of monetary incentives (MI) and non-monetary incentives (NMI) on the job performance of teachers (PoT)

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error	Beta		
(Constant)	49.302	4.951		9.959	.000
MI	0.057	0.214	0.033	0.264	.793
NMI	0.701	0.185	0.479	3.788	0.000
R	0.504				
R ²	0.254				
Adjusted R ²	0.24				
F-Value	17.232	(p=0.000)			

There was no significant effect of monetary incentives on teachers' job performance ($b_1 = 0.057$, $Beta = 0.033$, $t(102) = 0.264$, $p = 0.793 > 0.05$). whereas there was a significant and positive effect of non-monetary incentives on teachers' job performance ($b_2 = 0.701$, $Beta = 0.479$, $t(102) = 3.788$, $p = 0.001 < 0.01$) as per Table 9. Inference can be withdrawn from the results that there was a powerful effect of non-monetary incentives on teachers' job performance in comparison to monetary incentives. It indicated that teachers are dissatisfied with their financial incentives. HEIs in Nepal follow the incentive terms set by Tribhuvan University which do not compensate for the hard effort made by teachers while performing their job (i.e. knowledge creation, course dissemination, students' evaluation, and meeting several criteria set by UGC Nepal), and teachers have become irritated that their hard work yielded so little. Furthermore, monetary incentives did not motivate the teachers as there was no marginal difference in pay increases between a high performer and an average performer, and a high-skilled and a low-skilled should be significant.

The results agree with Herzberg's two-factor theory which supports motivation factors (which mostly include non-monetary factors) in comparison to hygiene factors (which mostly include monetary factors) for the employees' better satisfaction and better performance. The result is in line with the findings of other studies such as (Harunavamwe & Kanengoni, 2013) which found that non-monetary rewards were given the number one ranking by the lower level employees especially. However, the result is against the findings of (Gayashri & Rathika, 2020) who found that financial incentive awards motivate them more than non-financial incentives.

Conclusion

Monetary and non-monetary incentives play crucial roles in enhancing teachers' job performance, satisfaction, and retention in higher education institutions. A balanced approach combining both incentives can effectively motivate educators, align their efforts with institutional goals, and foster a positive and productive work environment. This study indicated that non-monetary incentives are more influencing factors for enhancing teachers' job performance in HEIs. Further inference can be drawn that the teachers are dissatisfied with their financial incentives. HEIs in Nepal follow the incentive terms set by Tribhuvan University which do not compensate for the hard effort made by teachers while performing their job (i.e. knowledge creation, course dissemination, students' evaluation, and meeting several criteria set by UGC Nepal), and teachers have become irritated that their hard work yielded so little. Furthermore, monetary incentives do not motivate the teachers as there is no marginal difference in pay between a high performer and a low performer. This study has delimitation for a lower sample size. The study does not assess the mediating effect of job satisfaction between incentives and teachers' job performance in QAA-certified colleges in Nepal. So future studies in this regard will be useful. The inferences drawn by this study will be helpful to all the stakeholders such as UGC Nepal, HEIs, teachers, and policymakers who are directly or indirectly involved in the reform of higher education.

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Analysis of Percentage of Element of Mixed Surfactants in Mixed Solvent Media

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Abstract

Two surfactants interact with each other to form the mixed surfactant. Cationic surfactant cetyl pyridinium chloride (CPC) interacts with anionic surfactant sodium dodecyl sulphate (SDS) both at the air/water interface and in bulk, forming the ion-pair amphiphile (IPA) through the coulombic interaction between the binary surfactants with opposite charges. Energy-dispersive X-ray Spectroscopy (EDX) was used to identify and quantify the elements in the mixed surfactants and determine purity by calculating the percentage composition. The percentage composition of C, N, O, and S in the sample prepared in 10% methanol-water system was 32.0, 56.0, 13.5, and 2.5 respectively percent by weight.

Keywords: CPC, EDX, Mixed surfactant, SDS

Introduction

A surfactant (short for "surface-active agent") is a substance that reduces the surface tension between

two liquids or between a liquid and a solid (Zhu et al., 2017). Surfactants' amphiphilic nature allows for easier mixing of non-mixing substances, such as oil and water (Yadav et al., 2024a). Surfactants are classified based on the charge of their hydrophilic (water-attracting) head group. The four main types of surfactants are anionic surfactants, cationic surfactants, nonionic surfactants, and amphoteric (Zwitterionic) surfactants (Kroll et al., 2022).

Anionic surfactants have a negatively charged head group. They are the most common type of surfactant and are known for their excellent cleaning and foaming properties as sodium lauryl sulphate (Ali et al., 2014). Cationic surfactants have a positively charged head group. They are typically used for their antimicrobial and

conditioning properties, although they have weaker cleaning abilities compared to anionic surfactants such as cetyltrimethylammonium bromide, benzalkonium chloride, etc. Nonionic surfactants have no charge on their head group. They are less foaming than anionic surfactants but are very effective at emulsifying and are gentle, making them ideal for use in sensitive applications such as lauryl alcohol ethoxylate. Amphoteric (Zwitterionic) surfactants can carry both positive and negative charges, depending on the pH of the solution. They are mild and are often used in personal care products such as cocamidopropyl betaine (Lone et al., 2021).

Mixed surfactant refers to a combination of two or more different surfactant types that are blended to optimize their individual properties. When combined, the surfactants can work synergistically, resulting in improved performance compared to using a single surfactant. These blends are widely used in various applications to enhance characteristics such as cleaning power, foam formation, emulsification, or mildness (Bhattacharai et al., 2013).

The combination of different surfactants can produce stronger effects than each surfactant alone. For instance, an anionic surfactant (which cleans effectively but may be harsh) can be combined with a nonionic or amphoteric surfactant (which is gentler) to balance performance and mildness. Mixed surfactants can have synergistic benefits, such as boosting surface activity, lowering surface tension, and increasing foamability (Bhattacharai et al., 2017; Yadav et al., 2024b). Mixed surfactants can be categorized based on the types of individual surfactants that are combined to achieve synergistic effects. These combinations typically involve mixing surfactants from different classes—anionic, cationic, nonionic, and amphoteric—to optimize performance (Sachin et al., 2019).

In this study, we discuss and study the anionic + cationic type of mixed surfactants. Anionic + cationic surfactants are incompatible due to their opposite charges, which can lead to precipitation or reduced performance. However, under carefully controlled conditions, such mixtures can provide unique benefits such as improved emulsification or enhanced antimicrobial activity. These mixtures are less common in mainstream consumer products but can be found in specialized formulations like emulsions, disinfectants, or conditioning agents (Herrington et al., 1993). Such as sodium stearate (anionic) + quaternary ammonium compounds (cationic) which are used in certain emulsions and fabric softeners whereas alkylbenzene sulfonates + cetyltrimethylammonium bromide sometimes used in industrial or laboratory applications. In applications where excess foam can be problematic (e.g., industrial cleaning or wastewater treatment), a mixed surfactant system allows better control over foam production and stability (Bhattacharai, 2015). Mixed surfactants are more effective at stabilizing emulsions, such as oil-in-water

or water-in-oil systems, which are common in cosmetics, food products, and pharmaceuticals.

Sodium dodecyl sulphate is an anionic surfactant (Niraula et al., 2022). There are many applications for sodium dodecyl sulphate (SDS), including cleaning products, hygiene products, and biochemical research. Cetylpyridinium chloride (CPC) is a cationic surfactant. Combining CPC surfactant with chlorhexidine, can overcome its clinical limitations or drawbacks without changing or reducing the antimicrobial activity (Al-Sada & Al-Gharrawi, 2024).

SDS and CPC can be used to create coacervates, which are colloidal systems formed by the electrostatic interaction of oppositely charged surfactants. These coacervates can encapsulate active ingredients for delivery in various industries such as food, pharmaceuticals, and cosmetics. It has been shown that cetyl pyridinium chloride (CPC) interacts with sodium dodecyl sulphate (SDS) both at the air/water interface and in bulk, forming the 'catanionic coacervate' or ion-pair amphiphile (IPA) through the coulombic interaction between the binary surfactants with opposite charges. A ternary phase behavior study of the system CPC/SDS/H₂O was conducted (Maiti et al., 2010). SDS is anionic (negatively charged) due to its sulphate group. CPC is cationic (positively charged) because of its quaternary ammonium group. When mixed, the negatively charged SDS molecules can interact with the positively charged CPC molecules, leading to ionic neutralization. This can result in precipitation (Kume et al., 2024).

Energy-dispersive X-ray Spectroscopy (EDX) is a powerful analytical technique used to determine the elemental composition of a sample. When applied to a mixed surfactant system like sodium dodecyl sulphate (SDS) and cetylpyridinium chloride (CPC), EDX provides insights into the chemical elements present and how they are distributed within the sample (Scimeca et al., 2018). EDX displays the X-rays collected during any one analysis period at mid-energy (1-20 keV) simultaneously (Morgan, 1985). An X-ray spectrum shows the energy of the rays as a histogram plot. Both qualitative and quantitative data are contained in the spectrum of EDX microanalysis. An element is identified by the position and energy of a peak in the spectrum; the area under the peak is proportional to the number of atoms of the element. An electron beam can also produce X-rays when it is slowed by the electrostatic fields of atomic nuclei. There is a continuous radiation of X-rays below the peaks of this spectrum. Analyzing a spectrum qualitatively, i.e. identifying elements, is usually accomplished with software provided by the manufacturer. The EDX technique is conventionally used for elemental analysis of samples' surfaces. In elemental analysis, this method has some limitations. X-ray spectrometry only identifies elements and cannot discriminate between ionic and nonionic species. Furthermore, the EDX requires that all samples be examined under nearly vacuum

conditions, which has major consequences for specimen preparation because electrons and X-rays are strongly absorbed by air molecules. In general, X-ray detection is not affected by the chemical state of elements, but rather by inter-element interference, known in X-ray spectrometry as peak overlap, which causes major problems in elemental analysis. As a result, it is possible to identify atoms with an atomic number greater than 10. The minimum detectable elemental concentration, which necessitates some signal averaging, is around 0.1 mmol per kg of dry specimen (10 ppm), with spatial resolution ranging from around 10 nm to a few micrometers (Pivovarova et al., 2013). To reduce the detection limit, more counts are required, which can be obtained by increasing the counting time and/or beam current.

The EDX microanalysis enabled elemental analysis on several isotopes of calcification and provided further information on the relationship between calcification and disease (Scimeca et al., 2018). Furthermore, EDX enabled tremendous progress in understanding the molecular processes and effects of calcification. For example, Sonou et al. reported for the first time on the reliable assessment of the chemical composition of aortic medial calcification using the SEM-EDX (Sonou et al., 2015). A study examined the role of CPC in inhibiting mild steel corrosion in acidic media. As part of the study, weight loss and potentiodynamic polarization methods were employed to measure inhibition efficiency, as well as FTIR, FESEM, EDX, and AFM, to observe changes on the surface (Yadav et al., 2024c). With the help of the EDX spectrum of a nanostructured surfactant such as sodium dodecyl sulphate (SDS) and cetyltrimethylammonium bromide (CTAB) activated mixed metal oxide nanomaterial (zinc oxide/nickel oxide), the elemental composition was revealed (Chellamuthu et al., 2024). There was no study of EDX of mixed surfactant (CPC-SDS).

It is our objective to observe the analysis of EDX in 10% methanol-water mixed solvent media with a mixture of 0.01 M sodium dodecyl sulphate (SDS) and 0.01M cetyl pyridinium chloride.

Materials and Methods

The materials used in this study were sodium dodecyl sulphate (SDS) and cetylpyridinium chloride (CPC). Sodium dodecyl sulphate (SDS) and cetylpyridinium chloride (CPC) were purchased from HIMEDIA, India. EDX (Model no: Elect Super Company, USA) was used for the characterization technique.

The solutions of 0.01 M SDS and 0.01 M CPC were prepared separately in 250 ml volumetric flasks using 10% methanol-water mixed solvent media. The accurate weight of 0.072 gm of SDS and 0.895 gm of CPC was weighed using a four-digit weight balance. Then these two solutions were mixed by adding equal volumes of

each other. The precipitate was obtained from cetyl pyridinium chloride and sodium dodecyl sulphate. The precipitated material was further separated by filtration. The remaining residue was washed repeatedly until NaCl was removed from the sediment and tested with AgNO₃ solution; the residue was dried for 24 h at 60 °C temperature in the oven. White powder was obtained from the mixture of CPC and SDS when the weight was reduced.

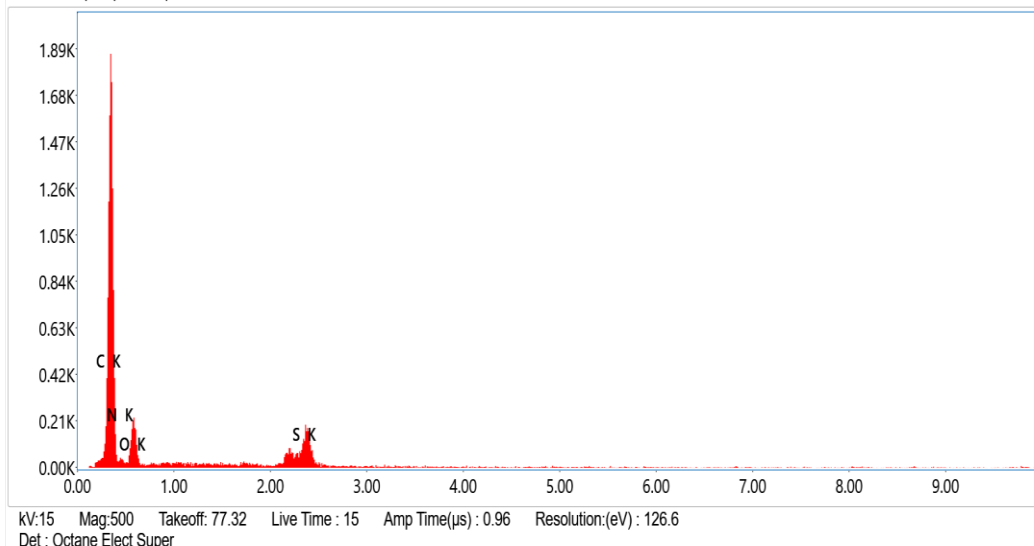
Results and Discussion

To analyze the percentage of the element of SDS-CPC in 10% methanol-water mixed solvent media, 0.01 M sodium dodecyl sulphate (SDS) and 0.01M cetylpyridinium chloride were mixed with concentrations of SDS and CPC above the critical micelle concentrations of 0.0082 M SDS (Niraula et al., 2018) and 0.0012 M CPC (Shahi et al., 2024) have taken in our research work. The reason for taking 0.01M concentration for both SDS and CPC surfactants is to make precipitation in 10% methanol.

EDX analysis is applied to the SDS + CPC mixed surfactant system in 10% methanol as shown in Figure 1. The **EDX spectrum** shows peaks corresponding to different elements in the SDS + CPC system. The key elements that EDX detect include Sulfur (S) from the sulphate group in SDS, Sodium (Na) from the sodium cation in SDS, Chlorine (Cl) from the chloride ion in CPC, Nitrogen (N) from the quaternary ammonium group in CPC, Carbon (C) and Oxygen (O) from the alkyl chains and functional groups in both surfactants (Jia et al., 2019). EDX can provide a quantitative analysis of the relative abundance of these elements in the SDS-CPC mixture. This is important for confirming the **stoichiometry** of the mixed surfactant system. For example, we can determine if the expected ratios of sodium to sulfur (from SDS) or nitrogen to chlorine (from CPC) are correct. It is a feature of EDX that shows the distribution of specific elements across the sample. This is useful in analyzing how SDS and CPC interact at the molecular level. If the surfactants are forming separate phases or precipitating due to charge neutralization, the elemental maps may show regions of higher concentrations of sulfur and sodium (indicating SDS-rich areas) and regions with higher concentrations of nitrogen and chlorine (indicating CPC-rich areas). When SDS and CPC interact (due to their opposite charges), they can form ionic complexes. EDX can help confirm the formation of these complexes by showing the co-localization of elements such as sulfur (from SDS) and nitrogen or chlorine (from CPC). Precipitation of these ionic complexes may also be visible in the elemental maps, where the mixed surfactants form solid particles with a distinct elemental composition.

Figure 1*EDX analysis of CPC+SDS in 10% methanol*

06-11-2023 | S2 | Area 1 | Selected Area 1



In Figure 1, the X-axis is the number of elements present in the sample and the Y-axis is the percentage of that element which helps to compare for other elements. EDAX APEX is a software program used for collecting and analyzing EDX data.

Comparing EDX spectra of pure SDS, pure CPC, and the SDS-CPC mixture can show how their elemental composition changes upon mixing. For example, the formation of precipitates may result in a decrease in the signal of free sodium ions (from SDS) or free chloride ions (from CPC), indicating that these ions are now part of a complex structure. The EDX analysis confirms the elements present in both surfactants (e.g., sulfur, sodium, chlorine, nitrogen, carbon, and oxygen). This helps verify the identity of the surfactants and ensures that the correct components are present in the mixture (Loginova et al., 2019). EDX helps confirm the relative ratios of the elements present in SDS and CPC. This is particularly useful for determining whether the mixing of SDS and CPC leads to precipitation or complex formation, as evidenced by changes in the expected ratios (e.g., sodium to sulfur or nitrogen to chlorine). If precipitation occurs due to charge neutralization between SDS and CPC, EDX analysis will show the formation of distinct elemental regions corresponding to the precipitated complexes. These regions will have a co-localization of sulfur (from SDS) and nitrogen or chlorine (from CPC), indicating that the surfactants have formed ionic complexes. EDX can reveal if phase separation occurs, where SDS-rich and CPC-rich areas are observed separately. For instance, sulfur and sodium may dominate one area (SDS phase), while nitrogen

and chlorine dominate another (CPC phase), which can indicate limited miscibility between the two surfactants.

If the SDS and CPC mixture is homogeneous, the elemental distribution maps from EDX will show a uniform distribution of the key elements (S, Na, N, Cl) across the sample. On the other hand, inhomogeneous mixtures will show clustering of certain elements, indicating incomplete mixing or localized complex formation.

EDX can confirm the presence and distribution of both SDS and CPC in a formulated product. This is useful in industries like pharmaceuticals, cosmetics, and cleaning products, where precise control over the surfactant composition is crucial. EDX helps identify the formation of ionic complexes or precipitates due to surfactant interactions. Understanding these interactions is key to controlling product stability and performance, such as in drug delivery systems or emulsions. By analyzing the elemental ratios and distributions, EDX can provide feedback on how to optimize the mixing ratio of SDS and CPC to achieve the desired performance, such as maximum surfactant efficiency or optimal antimicrobial action.

Table 1

Elemental composition data of CPC+SDS in 10% methanol-water system

Element	Weight %	Atomic %	Error %
C K	32.0	34.2	10.8
N K	56.0	54.8	11.4
O K	13.5	12.9	4.5
S K	2.5	1.1	4.9

Table 1 displays the elemental composition data for CPC+SDS in 10% methanol-water mixed solvent media. Carbon (C) appeared at around 32.0 % by weight. Nitrogen (N) appeared at around 56.0%, Oxygen (O) appeared at around 13.5% and Sulphur (S) appeared at around 2.5% by weight. However, the atomic percentage of carbon is 34.2%, nitrogen is 54.8%, oxygen is 12.9%, and sulfur is 1.1% in the analyzed sample of CPC+SDS mixture which was prepared in 10% methanol. The percentage of error provided by the EDX instrument. It suggests that it is a variation of composition in the sample when the test repeats again and again in the same instrument and same sample.

Conclusions

EDX was used for the identification and quantification of the elements present in the mixed surfactant CPC+SDS to determine the purity of CPC+SDS by calculating the percentage composition. The percentage composition of C, N, O, and S in the sample prepared in 10% methanol-water system is found to be 32.0, 56.0, 13.5, and 2.5 respectively percent by weight. The results revealed that all

elements (C, N, O, S) are present in CPC+SDS. This information is valuable for applications in various industries, including pharmaceuticals, personal care, and materials science. Indeed, EDX analysis could be a powerful technique for investigating heavy metal buildup in tissues and in forensic science as well as investigating the harmful effects and potential drug delivery of NPs.

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Issues and Challenges Associated with Farming of Pangasius in Nepal

Praveen Kumar Singh¹

Abstract

This paper's goal is to review the literature on pangasius in several sustainability challenges that must be addressed for long-term viability. To compile this review article, information were collected from secondary sources, such as research journals. A total of 19 research papers were reviewed to ensure comprehensive coverage of the topic. Key issues include reliance on imported Pangasius seeds from Bangladesh and India, which complicates local farming efforts. The availability of feed pellets is also problematic, exacerbated by inadequate market infrastructure and poorly managed marketing channels, resulting in high spoilage rates after harvest. Small-scale farmers face significant barriers due to the high initial investment required for infrastructure such as ponds and water supply systems. Environmental issues, including water pollution, improper waste management, and fluctuating water parameters, can negatively impact fish health. Common challenges include low dissolved oxygen levels, leading to stress and disease, and high biochemical oxygen demand (BOD), indicating organic pollution. Future advancements

should prioritize Recirculating Aquaculture Systems (RAS) and Integrated Multi-Trophic Aquaculture (IMTA) to boost environmental sustainability and reduce water use. Additionally, Biofloc technology can improve water quality and lower feed costs. Further research and policy support are needed to address the challenges and enhance the positive impacts of Pangasius farming in local societies. Addressing these challenges through research, policy support, and capacity building is crucial for the future of Pangasius farming in Nepal.

Keywords: Challenges, Environment, Issues, Pangasius, Sustainable

Introduction

One of the agricultural subsectors in Nepal that is expanding at the fastest rate is aquaculture. Because the land is landlocked (Chaudhary et al., 2023). Presently, the nation produces 104,623 MT of fish, with 75% coming from fish farming and 25% from fish caught by fishermen (Pathak et al., 2023). The industry has a significant

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part in the economy of South Asia, accounting for 98% of the physical export commodities in the Maldives, which make up 6% of the nation's GDP, 24.41% of Bangladesh's agricultural GDP, 5.23% in India, 4.2% in Nepal, and other nations (Sharma et al., 2018). The phrase "Thai Pangas" describes cultivated pangasius, which were brought to Bangladesh in 1990 by the Ministry of Fisheries and Livestock after being initially imported into Thailand. In 1993, this species was successfully bred in hatcheries in Bangladesh. The fish became more popular than other species because of its large size, mouthwatering flavor, and quick growth, all of which were attained by extensive artificial reproduction throughout the nation (Haider et al., 2023).

Pangasius farming is one of the forms of aquaculture that is expanding the fastest in the world. It has been demonstrated that Pangasius are especially versatile for intense manufacturing systems. This particular species of catfish is indigenous to Vietnam's Mekong River, although it has been introduced as an aquaculture species throughout the region. A highly migratory species of riverine fish, *Pangasianodon hypophthalmus* travels hundreds of kilometers from upstream to downstream during its migrations (Gurung et al., 2017). Basa is the favored type of imported Pangasius. The product is now being sold in more than 100 countries around the world because of its gentle taste, lighter meat color, and flaky texture when cooked. Pangasius is a species with a high production rate, but it is not selling for a good price in the market (Kumar et al., 2022). In Nepal, intensive aquaculture systems, pangasius are typically raised solely on additional feed. This particular fish holds significance in Nepal's aquaculture due to its rapid growth, ability to be produced year-round, and high productivity (Chaudhary et al., 2023). Pond fish farming in the terai region accounts for the majority of aquaculture production. Bara, Dhanusha, Saptari, Rupandehi, Mahottari, and Chitwan are the main fish-producing regions in Nepal's terai region. There are seven species of carp included in the cultured species. Additionally, Pangasius (*Pangasius hypophthalmus*) is also farmed in the country. The larger ponds and more productive fish raised in them have led to an increase in the nation's fish production (Husen, 2019). Moreover, the fish production mainly comes from aquaculture in the Terai region. There are 44,722 ponds spread over 11,895.31 hectares in Nepal, with an average productivity of 4912 kg per hectare. The largest production of pond aquaculture comes from Madhesh Province (Subedi & Shrestha, 2020). The demand for fish has increased as a result of increased knowledge of its health benefits. Location, input costs, and market accessibility can all affect fish farming's profitability and production costs (Poudel et al., 2022). Over the last ten years, there has been a notable increase in Pangasius farming in Nepal. Pangasius is a valuable source of animal protein. Approximately 92 kcal of energy, 15g of protein, 3.5g of fat, and 80mg of cholesterol are provided by every 100g of Pangasius. With this nutritional composition, the

production of Pangasius can help fulfill the increasing need for fish within the country and combat protein deficiencies (Haider et al., 2023). Moreover, fish production per person in Nepal lags significantly behind that of most other countries (Gurung, 2014) and it is brought on by exotic species, parasites, overfishing, illegal fishing practices, and habitat degradation (Khanal et al., 2020). Nevertheless, there aren't many publications on Pangasius farming in Nepal, and research on the problems and difficulties with fish survival hasn't gotten enough attention there. In order to understand practices and solutions over issues and challenges on fish will enhance fish farming successfully. Consequently, this study focusing on Pangasius farming will help to provide necessary information for all the producers of Nepal. This study will also support to guide the decision making of producers and which will be crucial for ensuring the long-term viability of fish farming in Nepal. If farmers with limited resources perceive the potential for profit from fish farming, they may engage in fish production as an agro-business. The farmers will be aware of potential investment opportunities as well as the fish species that are flourishing in Nepal. Important information regarding fish farming in Nepal may be gathered by learners who are interested in undertaking research. At present, Pangasius farming is a significant issue. Thus, this review was conducted to analyze environmental sustainability issues, economic sustainability issues and sustainable practices and solutions comprehensively for sustainable Pangasius farming in Nepal.

Results and Discussion

Issues with Economic Sustainability

Price fluctuations and market access

The effective and profitable distribution of fishery products now depends on fish marketing. However, Nepal hasn't been able to witness a consistent increase in fish commercialization. Due to a lack of suitable storage facilities in the market, whatever the farmers produce is sold as soon as it is harvested. As a result, producers are compelled to sell their fish products at unfairly low prices (Khanal et al., 2020). Nepal's main problems is the large-scale importation of seed from Bangladesh and India for high-yielding species like African catfish and pangas (Ranjan, 2019). Similar findings were reported that the main obstacle to pangasius fish farming is the availability of fish seed, which is still entirely dependent on India (Khanal et al., 2019). However, there may be illness with seed obtained from natural breeding areas because the majority of laborers are not well-versed in the scientific data on hatchery operations (Smrity et al., 2016). The study revealed that fish marketing system is not systematic due to lack of sanitation and cold storage facilities. Similar results were found, indicating that Nepal's marketing system is not very organized because there are no roads linking fish-producing regions, no

cold storage facilities to hold the harvest and control supply, and no insulated vehicles to keep fish from spoiling during market sales (Husen, 2019). This finding brought attention to the volatility of fish prices in the fish market. The main factors impeding a profitable and competitive market are a scarcity of fish seeds, inadequate marketing infrastructure, poor postharvest management, poorly managed marketing channels, intense competition from Indian fish, and poorly designed ponds. Inadequate local infrastructure makes it difficult to regulate trade and increase demand for produced fish in both home and foreign markets.

High Beginning Cost

Pangasius aquaculture has great returns but requires substantial running expenditures (Khanal et al., 2019). *Pangasius hypophthalmus* is similar to with a recirculation system, brood stock takes care of everything from spawning to feed management, water quality control, pond preparation, brood stock maintenance, and overall stock selection (Wardani et al., 2021). Establishing a Pangasius farm requires substantial initial capital investment in infrastructure, including ponds, water supply systems, and feed storage facilities. The reason for small-scale farmers, securing this investment can be a significant barrier.

Feed Price

Pellet feed is used to raise pangasius. Feed accounts for 65–85% of the total production costs in this fishery. Instead of using domestic feed, pangasius should be fed industrially produced pellet feed based on size for two months in the production pond. However, if pellet feed is provided to the fish during its growth, the fish will produce more. The supply of feed might be a challenge for small farms (Gurung, 2016). New technology and management approaches for feed production are not widely adopted because of inadequate expansion and information distribution networks (FAO, 2016). Feed is one of the major cost components in aquaculture. The major study was due to lack of availability of fish meal within the country. The rising prices of commercial feeds, driven by the increasing demand for fishmeal and fish oil, can squeeze profit margins. The lack of technical innovation, low funding availability, insufficient training, and ignorance of feed formulation and processing are some of the issues limiting the small-scale industrial industry. Developing cost-effective and sustainable feed alternatives is essential to ensure economic viability.

Insufficient Economic Availability

Due to their lack of access to finance and financial services, rural communities are frequently unable to make the essential investments in technology and infrastructure. This budgetary restriction may make it more difficult to start sustainable practices and have an impact on the sector's overall productivity.

Challenges of Environmental Sustainability

Sources of oxygen in water

Oxygen is mainly comes from air and photosynthetic plankton. It is less soluble in water, and availability drops with high temperature, salinity, low pressure, humidity and plankton blooms. Algal scums block sunlight, causing anoxia in deeper waters, leading to fish death (Verma et al., 2022). Similar findings were reported that eutrophication may arise from the presence of algal blooms. The dead algae's release of different toxic gasses created a challenging environment for the species being raised (Anka et al., 2014). Algal blooms in ponds can be a serious problem for fish farming. Low dissolved oxygen levels caused by algae's nighttime oxygen consumption can stress or even kill fish. The probiotic is crucial to the growth, survival, and resistance to disease of the aquatic animal because it maintains appropriate parameters for the quality of the soil and water during the culture of *Pangasius hypophthalmus* (Bazar et al., 2022). The growth of pangasius is good if maintained quality of the water has water temperature: 25 to 30 degrees Celsius; water depth: 1.5 to 2 meters; water pH: 6.5 to 7.5; dissolved oxygen in water: 1 ppm. It is 14 degree centigrade in this fish. Compared to other carp species, this species of fish can survive on less oxygen because it can absorb oxygen from the air (Gurung, 2016). DO should be at least 5 ppm or higher in the fish pond. Summer time is when oxygen deficiency is most frequently seen. DO depletion is also caused by prolonged overcast weather that collapses phytoplankton blooms. Supersaturation levels may occasionally be reached by the dissolved oxygen content. This could result in gas bubble illness (Gupta, 2016). The study's main goal was to gain a better understanding of dissolved oxygen for Nepal's pangasius production. Water will have less dissolved oxygen and more nitrogen compounds as a result. The high concentrations of nitrogen compounds in the rearing media, such as ammonia (NH₃), nitrate (NO₃), and nitrite (NO₂), have an adverse effect on fish health and appetite, which can impede fish growth and survival. Farmers will have a better understanding of dissolved oxygen and be more motivated to participate in fish farming, which will benefit them financially.

Biochemical oxygen demand (BOD)

The total dissolved oxygen that microorganisms need to biodegrade organic compounds, including food particles or sewage, is measured by the BOD. An excess of phosphate, additional residential and cattle sewage from outside sources, and a high amount of organic matter may lead to higher BOD levels in rural ponds (Verma et al., 2022). When evaluating the quality of water, biochemical oxygen demand (BOD) is a relevant measurement especially for aquaculture environments

like pangasius farming. The following are some consequences of BOD on pangasius:

Oxygen Depletion: A high BOD level is an indication that there is an abundance of living things in the water, and as microorganisms break down this biological material, oxygen levels may drop. Stress from low dissolved oxygen levels may cause pangasius to grow more slowly and die more frequently.

Stress and Health Issues: Elevated BOD can create an environment that is stressful for pangasius. Stress can weaken their immune systems, making them more susceptible to diseases and infections.

Water Quality Deterioration: High BOD levels can lead to poor water quality, which can affect the overall health of the fish. Poor water quality can result in harmful conditions such as increased ammonia and nitrite levels, further impacting fish health.

Behavioral Changes: Pangasius may exhibit altered behavior in response to poor water quality associated with high BOD, such as reduced feeding activity or increased aggression.

Growth Impairment: The combination of low oxygen levels and poor water quality can impair the growth of pangasius, leading to lower yields in aquaculture operations.

Ecosystem Imbalance: High BOD can disrupt the aquatic ecosystem, affecting not only pangasius but also other species and the overall health of the water body.

Carbon-dioxide (CO₂)

The primary source of carbon cycle is free carbon dioxide from animal respiration. It dissolves in water as bicarbonate or carbonates and exists in limestone and the earth's crust. Carbon dioxide forms carbonic acid in water, lowering pH, and harming aquatic life in poorly buffered systems (Verma et al., 2022). Carbon dioxide significantly influences pH, alkalinity, and hardness (Gupta, 2016). Carbon dioxide (CO₂) can have several effects on pangasius, which are commonly known as pangasius. Here are some key impacts:

Oxygen Levels: Increased CO₂ levels can lead to a decrease in dissolved oxygen in the water. Pangasius, like many aquatic species, require adequate oxygen levels for respiration. Fish that have low oxygen levels may experience stress, stunted growth, or even die.

Acidification: Elevated CO₂ levels can cause water acidification, which can affect the physiological processes of pangasius. Acidic conditions can impact their ability to regulate internal pH, potentially leading to metabolic stress.

Behavioral Changes: High CO₂ concentrations can alter the behavior of pangasius, affecting their feeding, schooling, and predator avoidance. This can impact their growth and survival rates.

Growth and Development: Prolonged exposure to high CO₂ levels can negatively affect the growth and development of pangasius. Stress from poor water quality can lead to stunted growth and lower reproductive success.

Disease Susceptibility: Stress from high CO₂ levels can weaken the immune system of pangasius, making them more susceptible to diseases and infections.

Impact on Aquaculture: In aquaculture settings, managing CO₂ levels is crucial for maintaining healthy fish stocks. High CO₂ can lead to poor water quality, affecting the overall productivity of pangasius farming.

Alkalinity

The ability of water to neutralize strong acids is known as alkalinity, and it is defined by the presence of hydroxyl. A pH of greater than 9.0, or excessive alkalinity, can also be detrimental to fish life (Gupta, 2016). The growth and well-being of pangasius in aquaculture are greatly influenced by alkalinity. Some key effects are as follows:

pH Stability: Sufficient alkalinity contributes to steady water pH levels, which are essential for pangasius metabolism.

Nutrient Availability: Higher alkalinity can enhance the availability of essential nutrients, promoting better growth and health of pangasius.

Stress Reduction: Proper alkalinity levels can reduce stress in fish, leading to improved immune responses and overall well-being.

Water Quality: Alkalinity contributes to better water quality by buffering against acidification, which can be harmful to fish.

Growth Rates: Optimal alkalinity levels can lead to improved growth rates and feed conversion efficiency in pangasius.

Hardness

The term "hardness" describes the concentration of several ions in a body of water, such as hydrogen, iron, manganese, strontium, calcium, magnesium, and zinc, along with many other alkaline earth elements. Fish need calcium and magnesium for metabolic reactions including the formation of scales and bones (Verma et al., 2022). It is not necessary to add lime to pond waters if the hardness is 15 ppm or more because this is sufficient for fish growth. Fish experience delayed growth

problems and eventually dies in waters with less than 5 ppm CaCO_3 equivalent (Gupta, 2016). Here are some effects of water hardness on pangasius:

Bone Development: Adequate hardness levels are crucial for the proper development of bones and scales in pangasius. Calcium, a key component of hardness, is essential for skeletal health.

Growth Rates: Optimal water hardness can positively influence growth rates. Fish in water with appropriate hardness levels tend to grow faster and more efficiently.

Reproductive Health: Hardness can affect the reproductive success of pangasius. Proper mineral levels are necessary for successful spawning and the development of eggs.

Stress Resistance: Fish exposed to suitable hardness levels are generally more resilient to stressors in their environment, leading to better overall health and immune responses.

Water Quality: Hardness contributes to the overall quality of water in aquaculture systems. It helps buffer against pH fluctuations, which can be harmful to fish.

Behavioral Aspects: Changes in water hardness can influence the behavior of pangasius, including feeding habits and social interactions.

pH

A solution's acidity is determined by the quantity of hydrogen ions it contains, whereas an alkaline solution is determined by the quantity of hydroxyl ions it contains. Water with a pH of 6.5 to 8.5 is thought to be ideal for aquaculture. While low-calcium and high-humic-acid soils are widespread in freshwater environments, low-pH waters are not. Acidic water (pH 5.0–5.5) may be detrimental to adults, fry, and eggs. Acidity inhibits and negatively impacts the rate at which organic matter decomposes and fixes nitrogen. Its detrimental effects on fish and other biota lead to a decrease in growth, appetite, and toxin tolerance. Fish are more vulnerable to parasite and disease attacks. Copper, heavy metals, and H_2S all have enhanced toxicity (Gupta, 2016). Water quality is a critical factor in aquaculture. Fish excreta, uneaten feed, and organic waste can accumulate in pangasius, or high fish density, ponds used for fish farming. As a result, the water quality may deteriorate and fish death may occur due to increased levels of ammonia, nitrites, and other dangerous compounds. The pH level of water significantly affects pangasius in several ways:

Health and Survival: Optimal pH levels (typically between 6.5 and 8.5) are crucial for the health of pangasius fish. Stress, lowered immunity, and heightened illness vulnerability can result from extremely high or low pH levels.

Growth Rates: pH affects metabolism and nutrient uptake, imbalance slows growth and development.

Behavior: Changes in pH can affect the behavior of pangasius fish, including feeding patterns and social interactions, potentially leading to increased aggression or stress.

Oxygen Availability: The ability to dissolve of oxygen in water, which is essential for pangasius respiration, is affected by pH levels.

Salinity

An abiotic parameter called salinity determines how much salt is dissolved in water (Lingam, 2015). Water with a salinity of 7–10‰ is suitable for pangasius (Gurung et al., 2016). Salinity affects pangasius in several ways:

Growth Rates: Optimal salinity levels promote healthy growth, while extreme salinity can stunt growth or lead to mortality.

Stress Levels: High or fluctuating salinity can increase stress, making fish more susceptible to diseases.

Reproductive Success: Salinity impacts spawning behaviors and fertilization rates, potentially reducing reproductive success.

Oxygen Availability: Elevated salinity can decrease oxygen solubility in water, affecting the fish's respiration.

Resource Management

Efficient management of resources, including water and feed, is essential but can be challenging due to limited availability and high costs. Effective management of natural resources, especially water and feed, is crucial for sustainable farming. Over-extraction of groundwater for pond filling and maintenance can lead to a decline in water tables. Inefficient feed practices can cause wastage and increase production costs, while over-reliance on fishmeal and fish oil in feed can contribute to the depletion of wild fish stocks.

Biodiversity Impact

Nepal's ecosystem is at risk from a variety of sources. The primary threats to natural ecosystems are habitat loss, alteration, and degradation; overexploitation; invasion by alien organisms; and contamination by pollutants. Climate change and its consequences pose a significant threat to biodiversity and ecosystem services. Many species are considered to have a high risk of becoming extinct, including those with limited climatic ranges and habitat needs. Several attempts were undertaken in recent years to improve and expand biodiversity-related research

and education (GoN, 2014). The primary, serious issues are habitat loss, parasites, invasive species, illicit fishing, overfishing, and environmental degradation. Although poorly managed fish ponds can serve as breeding grounds for disease vectors that impact both humans and animals, organized fish ponds can be utilized as a means of managing disease vectors. Therefore, effective agricultural management decreased detrimental consequences on the ecology (Khanal et al., 2020). Without any safety precautions, farmers were discovered to be handling medications and chemicals intended for disease prevention or treatment. Antibiotic resistance would result from this, and it might have a significant negative influence on the ecosystem (Anka et al., 2014). This study aims that introduction of non-native species can impact local biodiversity and disrupt the ecosystem balance. Similarly, a diverse environment supports healthy populations of prey and reduces disease risks, ultimately contributing to the overall health and productivity of pangasius in aquaculture.

Disease and Antibiotic Use

The challenges that Bangladesh's aquaculture is facing are demonstrated by the high concentrations of microcystin producers and fecal coliforms in several of the fish farms (Islam et al., 2021). Numerous bacterial disease outbreaks have increased pressure on farmers to employ a range of pesticides and antibiotics in hatcheries (Lakra, 2012). The study's main goal was to gain a better understanding of disease for Pangasius fish farming. Bacterial disease is due to high stocking densities in this fish farms can facilitate the rapid spread of diseases. To combat these outbreaks, farmers often resort to the use of antibiotics. This fish are susceptible to various diseases, and managing these outbreaks requires proper knowledge, timely intervention, and sometimes expensive treatments. The use of antibiotics to treat these diseases can help manage outbreaks but may also lead to antibiotic resistance, impacting both fish health and human consumers. Overuse of antibiotics can disrupt the aquatic ecosystem and harm beneficial microorganisms, ultimately affecting the sustainability of this fish farming.

Sustainable Practices and Solutions for Pangasius farming

Aquaculture with Integrated Multi-Trophic (IMTA)

Growing species from several trophic levels in the same system is known as IMTA. For example, combining Pangasius farming with aquatic plants or filter-feeding bivalves can help utilize waste nutrients, improve water quality, and increase overall system productivity.

Recirculating Aquaculture Systems (RAS)

RAS technology allows for the continuous recycling of water within the farming system, reducing water usage and minimizing environmental discharge. In terms of sustainability and resource efficiency, RAS provides long-term advantages despite requiring a larger initial investment.

Sustainable Feed Alternatives

Developing sustainable feed alternatives, such as plant-based proteins, insect meals, and algae-based feeds, can reduce reliance on fishmeal and fish oil. These alternatives can help lower feed costs and mitigate the environmental impact of feed production.

Best Management Practices (BMPs)

Implementing BMPs in Pangasius farming can enhance productivity while minimizing environmental impact. BMPs include strategies for water quality management, disease prevention, efficient feed utilization, and waste management.

Certification and Eco-Labeling

Certification programs and eco-labeling schemes, such as the Aquaculture Stewardship Council (ASC) certification, can promote sustainable farming practices and provide market incentives for farmers to adopt environmentally friendly methods.

Community-Based Resource Management

Conflicts can be avoided and the demands of various stakeholders can be balanced by involving local populations in the management of biodiversity. For instance, community-based methods of managing water resources can ensure sustainable use and fair access.

Financial Support and Access to Credit

Training and information sharing with farmers are issues that must be addressed, especially for small-scale farmers who have limited access to the newest advances in technology and management (FAO, 2016). Providing financial support and improving access to credit for small-scale farmers can facilitate investment in sustainable practices.

Capacity Building and Extension Services

Many farmers lack the technical knowledge and skills required for effective Pangasius fish farming, including disease management, optimal feeding practices, and

breeding techniques. Access to high-quality seed (fingerlings) and feed is crucial for successful farming. Inconsistent availability and high costs can hinder production. Strengthening extension services and providing regular training programs can enhance farmers' knowledge and skills. Topics such as sustainable farming practices, disease management, and market access should be included in training curricula.

Policy and Regulatory Frameworks

Developing and enforcing robust policies and regulatory frameworks is essential to ensure the sustainability of Pangasius farming. Policies should address issues such as water use, environmental protection, disease control, and market regulation. There is often a lack of government or non-government extension services to provide training and support to farmers, leading to gaps in knowledge and practice. Inadequate regulatory frameworks and policies can result in issues such as overuse of antibiotics, environmental degradation, and unregulated market practices.

Research and Innovation

New technology and methods that improve the sustainability of Pangasius farming can be developed through research and innovation investments. Collaboratively, government agencies, educational institutions, and the private sector can promote and embrace innovative ideas.

Conclusion

Pangasius farming in Nepal holds significant potential to contribute to the country's aquaculture industry, enhance food security, and generate employment. However, the sector faces numerous challenges, including inadequate access to quality fingerlings, limited technical knowledge among farmers, poor water quality management, and insufficient government support. Additionally, market volatility, lack of infrastructure, and environmental concerns pose critical barriers to sustainable development. Addressing these issues is crucial for unlocking the full potential of Pangasius farming and ensuring it becomes a reliable source of livelihood and nutrition.

Recommendations

1. Establish hatcheries for producing high-quality fingerlings locally.
2. Facilitate access to affordable and high-quality feed to ensure healthy growth of Pangasius.
3. Organize training programs for farmers on advanced farming techniques, water quality management, and disease control.
4. Promote the adoption of modern aquaculture practices to improve productivity.

5. Invest in building cold storage facilities and transportation networks to maintain fish quality and reduce post-harvest losses.
6. Develop accessible marketplaces for Pangasius products to ensure fair prices for farmers.
7. Implement supportive policies, including subsidies for small-scale farmers and soft loans to encourage investment in Pangasius farming.
8. Introduce insurance schemes to protect farmers from losses caused by natural disasters or market fluctuations.
9. Promote eco-friendly farming practices to minimize negative impacts on local ecosystems.
10. Monitor water sources to prevent pollution and ensure sustainable water use.
11. Encourage research on disease-resistant strains and better farming technologies.
12. Collaborate with academic institutions to provide evidence-based solutions to challenges.

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Verbal Elements in Saptariya Tharu

Ram Kumar Bhagat Yadav¹

Abstract

The verb morphology of Tharu shows that the suffixes are attached to the verb to indicate the tense, aspect, mood, and modality. This study attempts to relate and analyze the verbal morphology of Saptariya Tharu language that possesses monosyllabic verb stems to a great extent. The data were collected from both sources: primary and secondary. Two Tharu speakers from Saptari were selected for eliciting the utterances of Tharu and several previous works related to the verbs were also consulted. The results show that the valence adjusting operations have been divided into two types; the valence increasing operations (i.e. causativisation) and the valence decreasing operation (i.e. passivization). Auxiliary verb has been classified into two categories; 'Be' verb as a copula and 'Be' verb as a helping verb. The verbs are negativized by the negative particle. Similarly, different elements are found with the stem verbs for indicating tense, aspect, mood, and

modality. Thus, the Tharu verbs are found having different grammatical bearings including less honorificity and the Tharu children in the schools are often found using less honorific words even in Maithili and Nepali.

Keywords: Modality, Morphology, Valence changing, Saptariya Tharu, Verbs,

Introduction

Nepal is home to numerous languages and dialects because of ethnic diversity and linguistic plurality. Although Nepal is a small country, it represents four language families, i.e. Indo-Aryan, Tibeto-Burman, Austro-Asiatic and Dravidian. Tharu is one of the languages belonging to Indo-Aryan language family of Indo-European language family. Tharus live mainly Terai region stretching from Mechi to Mahakali along the Mahendra High-Way. The total speaker to Tharu is 13, 31, 546 and 5.86% in Nepal (C.B.S. 2021).

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There are different varieties (dialects) in the Tharu language. Noonan (2005) has mentioned that there are seven varieties of Tharu in Nepal, such as *Dangaura Tharu*, *Deukhuri Tharu*, *Kathoria Tharu*, *Kochila Tharu*, *Chitwaniya Tharu*, *Mahotari Tharu* and *Rana Tharu*. According to Ethnologue (Languages of which, 16th edition) within the Tharu language, there are various dialects; *Kochila Tharu*, *Dangaura Tharu*, *Kathoriya Tharu*, *Chitwaniya Tharu* and *Rana Tharu*. This research is based on the variety belonging to Kochila Tharu spoken in Saptari district. Lewis (2009) points out that the Kochila Tharu has also different dialects; *Saptariya*, *Morangiya*, *Sunsariya*, *Udaypur*, *Siraha*, *Dhanusa*, *Mohotari* and *Sarlahi*. Speakers in each district speak a different variety. The total population of Kochila Tharu is 258,000 in Nepal (Lewis 2009:497). Saptariya dialect lies in the southern part in the Sagarmatha Zone of Nepal Situated between Sunsari and Siraha district. There are settlements of the Tharu people in Saptari, i.e., 14.03% (CBS:2021).

Tharu people of Saptari are usually bilingual and some people are also multilingual (i.e. Hindi and Nepali) but not monolingual because of majority of Maithili Speakers or mix society. They use Nepali and Hindi as a lingua-franca and have their own history, culture, social structure, rites, rituals and linguistic heritage; they follow Hindu religion.

Several research works have been done on Tharu people and their culture. However, researches on Tharu language are limited and especially as Saptariya dialect are linguistically very limited. Hodgson (1880) has mentioned that the particular dialect of Tharu is a corrupt form Bhojpuri. Grierson (1903) has mentioned that there is however no such things as a Tharu language. Everywhere the Tharu speak, more or less correctly, the language of Aryan races with whom they are immediately in contact, for instance the Tharus of North Purnea appear to speak a corrupt form of the Eastern Maithili spoken in district. Pokhrel (2050B.S.) has commented that the Tharu language is not a language at all. The Tharus of East speak a dialect of Maithili and from Rautahat to Rupandehi they speak a dialect of Awadhi. Yadava (2050B.S) has mentioned that whether or not the language of the Tharu is a separate language or dialect (of Maithili, Bhojpuri, and Awadhi) is a subject of dispute. Therefore, there is a need to study its speech form together with the feelings of the language Speakers.

Chaudhary (2004) has mentioned that the Tharu language is a language of Indo-European family. It holds fourth position in Nepal and percentage of the Tharu Speakers is 5.90% (C.B.S. (2021)). It is spoken from Mechi to Mahakali in more than thirteen districts. It is one of the most underdeveloped languages of Nepal and remained unstudied for centuries. Therefore, it is on the way of losing its identification.

The present research work tries to analyze the verbal elements of the Tharu language spoken in Saptari in which the analysis focuses on finding out how

different types of morphemes are attached with the stem verbs indicating different grammatical functions. Similarly, the work is more oriented towards the operation of the verbs showing valence changing elements.

Methodology

The study is more descriptive rather than comparative in its nature and the theoretical framework is mainly based on Given (2001) which gives many conceptual ideas on grammatical description on verbal morphology. According to Given, Structures without functions are plainly senseless; functions without structures are down right lame. Besides, Masica (1991), Payne (1997) and Zograph (1982) are very crucial sources of information on Indo-Aryan grammar and also Comrie and Smith (1997) for questionnaire. The data were collected from the two Saptariya Tharu persons using the set of questionnaires and eliciting the required information. Similarly, I consulted the secondary sources; Tharu grammars, research works, etc. for collecting the purposive information related to the verbal compositions.

Results and Interpretation

The verb stem

The infinitive of the Tharu verb ends in *-əb* or *-æb* whether vowel-final stem or consonant-final stem. When the stem of the Tharu verb is removed from the infinitive then we obtain the verb stems:

Table 1

The infinitive of the Tharu verb ends in -əb or -æb

Infinitives	Glosses	Stems
<i>dekhəb</i>	'to see'	dekh
<i>pərhəb</i>	'to read'	pərh
<i>katab</i>	'to cut'	kat
<i>mərəb</i>	'to die'	mər
<i>pitəb</i>	'to beat'	pit
<i>likhəb</i>	'to write'	likh
<i>piəb</i>	'to drink'	pi
<i>ya(ə)b</i>	'to come'	ya

The stems *ya-*, *le-*, *kha-*, and *ja-* which are mentioned above, when these stems are removed from infinitives then remaining stems-final vowels are changed into *-æ*, whether it is ended with *-a* or *-e*. Where *-ə* is changed into *-æ* or vowel decentralized to make infinitives. When the stems *ya-*, *de-*, *le-*, and *he-* are changed into infinitives, the infinitives *-əb* where *-ə* is uttered optionally.

The Tharu primary verb stems exhibit the patterns, CV, VC, CVC, VCVC, and CVCVC which derived causative verb stems such as VCV, CVV, CVCV, VCCV, CVCCV, VCVCCV, and CVCVCCV. Their syllabus structures of stems are illustrated below:

Syllable structures	Stems	Glosses
VC	<i>uth</i>	'arise'
CV	<i>de</i>	'give'
CVC	<i>likh</i>	'write'
VCVC	<i>unət</i>	'roll over'
CVCVC	<i>pəhūc</i>	'arrive'

Most Tharu verb stems show remarkably few morphophonemic alternations, when aspect, tense, mood, or other inflectional affixes are added. However, stem alternations do occur in a few verbs. Such stems alternations are governed by two ways: (i) vowel-final stem and (ii) consonant-final stem. Vowel-final stems are more complex than consonant-final stems.

Tense

Tense is the grammatical expression of the relation of the time of an event to some reference point in time, usually the moment in cause is uttered (Payne, 1997, p. 236). Tense and mood together constitute a category in NIA, in terms of mutual substitutability in a particular slot in the paradigm: a verbal expression may have tense or mood (or neither) but not both (Masica, 1991, p. 279). Tharu verbs conjugate for three tense: past, present and future. If the event proceeds the point of reference, it is past, if it follows the time axis, it is future and if it includes the time axis, it is present.

The past tense

The past tense refers to the event/situation prior to the present situation in question prior to the past situation occupies just a single point to the present moment or indeed the whole time and the use of the past tense only locates the situation in the past, without saying anything about whether the situation continues to the present or into the future, although there is often a conversational implicature that it does not continue to or beyond the present (Comrie 1985:41). The past tense in Tharu is marked differently according to the person and honorific (only in second person) inflections (suffixes) of past tense in Tharu do not agree with the gender, number of subject or noun phrase.

Table 2

The verb pərh 'read' showing its past suffixes

Person	Noun/pronoun	Number		Glosses
		Singular	Plural	
1 st person	<i>həm</i>	<i>pərh-liəi</i>	<i>pərh-liəi</i>	'I read'
2 nd person	<i>tū(NH)</i>	<i>pərh-lihi</i>	<i>pərh-lihi</i>	'You read'
	<i>tū(MH)</i>	<i>pərh-ləhə</i>	<i>pərh-ləhə</i>	'You read'

3 rd person	<i>əpne</i> (H) <i>u</i> <i>chəura</i> <i>chəuri</i>	<i>pərh-lie</i> <i>pərhəl-kəi</i> <i>pərhəl-kəi</i> <i>pərhəl-kəi</i>	<i>pərh-lie</i> <i>pərhəl-kəi</i> <i>pərhəl-kəi</i> <i>pərhəl-kəi</i>	'You read' 'He read' 'The girl read' 'The boy read'
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The table 2 show that the first-person subject *hem* 'I' takes *l-* past tense marker with *-əi* agreement marker with the *pərh* 'read'. The second person subject *tū* 'you NH' takes *l-* past tense marker *l-*with *-he* concord, likewise, the subject *tū* 'you MH' also takes same past tense marker *l-* with *-he* agreement marker and the subject *əpne* 'you H' takes *l-* past tense marker as well but with agreement marker *-əi* with the verb *pərh* 'read'. The third person subject *u/chəuri* takes *k-* past tense marker with *-əi* agreement marker either singular or plural in all the cases.

The future tense

The characterization of the meaning of the future tense is correct, but the controversy surrounds not so much the definition of future tense as whether such category is justified in linguistic theory in the first place, as a tense (Comrie, 1985). There is future subsystem in most NIA language that calls for special remark. The unspecified "old present", on being crowded out of its old role by newer information, was left with a range of vaguely future residual meanings, which are retained in most NIA language as the contingent future ("Simple subjunctive") (Masica, 1991, p. 288). The future tense markers are *b-* and *t-* . where the person and second person (non-honorific and mid-honorific) are marked with *b-* future tense marker and the third person is marked with *t-* future tense marker.

Table 3

The verb kha 'eat' showing future suffixes

Person	Noun/Pronoun	Number		Glosses
		Singular	Plural	
1 st Person	<i>həm</i>	<i>khe-bəi</i>	<i>khe-bəi</i>	'I will eat'
2 nd Person	<i>tū</i> (NH)	<i>khe-bihi</i>	<i>khe-bihi</i>	'You will eat'
	<i>tū</i> (MH)	<i>khe-həhə/hək</i>	<i>kheb-bəhə/hək</i>	'You will eat'
	<i>əpne</i> (H)	<i>khe-həi</i>	<i>khe-bəi</i>	'You will eat'
3 rd Person	<i>u</i>	<i>khe-həi</i>	<i>khe-həi</i>	'He will eat'
	<i>sita</i>	<i>khe-həi</i>	<i>khe-həi</i>	'Sita will eat'
	<i>ram</i>	<i>khe-həi</i>	<i>khe-həi</i>	'Ram will eat'

The table 3 presents that the first person subject *həm* 'I' takes *b-* Future tense marker with *-əi* agreement marker with the verb *kha* 'eat'. The second person subject *tū* 'you NH' also takes same future marker *b-*with *-hi* agreement marker. Likewise, the second person subject *tū* 'you MH' takes *b-* future marker as well with *-hə/hək* concord and the subject *əpne* 'you H' also takes *b-*future marker with *-əi* agreement marker. The third person subject *u/Sita/Ram* takes *t-* future marker with *-əi* agreement either singular or plural in all the cases.

Table 4*The verb likh 'write' showing present suffixes*

Person	Noun/pronoun	Number		Glosses
		Singular	Plural	
1 st Person	<i>hām</i>	<i>likhāi-ch-ai</i>	<i>likhāi-ci-ai</i>	'I write'
2 nd	<i>tū(NH)</i>	<i>likhāi-ch-hi</i>	<i>likhāi-ci-hi</i>	'You write'
Person	<i>tū (MH)</i>	<i>likhāi-ch-ə</i>	<i>likhāi-ch-ə</i>	'You write'
	<i>əpne(H)</i>	<i>likhāi-ch-ai</i>	<i>likhāi-ci-ai</i>	'You write'
3 rd	<i>u</i>	<i>likhāi-ch-ai</i>	<i>likhāi-ch-ai</i>	'He writes'
Person	<i>sita</i>	<i>likhāi-ch-ai</i>	<i>likhāi-ch-ai</i>	'Sita wrutes'
	<i>ram</i>	<i>likhāi-ch-ai</i>	<i>likhāi-ch-ai</i>	'Ram writes'

The table 4 clarifies that the first person subject *hām* 'I' takes *c-* Present tense marker with *-ai* agreement marker with the verb *likh* 'write.' The second person subject *tu* 'you NH' takes *c-* Present tense marker whereas the subject *tu* 'you MH' takes *ch-* present tense marker with *-ə* agreement marker and the subject *əpne* 'you H' takes *c-* present tense marker with *-ai* concord with the verb *likh* 'write.' The third person subject *u/sita/Ram* takes *ch-* present tense marker with *-ai* concord with the verb *likh* 'write' either singular or plural in all the cases.

Mood and modality

Mood is a term used in the theoretical and descriptive study of sentence/clause types, and especially of the verbs they contain. Mood (modality or mode) refers to a set of syntactic and semantic contrasts signaled by alternative imperative. Semantically, a wide range of meaning is involved, especially attitudes on the part of the speaker towards the factual content of the utterance, definiteness, vagueness, possibility (Crystal, 2003, p. 299). Mood describes the speaker's attitude towards a situation, including the speaker's belief in its reality, or likelihood. It sometimes describes the speaker's estimation of the relevance of the situation to him/herself (Payne 1997, p. 244).

The term 'mood' is traditionally to a category expressed in verbal morphology. It is formally a morphosyntactic category of the verb like tense and aspect, even though its semantic function relates to the contents of the whole sentence (palmer 1986:21). In tharu, there are five distinctive moods: indicative, imperative, optative, presumptive, and conditional. The Tharu moods are presented diagrammatically as follows:

Imperative mood

The general characterization of perceptivity will already be apparent, namely explicit reference to the internal temporal structure of a situation, viewing a situation from within: as also will be the general point that perfectivity is not incompatible with perfectivity, and that both can be expressed if the language in

question possesses the formal means to do so (Comrie 1976:24). In Tharu, the imperative mood can be divided into three categories in terms of marking system. In the first category, the second person non-honorific is marked with zero marking. In the second category, the second person mid-honorific is marked with $-\text{ə}$ and in the third category: the second person honorific is marked with $-\text{u}$ as in the example.

<i>tũ</i>	<i>dokan</i>	<i>khol-ə</i>
You-2NH	shop	open-IMP
'(You) open the shop!'		

The example show that imperative mood is marked by two different markers; one types of construction is marked by adding zero markers and another type of construction is marked with $-\text{u}$ and $-\text{ə}$ markers, where the second person non-honorific construction is marked by adding zero markers having imperative mood whereas second person mid-honorific and honorific subjects are marked with $-\text{ə}$ and $-\text{u}$ having imperative mood in Tharu.

Optative mood

Basically, optative expresses the desire, wish or hope. In Tharu, the optative mood is indicated by the different optative markers such as $-\text{I}$, $-\text{u}$, $-\text{hək}$, and əi .

<i>he</i>	<i>bhagban</i>	<i>həm</i>	<i>pas</i>	<i>bhya</i>	<i>ja-i</i>
VOL.	GOD	I	pass	become	go-OPT-I
'May I Pass, o' Lord!'					

Conditional mood

Conditional mood is consisting of antecedents or a condition and consequent. In Tharu, conditional mood is marked by adding $-\text{hi}/-\text{təi}$ which is also expressed the future time or future marker and generally, *tab* (e.g. *than* clause) is appeared in conditional mood in Tharu to indicate conditional mood, too as in the example.

<i>tũ</i>	<i>eb-hi</i>	<i>tab</i>	<i>hum</i>	<i>je-bəi</i>
You	come-COND	then	I	go-FUT.I
'When you will come than I will go.'				

In the example, the conditional mood is marked by two different markers. Where the example show that the second person non-honorific subject is marked with $-\text{hi}$ having conditional mood whereas the example present that the third person subject is marked by adding $-\text{təi}$ conditional marker. That is to clear that the conditional mood is fulfilled by future tense markers where *tab* 'then clause' is appeared in a construction in Tharu.

Interrogative mood

Most of the Indo-Aryan language probably have devices for asking questions, and although there is certainly a need to recognize the typological category of interrogative, the ways in which question may be expressed vary greatly. When the

speakers express their ideas. Information, etc through question that types of mood is called interrogative mood.

<i>ram</i>	<i>ghar</i>	<i>je-tai</i>
Ram	home	go-FUT.3
‘Will Ram to home?’		

In example we observe that the interrogative mood is marked by several forms of tense like past, present, and future. The example present that the interrogative mood is occurred by adding future tense to indicate the interrogative mood with rising tone. That is to clear that interrogative mood is marked by several tense forms with rising tone in Tharu.

Indicative mood

It is the case indicative that the speaker is marking a statement that he believes to be true. The grammatical from that is typically used for such statements (Palmer, 1986, p. 26). The speakers express an opinion, or make an emphasis a statement as in example.

<i>noker</i>	<i>bhat</i>	<i>kha-I</i>	<i>ch-ai</i>
Servent	rice	eat-PROG	AUX-PRES.3
‘Servant eats rice/servant is eating rice.’			

The example present that the tense marker and aspect marker express the indicative mood in Tharu. In the example, the third person subject *nokar* is indicated that ‘the servant is eating rice’ in which the verb *kha* ‘eat’ is marked by progressive marker-*ai(t)* where an auxiliary verb is in present tense.

Hortative mood

A term sometime used in the grammatical analysis of verbs, to refer to a type of Modal meaning in which an exhortation is made (Crysstal, 2003, p. 221). In Tharu, hortative mood is marked by –u or ø having mood as in the example.

<i>əpnaur-ke</i>	<i>cəl-u</i>
We-INC	go-HOR.H
‘Let’s go.’	

The above example present that the hortative mood is marked by two different markers. Where the first person (honorific) inclusive subject is marked with -u having hortative mood. That is to clear that the hortative mood is affected by honorific in Tharu.

The propositional modality associated with a clause may be likened to a shell that encases it but does not tamper with the kernel inside. The propositional frame of clause-semantic and grammatical roles predication type and transitive –as well as the actual lexical items that fill the various slots in the frame, remain largely unaffected by the modality wrapped around the proposition. Rather, the modality

codes the speaker's judgments concerning the propositional information indicated by especially grammatical marking in the verb.

Semantically, epistemic and denote modality might seem to have little in common. One is concerned with language as information, with the expression of the degree or nature of the speaker's Commitment to the truth of what he says. The other is concerned with language as action, mostly with the expression by the speaker of his attitude towards possible action by himself and other (palmer 1986:121). In Tharu, modality is classified into two categories: epistemic uses and de unit uses. The main categories of modality can be further extended into sub-categories: under the epistemic uses are probability and certainty and deontic uses are ability and obligation. The major categories and sub-categories of modality in Saptariya Tharu are shown below.

Epistemic modality

The term 'epistemic' Should apply not simply to modal systems that basically involve the notices of possibility and necessity, but to any modal system that indicates the degree of commitment by the speaker to what he says (palmer 1986:51). The main function of epistemic modality is to indicate the degree of commitment of the speaker to the truth or future truth of the proposition. The epistemic modality has the whole proposition in their scope. In tharu, epistemic modalit includes probability and certainty. These two modalities are discussed below:

i. Probability

The main function of this modality is to indicate the situation in the proposition is probability true. It marks by the adding future tense that is to say that future tense marker and probability markers are same *t-/b-* to indicate the future tense or probability in modality where the auxiliaries *hav-rəh* and *-he* 'be' as in example.

<i>həm</i>	<i>kha-əit</i>	<i>rəh-həi</i>
I	eat-PROG	be-FUT.1

'I may be eating.'

ii. Certainty

It refers to the speaker emphasizes that the proposition is true. In Tharu, the certainty mood is marked by adding *-be* having future tense and the certainty mood are also indicated the emphasis and future time as in example.

<i>həm</i>	<i>likh-bəi</i>
I	write-FUT.1

'I will write'.

The example presents that the certainty is marked by adding *-be* certainty marker in Tharu. These example are also showed that the certainty marker *-be* is appeared with in several tense like past, present , and future but it is generally occurred in future tense in Tharu. That is to mean that the certainty is occurred with several tenses but it is marginally used in past and present tenses in Tharu.

Deontic modality

‘Deontic’ is used in a wide sense here to include those types of modality that are characterized by Jespersen as ‘containing an element of will’. It is obvious, however, that the meanings associated with deontic modality are very different from those of epistemic modality (Palmer, 1986, p. 96). Deontic modality is to indicate the internal or external ability of the speakers with respect to the completion of the predicate situation. In Tharu, there are two deontic modalities: ability and obligatory which are coded by the verbal inflection.

i. Ability

The ability refers to indicate the agent (speaker) of the verb has the mental or physical able to complete the action of the main verb. The Tharu language marks with suffix *-sək* as in the example.

<i>chaura</i>	<i>khyā</i>	<i>sək-əi(t)</i>	<i>ch-əi</i>
Boy	eat	ABIL-PROG	AUX-PRES.3
‘The boy can eat.’			

In the example above, the ability is marked with *sək-* ability marker to show the ability in Tharu. The ability is occurred in several tense forms (i.e. past, present, and future) to express the ability.

ii. Obligation

Obligation implies that the agent (speaker) or does is obliged to perform the action of the verb. In Tharu, Obligation marker *-əike* and subject is marked by accusative or dative markers *-ra* and *-ke* as in the example.

<i>həhar-ra</i>	<i>likh-əike</i>	<i>ch-əi</i>
I-ACC/DAT	write-OBLG	AUX-PRES.1
‘I have to write.’		

The example above expresses that the obligation is marked with *-əike* having obligation marker in a construction. The obligation is occurred with several tense as ability, both ability and obligation modalities are occurred in several tenses but they are marked by different markers where ability is marked by *sək-* ability marker whereas obligation is marked by *-be* obligation marker in Tharu.

Valene increasing operations

Causativization

A causative is a linguistic expression that contains in semantic/logical structure a predicate of cause, one argument of which is a predicate expressing as effect (Payne, 1997, p.176). A term used in grammatical description to refer to the casual relationship between alternative versions of a sentence (Crystal, 2003, pp. 66-67). Causatives can be categorized into three types: lexical; under the lexical there are three types: (i) no change (ii) some idiosyncratic change in verb and (iii) different verb, morphological and analytical/periphrastic causative. A morphological causative is a kind of valence increasing device. Tharu language is one of the causative valences increasing language which has increased lexical and morphological valence but not analytical causative. They are discussed below.

i. Lexical causative

In Tharu, the lexical causative marks with *-ail/el* having causative marker. There are three types of lexical causative: (i) no change (ii) some idiosyncratic change in verb and (iii) different verb. In Tharu, lexical causative is no very productive like morphological causative verb but marginally it occurs as in the example below.

<i>ghāila</i>	<i>phut-lai</i>
Waterpot	smash-PST.3
'The waterpot smashed.'	

In example (125) the verb *phut* 'smash' has subject aligned with patient semantic role. When it is changed into causative than a new argument is added as *māugi* 'woman', the *māugi* stands as a causer role of agent and there is some idiosyncratic change in verb (i.e. u-----o).

ii. Morphological causative

Morphological causative is a very much valence increasing device and is a very productive too. Basically, there are two types of in Tharu terms of cause and effect: (i) first causative and (ii) second causative. First causative refers to the degree of closeness between cause and effect which is formed by adding the suffix *-e* to the non-causative verb stem and the second causative refer to the degree of closeness between the cause and affect which is formed by adding suffix *-be* to the non-causative verb stem. In Tharu, both intransitive and transitive can be causativized as in the example.

<i>tū</i>	<i>mər-bihi</i>
You	die-FUT.2NH
'You will die.'	

In the above example, example (131) is an intransitive sentence and example is a transitive sentence which is derived via transitivity of the verb *mər*- 'die'.

a. Causative of monotransitive

The causative marks with *-ail* having first causative whereas second causative construction marks with *-bail*. The verb which takes direct object is called monotransitive verb as in the example.

<i>jən</i>	<i>khet</i>	<i>rop-əl-kəi</i>
worker	field	plant-PST.3
'The worker planted the field.'		

Table 5

Past tense agreement inflections in Tharu

Object	3	2MH	2H	2NH	I
Subject					
3	<i>del-kəi</i>	<i>del-kə</i>	<i>del-kəi</i>	<i>del-kəu</i>	<i>del-lie</i>
2MH	<i>de-kə</i>	-	-	-	<i>de-liəi</i>
2H	<i>de-liəi</i>	-	-	-	<i>de-ləi</i>
2NH	<i>del-kəu</i>	-	-	<i>de-lihi</i>	<i>de-lihi</i>
I	<i>de-liəi</i>	<i>de-liə</i>	<i>de-liəi</i>	<i>de-liəu</i>	<i>de-liəi</i>

Table 6

Future tense agreement inflections in Tharu

Object	3	2MH	2H	2NH	I
Subject					
3	<i>de-təi</i>	<i>de-tə</i>	<i>de-təi</i>	<i>de-təu</i>	<i>de-bəi</i>
2MH	<i>de-tə</i>	-	-	-	<i>de-bə</i>
2H	<i>de-bəi</i>	-	-	-	<i>de-bəi</i>

Tharu language has valence increasing and decreasing devices. It has valence increasing devices like causativization, transitivity etc. The causative marker is *-ail/ai* of Tharu language which has taken an additional argument (i.e. *gachi gi-ləi*. 'the tree fell down'-change into *-bihai gachi-ke gir-ail-kəi*. 'the storm fell down the tree'.) When the verb *gir* 'fall' is causativized, the additional argument *bihair* 'storm' appears in the clause. That is to say that causativization is a valence increasing device of Tharu.

'Be' verb

'Be' verb has been treated either as a copula or as an auxiliary or as a main verb which is carrying tense and inflectional affixes. In Tharu *c-*, *ch-*, *he-* and *rəh-* are verbs. They occur as a copula or as a main verb and as an auxiliary in several tenses (past, present, and future tense). In this section, a brief discussion of 'be' verb occurs as a copula as an auxiliary or as a main verb.

rəh- 'was' occurs as the past form of *c/ch-*. It occurs with first person past tense, second person past tense (when emphasizing, *h-* is silent), and third person past tense and when arises question with third person past tense where *h-* is silent as an auxiliary verb as in the example.

<i>həm</i>	<i>ghər-me</i>	<i>rəh-liəi</i>
I	home-at	be-PST.1
'I were at home'.		

'Be' verb have been treated as either a copula or auxiliary verbs. There are two types of copula: *c-* and *ch-* Which are used as a main verb. The copula *c/ch-* has occurred as locative clause, equational clause, possessive clause etc. The auxiliary verbs *c-* and *ch-* (i.e. *c-* and *ch-* which are present form) which occurs as past tense and future tense as *ch-* *rəh-* and *he-*, whereas the auxiliary verbs of past tense are *ch-* and *rəh-*, verb of future tense are *he-* and *rəh-*. When *c/ch-* 'to be' used as a copula, a subject and predicate nominal or adjective. There are different types of existential, equational and possessive constructions have copula 'Be' verb *c/ch-* and *hə-* 'to be' is highly idiosyncratic stative verb. When combined with the progressive aspect marker *-əi(t)*, The auxiliary verb will be automatically followed.

The Tharu language has two negative markers *nəi-* and *-ne* which the *nəi-* is prefixed or preposed to the verb either 'be' verb or main verb to main verb to make the negative sentence and *-ne* is suffixed or postposed to the main verb to make the emphasis on the sentence as a negator. The Tharu language does not have inherently negative quantifiers and adverbs of the *none*, *on-one*, *nothing*, *never*, and *nowhere* type but tense are fulfilled by adding *-ne* negative marker.

Findings and Conclusion

Most of the Tharu verb stems are monosyllabic structure. There are two types of verb stems in Tharu: (i) vowel-final stem and (ii) consonant-final stem. Vowel-final stems are more complex than consonant-final stems. In Saptariya Tharu, there are three types of tenses: (i) past tense (ii) Present tense and (iii) future tense. The past tense markers are *I-* and *k-* likewise, present tense is marked with *c-* and *ch-* and the future tense is marked by *b-* and *t-*. Saptariya Tharu language has two types of aspect: (i) lexical aspect and (ii) grammatical aspect, Within the grammatical aspect, it has been divided into two types: (i) perfect aspect (ii) progressive aspect and (iii) habitual aspect. The perfect aspect marks with *-ne* and *-əi* whereas the progressive aspect is marked with *-əit* and habitual aspect is marked by tense (i.e. Present and past tenses.) Moods are divided into six types: (i) imperative mood (ii) optative mood (iii) subjunctive (conditional) mood (iv) interrogative mood (v)

indicative mood and (vi) hortative mood. The imperative mood is marked three ways; second person non-honorific subject is marked with zero marker, second person honorific subject is marked with *-u* and whereas second person mid-honorific subject is marked with *-ə* Conditional mood is indicated by *tab* 'then'. Interrogative mood is expressed by arising question. Basically, modality is divided into two types: (i) epistemic modality and (ii) deontic modality. Epistemic modality is also divided into two types; probability and certainty. Likewise, deontic modality is categorized into two types; ability and obligation. In the verb agreement system, the verb agreement inflection encode the person and honorific (i.e. second person mid-honorific singular or plural subject) grade of the subject noun phrase which is in nominal case. There are two types of verb agreement inflection exist in Tharu; primary agreement inflection and secondary agreement inflection. The primary agreement inflection are obligatory or inflected without accusative-dative case whereas secondary agreement inflections are inflected by the accusative-dative case.

In terms of valence in Tharu conclusion there are two operation: (i) valence increasing operation and (ii) valence decreasing operation. In valence increasing operation, the causative constructions are valence increasing device which is analyzed through three ways: (i) lexically (ii) morphologically and (iii) analytically/periphrastically. In causative construction, a new argument is added which is causer and acquired the properties of the subject of non-causative construction and it is changed into the object which is cause. In valence decreasing operations, passivization plays a vital role in valence decreasing operation. The personal passives are constructions for which some specific agent is expressed. In Tharu, 'Be' verbs have been treated as either copula or auxiliary verb which carries tense and inflectional affixes, if the 'Be' verbs are used as a main verb, are called copula. If not used as a main verb or if the 'Be' verbs are not used as a main verb, are called helping verb or auxiliary verb. There are two types of copula; *c-* and *ch-* which are used as a main verb. The helping or auxiliary verbs is classified into two types; (i) 'Be' verb as a copula and (ii) 'Be' verbs as an auxiliary verb. The Tharu language has two negative markers *nai-* and *-ne* which the *nei-* is prefixed or preposed to the verb either 'be' verb or main verb to make the negative sentence and *-ne* is suffixed or post posed to the main verb to make the emphasis on the sentences as a negator.

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बंगाल, नेपाल, र तिरहुतको पूर्वमध्यकालको इतिहासमा आफ्नो अमिट छाप छोडेर महत्वपूर्ण स्थान प्राप्त गरेका श्रीधरदास विशिष्ट पहिचान कायम गर्न सफल देखिन्छन् । नान्यदेवका मन्त्री, लक्ष्मणसेनका महामाण्डलिक एवम् सद्भक्तिकर्णामृतका रचनाकार तथा अरिमल्लका राणक तीनवटै श्रीधरएउटै व्यक्ति हुन कि फरक व्यक्तित्व तीनवटैको विचमा के, कस्तो सम्बन्ध रहेको छ ? यहि विषयमाकेन्द्रित रहेर तत्कालीन अभिलेख, पुष्पिकावाक्य र इन्टरनेटमा उपलब्ध सामग्रीहरुको गुणात्मक अनुसन्धान पद्धति अनुसार तथ्याङ्क संकलन र विश्लेषणको आधारमा यो शोधपूर्ण लेख तयार गरिएको छ । प्राप्त तथ्यहरुको आधारमा चक्रधर पुत्र देवधर (प्रसिद्ध श्रीधर) नान्यदेवको मन्त्रीको रूपमा देखिन्छन् भने वटुपुत्र श्रीधर सद्भक्तिकर्णामृतका रचनाकार र लक्ष्मणसेनका महामाण्डलिक देखिन्छन् । पञ्चावतदेशविषयका राणक श्रीधरसिंह गण्डीगुल्म विषयका कायस्थ कुलपुत्र जीवधर सिंहका वंशज देखिन्छन् । अतः नान्यदेवका मन्त्री र लक्ष्मणसेनका महामाण्डलिक दुवैको समय गणना गर्दा १०८ वर्षको फरक देखिएकोले दुई भिन्न व्यक्ति हुन । तर एकै समयमा देखिएपनि बंगालका श्रीधरदास र नेपालका

श्रीधरसिंह दुई भिन्दाभिन्दै कायस्थ कुलका व्यक्तिहरु हुन । राणक श्रीधरसिंहका पुर्वज तिरहुत मिथिलाका भएपनि यीनीहरु नेपालमा बसाई सरेकोले नेवारी कायस्थ कसजु कहलिए । तिरहुत बंगालका श्रीधरका वंशजहरु मिथिलामा बसोबास गरेका कारण करणकायस्थ कहलिए । यी तीनैजना श्रीधरहरु कायस्थ कुलका गौरवहरु हुन ।

शब्दकुञ्जी: मन्त्री, महामाण्डलिक, राणक, श्रीधर

अध्ययनको पृष्ठभूमि

पूर्वमध्यकालिन नेपालको इतिहासमा सिमरौनगढको कर्णाटराज्यको विशिष्ट स्थान रहेको छ । सिमरौनगढबाट प्राप्त अभिलेखको आधारमा सन १०९७ जुलाईमा कर्णाट राज्यका

संस्थापक नान्यदेवले सिमरौनगढमा गृहवास्तु गरेका थिए । सिमरौनगढबाट प्राप्त शिलालेखको श्लोक यसप्रकार रहेको छ ।

“नन्दे विन्दु विधु शम्मित शाकवर्षे सच्छविणे सितदले

मुनि सिद्धितित्थ्याम स्वातौ शनैश्चर दिने करवैरि लग्ने

श्री नान्यदेव नृपतिर्व्यदधित वास्तुम”॥ (चौधरी, २०१०ई, पृ. ७०)

यस श्लोकमा नन्द ९ इन्दु १ विन्दु ० विधु १ लेख्दा ९१०१ हुन्छ । उक्त अंकलाई बाँयातर्फबाट लेख्दा १०१९ शक सम्वत ईस्वी सन १०९७ श्रावण महिना स्वाती नक्षत्र सिद्धि योग सप्तमी तिथि शनिवार सिंह लग्न हुन आउँछ । यसप्रकार ईस्वी सन १०९७ को जुलाई (साउन) महिनामा सिमरौनगढमा नान्यदेवले नृपतिको रूपमा गृहवास्तु गरेको कुरा पुष्टि हुन आउँछ ।

सिमरौनगढका कर्णाटवंशका संस्थापक नान्यदेवका प्रधानमन्त्री श्रीधरदास कायस्थ थिए । जसको उल्लेख नेपाली र भारतीय दुवै इतिहासकारहरूले गरेका छन् । वरिष्ठ पुरातत्त्वविद तारानन्द मिश्र लेख्छन् “नान्यदेवका श्रीधर कायस्त र रत्नदेव आदि मन्त्री थिए ।” (मिश्र, वि.स. २०५७, पृ. ८) प्रमाणिकताको आधारमा कर्णाटकलभूषण नान्यदेवद्वारा वि.स. ११५४ (१०९७ ई.) मा सिमरौनगढमा राजधानीको स्थापना भएको थियो । कर्णाटकबाट नान्यदेवकासाथ केहि कायस्थहरू पनि आएका थिए । त्यसमा सर्वाकर ठक्कुर (देवान वटुदास) नामक कर्ण कायस्थका छोरा श्रीधरदास पनि थिए । जसलाई श्रीधर ठाकुर, श्रीधर ठक्कुरका साथै देवधरको नामले पनि जानिन्छ, यी श्रीधर मिथिला राज्यका संस्थापक नान्यदेवका धिसचिव (देवान) रहनुका साथै नान्यदेवका पुत्र गंगादेवका प्रधानमन्त्री भई कामकाज गरेको कुरा डा. शैलेन्द्रनारायण मल्लिकले लेखेका छन् । (मल्लिक, वि.स. २०७०, पृ. १७)

समकालीन श्रीधरको अन्हराठाढी अन्तर्लेख प्रायः यसकालको एकमात्र ऐतिहासिक अभिलेख हो । अभिलेख अनुसार श्रीधर कायस्थ थिए र नान्यदेवका पुत्र गंगादेवका प्रधानमन्त्री थिए । यसबाट ज्ञात हुन्छ कि श्रीधरले सम्भवतः पिता र पुत्र दुवैको अधीनमा सेवा गरेका थिए । (ठाकुरः १९९२ई. पृ. १५१) नान्यदेवका मन्त्री श्रीधरदासको एउटा तिथिविनाको शिलालेख अन्हराठाढी गाउँमा रहेको छ । जसको पाठ निम्नलिखित छ ।

“ॐ श्रीमन्नान्यपतिर्जेता गुणरत्न महार्णवः

यत्कीर्त्या जनितम विश्वे द्वितीय क्षीरसागर ।

मन्त्रीणा तस्यन्नान्यस्य क्षत्र वंशाब्ज भानुनां

देवोयकारित श्रीधरः श्रीधरेणच

यस्यास्य वाल्मिकेर विजयो प्रबन्ध जलधौ

व्यासस्य चात्यद भुते वाद्यैरणवद्य गद्य

चतुरैरन्यैश्च विस्तारितेऽस्माकम

क्वर्पुनगिरामवसरः

कोवाकारोत्यादर यद्वालवचोप्य” । (चौधरी, २०१०ई., पृ. ७१)

यसप्रकार माथिको साक्ष्यप्रमाणहरुको आधारमा प्रष्ट हुन्छ कि सिमरौनगढको कर्णाटवंशको शासनकालमा श्रीधरदास एक प्रभावशाली व्यक्ति थिए । श्रीधर र रत्नदेवका वंशजहरुले कर्णाटकालमा महत्वपूर्ण पद धारण गरेका थिए । प्रो. राधाकृष्ण चौधरीका अनुसार श्रीधरदास र रत्नदेवका वंशज मिथिलामा धेरै दिनसम्म मन्त्रीको पद सम्हाल्दै आएका थिए । श्रीधरदासलाई सेनवंशको तर्फबाट महामाण्डलिकको पदवी दिइएको थियो । रत्नदेवका वंशजहरुलाई सामन्तवादी पदवी “रउत” दिइएको थियो । विद्यापतिको रचनामा रत्नदेवका वंशज रउत रजदेवको उल्लेख पाइन्छ । (चौधरी, २०१०ई., १६४) अन्हराठाढीको अभिलेख अनुसार श्रीधरदास नान्यदेवका मन्त्री देखिन्छन् । उपेन्द्र ठाकुरले श्रीधरलाई गंगादेवको प्रधानमन्त्री भनेका छन् । लगभग त्यसै समयमा बंगालका लक्ष्मणसेनका महामण्डलिक सदुक्तिकर्णामृतका रचनाकार वटुदासका छोरा श्रीधरदास कायस्थ देखिन्छन् । नेपालको गोपालराजवंशावलीमा अरिमल्ललाई सत्ता प्राप्तिमा सहयोग गर्ने पञ्चावत देशका राणक पदमा रहेका श्रीधर पनि शक्तिशाली व्यक्तिको रुपमा इतिहासमा उपस्थित छन् । अतः ईशाको बाह्रौं शताब्दीमा देखिएका यी तीनवटै पात्रहरु एउटै श्रीधर हुन कि फरक फरक व्यक्ति हुन ? यदि एउटै व्यक्ति हुन भने एकैसाथ बंगाल र तिरहुत राज्यका प्रधानमन्त्री हुन कसरी सम्भव छ ? अरिमल्ललाई सत्तारोहणमा सहयोग गर्ने पञ्चावत देशीय राणक श्रीधरसिंहसित त्यसको के सम्बन्ध रहेको छ ? यीनै प्रश्नहरुको उत्तर खोज्ने प्रयास यस अनुसन्धानात्मक लेखमा गरिएको छ ।

अध्ययनको उद्देश्य

यस अध्ययनको मुख्य उद्देश्य नान्यदेवका मन्त्री श्रीधरको वंश परीचयको खोजी गर्नु हो । यसका लागि निम्न उद्देश्यहरुमा केन्द्रित भई यो अनुसन्धानात्मक लेख तयार गरिएको छ ।

(क) नान्यदेवको मन्त्रीको रुपमा उल्लेख गरिएका श्रीधर, सदुक्तिकर्णामृतका लेखक लक्ष्मणसेनका महामाण्डलिक श्रीधरदास कायस्थ र अरिमल्लको समयमा राणक पदमा रहेका श्रीधरसिंहको परीचय खोज्नु

(घ) यी तीनवटै श्रीधर बिचको सम्बन्ध पत्ता लगाउनु हो ।

अध्ययन विधि

यस अध्ययनले सिमरौगढको इतिहासमाथि प्रकाश पार्नुकासाथै सिमरौनगढ र काठमाडौं उपत्यकाको सम्बन्धमाथि समेत प्रकाश पार्नेछ । बंगाल, तिरहुत र नेपालको इतिहासमा देखिएका तीनवटै श्रीधर बिचको अन्यौलताको अन्त्य गर्दै श्रीधरदासको वास्तविक परीचय पत्ता लगाउन सहयोग गर्नेछ । यो अनुसन्धानात्मक लेख तिरहुत, नेपाल र बंगालको इतिहासमाथि अनुसन्धान गर्ने अनुसन्धानकर्ताहरुको लागि महत्वपूर्ण स्रोत हुनेछ ।

यो एक ऐतिहासिक अनुसन्धान भएकोले यसका लागि गुणात्मक अनुसन्धान पद्धति अपनाइएको छ । प्राथमिक तथ्यांकहरु संकलनका लागि सिमरौनगढ, अन्धराठाढीको स्थलगत भ्रमण गरिएको छ । सहायक स्रोतको रूपमा अभिलेख, पुष्पिकावाक्यका साथै विभिन्न समयमा विभिन्न विद्वानहरु, अध्ययन अनुसन्धानकर्ताहरु, इतिहासकारहरुले गरेका खोज अनुसन्धानको आधारमा प्रकाशित गरेका साहित्यिकहरुलाई प्रयोग गरिएको छ । यो मेरो अनुसन्धानात्मक कार्य पूर्णरूपमा अग्रज इतिहासकारहरुको कृतिहरुमाथि आधारित रहेको छ ।

नान्यदेवका मन्त्री श्रीधर

भारतको बिहारराज्यको मधुबनी जिल्ला अन्तर्गत भञ्जपुर प्रखण्डको अन्धराठाढी गाउँको कमलादित्य स्थानको विष्णुमूर्तिको पादपीठ अभिलेखमा नान्यदेवकासाथ मन्त्रीको रूपमा श्रीधरको उल्लेख गरिएको छ । तर दुःखको कुरा अभिलेख खण्डित अवस्थामा भएकोले तिथिमिति उल्लेख भएको देखिदैन । जसले गर्दा यो अभिलेख नान्यदेवको शासनको शुरुको अवस्थाको हो कि रु अन्ततिरको प्रष्ट हुनसकेको छैन । यस सन्दर्भमा भारतीय इतिहासकार डा.रङ्गनाथ दिवाकर लेख्छन् “अन्धराठाढी क्षेत्रमा सेनहरुको दबदबा भएको गाउँमा लगभग ईस्वी सन ११४२ तिर नान्यदेवले सैनिक अभियान शुरु गरे । पहिलेको यस्तो अभियानलाई श्रीधरले सफल हुन दिएको थिएन । त्यसैले श्रीधरलाई कूटनीतिपूर्वक आफ्नो पक्षमा मिलाएर उनको सहयोगले सेनहरुसित भएको भिषण युद्धमा नान्यदेवले विजयश्री प्राप्त गरे । कमलादित्य स्थानको अर्को सार्थक नाम कमलादान अर्थात जहाँ लक्ष्मीको आदानप्रदान भएको थियो, त्यो ठाउँ हो । यसैको सम्झनामा सुप्रसिद्ध अन्धराठाढी शिलालेख लक्ष्मीनारायण मूर्तिको पादपीठमा लेखिएको थियो” (दिवाकर, सन २०२३, ११) । यसप्रकार दिवाकरले उक्त अभिलेखलाई नान्यदेवको शासनको अन्ततिरका ठानेर नान्यदेवका मन्त्री श्रीधरलाई गंगादेव हुँदै लक्ष्मणसेनका महामाण्डलिक श्रीधरलाई समेत एउटै मानेका छन् । तर अर्का भारतीय विद्वान भवनाथ भाले नान्यदेवका मन्त्री र लक्ष्मणसेनका महामाण्डलिक श्रीधरलाई भिन्न व्यक्ति ठानेका छन् । उनी लेख्छन् “नान्यदेवको शिलालेखको तिथि शाके १०१९ देखि सदुक्तकर्णामृतको तिथि १२६ वर्ष पछिको हो । त्यसैले दुवै श्रीधर एउटै हुनु असम्भव देखिन्छ । शाके १०१९ भन्दा पहिले नै सदुक्तकर्णामृतकार श्रीधरले कमलादित्य स्थानको मूर्ति स्थापना गरेका होलान भन्ने कुरा त भन असम्भव देखिन्छ । त्यसैले

सदुक्तिकर्णामृतकार श्रीधरदास र अन्धराठाढीकोश्रीधर दुईभिन्न व्यक्तिहरु थिए भन्ने निश्चित हुन आउँछ” (भा: सन २०१९) । उनी अगाडि लेख्छन् “महामहोपाध्याय परमेश्वर भाले अन्धराठाढी अभिलेखको आफ्नो पाठको आधारमा मिथिलातत्त्वविमर्श सन१९४९ को दरभंगा संस्करण पेज नं. १५ मा लेख्छन्- राजा नान्यदेवको धिसचिव (देवान, मुन्तजिम मूल्क) वटुदासका छोरा श्रीधरदास रङ्गवाली कायस्थ थिए । उनी पहिले बल्लालसेनको सेवामा रहेका थिए । बल्लालसेनलाई उनीमाथि आफु र आफ्ना छोरा लक्ष्मणसेनलाई फुटाउन खोजेको शंका लागेपछि उनलाई बंगालबाट निकाला गरेका थिए । त्यसपछि श्रीधर नान्यदेवको शरणमा आएका थिए । उनले स्थापना गरेको कमलादित्य नाउँको विष्णुमूर्ति अन्धराठाढी गाउँको जब्दी प्रगन्नामा रहेको छ” (भा, २०१९) । यसप्रकार म.म. परमेश्वर भाले पनि नान्यदेवका मन्त्री र वटुदासका छोरा सदुक्तिकर्णामृतकार श्रीधरलाई एउटै मानेको देखिन्छ । यिनै प्रमाणहरुको आधारमा नेपाली इतिहासकार डा. शैलेन्द्रनारायण मल्लिकले पनि देवान वटुदासलाई प्रसिद्ध सर्वाकर ठक्कुर र उनका छोरा श्रीधरलाई प्रसिद्ध देवधर मानेर नान्यदेवका मन्त्री र लक्ष्मणसेनका महामाण्डलिक दुवै श्रीधरलाई एउटै मानेका छन् । जबकि सिमरौनगढको नान्यदेवको अभिलेखको मिति र सदुक्तिकर्णामृतकार श्रीधरले लेखेको उक्त ग्रन्थको पुष्पिकावाक्यमा दिइएको मिति मिलाउँदा १०८ वर्षको फरक देखिन आउँछ । माथि चर्चा गरिए अनुसार नान्यदेवको अभिलेखको मिति शाके सम्वत १०१९ हो भने सदुक्तिकर्णामृतको पुष्पिकावाक्यमा निम्नानुसारको मिति लेखिएको छ ।

“शाकेत्र सप्तविंशत्यधिकशतोपेतदशशते शरदाम ।

श्रीमल्लक्ष्मणसेनक्षितिपस्य रसकविशेऽब्दे ॥

सवितुर्गत्या फाल्गुनविंशेषु परार्थहेतवे कुतुकात ।

श्रीधरदासेनेदं सदुक्तिकर्णामृतं चक्रे ॥”(बनर्जी, सन १९६५, पृ ६५१)

यस पुष्पिकावाक्यमा दिइएको मिति सप्तविंश(२७) त्यधिकशतोपेत (१००)दशशते (१०००) अर्थात १०००+१००+२७ गरी शाके सम्वत ११२७ हुन आउँछ । अब नान्यदेवले गृहवास्तु गरेको शाके सम्वत १०१९ लाई ११२७ बाट घटाउँदा १०८ वर्षको फरक देखिन आउँछ । अतः दुवै श्रीधर फरक देखिन्छन् ।

अर्को महत्वपूर्ण कुरा मेजर विनोदविहारी बर्माले सन १९७१ मा प्रकाशित गरेको मिथिलाका करणकायस्थक पाँजि सर्वेक्षण पुस्तकमा आठौँ शताब्दीका विजि पुरुष मंग्यदासदेखि वटुपुत्र श्रीधरदाससम्म चारवटा श्रीधरको उल्लेख गरेका छन् । जसमा सर्वाकर पुत्र श्रीधर (देवधर) एघारौँ पुस्तामा पर्दछ भने वटुपुत्र श्रीधर पन्ध्रौँ पुस्तामा पर्दछन । अतः १०८ को फरकमा चार पुस्ताको फरक उपयुक्त नै देखिन्छ । त्यसैले नान्यदेवका मन्त्री र सदुक्तिकर्णामृतकार श्रीधर फरक फरक दुई व्यक्तिहरु रहेको पुष्टि हुन आउँछ ।

महामाण्डलिक श्रीधरदास कायस्थ

सदुक्तिकर्णामृतकार श्रीधरदास कायस्थले आफ्नो संकलनको पाँचवटै प्रवाहहरूका पुष्पिकावाक्यहरूमा आफुलाई महामाण्डलिक भनेका छन् । उनी बंगालका राजा लक्ष्मणसेनको आश्रयमा रहेका थिए । सम्भवतः लक्ष्मणसेनले उनलाई आफ्नो राज्यको कुनै मण्डलका प्रशासक नियुक्त गरेका होलान । उनका बुवा वटुदास लक्ष्मणसेनका महासामन्त चूडामणि पदमा रहेका थिए । यो कुरा श्रीधरदासले आफ्नो ग्रन्थमा दिएको परीचयबाट प्रष्ट हुन्छ । उनले यो संकलन ई.स.१२०५-६ तिर तयार पारेको कुरा यस पुस्तकको पुष्पिकावाक्यबाट प्रष्ट हुन्छ । “श्रीधर एक निष्ठावान वैष्णव थिए, जसको धार्मिक संस्कारको प्रभाव उनको संकलनमा सुस्पष्ट देखिन्छ ।” (त्रिपाठी, सन २००७, पृ. ६)

श्रीधरको जन्म एक सामन्त परिवारमा भएकोले उनको लालनपालन राजकीय र प्रशासकीय परिवेशमा भएको थियो । राजा लक्ष्मणसेन स्वयं आफु पनि विद्यासम्बद्ध र विद्यानुरागी थिए । त्यसैले श्रीधरदासलाई विद्या वंशानुगत रूपमा प्राप्त भएको थियो । (डा. शारदा बी.राठोड : सन २०१९ : पृ. २२)

स्वयं श्रीधरदासले आफ्नो ग्रन्थको प्रस्ताव शीर्षकको पहिलो श्लोकमा लक्ष्मणसेनको महासामन्तको रूपमा वटुदासको वर्णन यसप्रकार गरेका छन् ।

“ सश्रीलक्ष्मणसेन एकनृपतिर्मुक्तश्चजीवन्नभूत ॥ १ ॥

त्स्यासीत्प्रतिराजतद्वृत महासामन्तचूडामणिर्नाम्ना

श्रीवटुदास इत्यनुपमप्रेमैकपात्रं सखा” । (बनर्जी, सन १९६५, पृ. १)

अर्थात् यो भूत जीवनबाट मुक्त एक राजा श्री लक्ष्मणसेन त्यसको आश्रित राजकीय आदर प्राप्त महासामन्तचूडामणि श्रीवटुदास उनको अनुपम प्रेमको पात्र सखा थिए । त्यसैगरी उक्त ग्रन्थमा उनले आफ्नो परीचय यसप्रकार दिएका छन् ।

“ इतिश्रीमहामाण्डलिक श्रीधरदास संगृहिते सदुक्तिकर्णामृते

देवता प्रवाहो नाम प्रथमः प्रवाहः ॥ अत्र वीचयः ९५ श्लोका ४७५” ॥ (शर्मा: सन १९१२ : पृ. १२१)

महासामन्तचूडामणि वटुदासका छोरा महामाण्डलिक श्रीधरदास लक्ष्मणसेनको शासनकाल ई.स. ११७९-१२०५सम्मको अवधिमा उनको शासनकालको अन्ततिर सदुक्तिकर्णामृतको संकलन गरेका थिए ।

पञ्चावत देशीय राणक श्रीधरसिंह

यसै समयमा नेपालको इतिहासमा राजा अरिमल्लदेवको साथमा पञ्चावतदेशीय विषयाधिपति राणक श्रीधरसिंह निकै शक्तिशाली देखिन्छन् । उनको सम्बन्धमा पाइएको पुष्पिकावाक्य निम्नानुसार रहेको छ ।

“श्रेयोस्तु सम्वत्सरे शतत्रयएकविंशत्यधिक पौष कृष्णत्रयोदश्यां गुरुदिने मूल नक्षत्रे व्याघातयोगेश्रीनेपालराजाधिराजपरमेश्वरपरममाहेश्वरपशुपतिभट्टारकस्य ।

श्रीअरिमल्लदेवस्य विजयराज्ये श्रीपञ्चावतदेशीयविषयाधिपतिराणक श्रीश्रीधरसिंहवर्तमाने”
॥ (बज्राचार्य, वि.स. २०६६, पृ. ६५)

नेपाल सम्वत ३२१ अर्थात वि.स. १२५७ (ई.स.१२००) मा श्रीधरसिंह पञ्चावत देशका विषयाधिपतिराणक पदमा रहेका देखिन्छन् । अब यहाँ यो श्रीधरको विषयमा विश्लेषण गर्नु आवश्यक देखिन्छ । पञ्चावतदेश विषयका प्रशासक श्रीधरसिंह राणा (मगर) थिए भन्ने त्यहाँ दर्शाइएको छ । राना (मगर) प्रशासक भएको नेपाल अन्तर्गतको यो विषय पनि नुवाकोटभन्दा पश्चिमतिरको हो भन्ने देखिन्छ (बज्राचार्य, वि.स. २०६६, पृ.१९-२०) । ज्ञानमणि नेपालले निकै विश्लेषण गरेर उनलाई पञ्जाबी भनेका छन् । उनी लेख्छन् “तिनैमा एक राणक श्रीधर पञ्जाबी पर्न आए । यिनी अरिमल्लका पालामा पश्चिमको गण्डीगुल्म विषयमावा पन्नग विषयमा यसबेला शक्तिशाली सामन्तका रुपमा शासन चलाउँथे” (नेपाल, वि.स. २०५४, पृ ११४) । यसरी नेपाली इतिहासकारहरुको माझ श्रीधर सम्बन्धमा निकै विवाद देखिन्छ । बज्राचार्यले राणामगर त नेपालले पञ्जाबी भनेका छन् । अतः यी श्रीधर सिंहको नेपाल उपत्यका पश्चिमको धवलस्रोतपुर, गण्डीगुल्म, मंग्वर, पन्तुगणिय, पञ्चावत विषयमाथि विचार गर्नु आवश्यक देखिन्छ । अर्को महत्वपूर्ण कुरा लिच्छवि शासन कमजोर भएपछि आन्तरिक गृहकलहमा फँसेका नेपाल उपत्यकाका राजाहरु पश्चिमका यी विषयहरुमाथि कसरी नियन्त्रण कायम गर्न सक्थे । यस सम्बन्धमा विचार गर्दा उत्तरी भारतमा हिन्दू धर्मावलम्बी गुप्तहरुको पतनपछि बौद्धधर्मावलम्बी पालवंशको शासन बिहार बंगालमा कायम भएपछि प्रशस्त हिन्दूहरु पहाड पसे । गुप्तहरुकै प्रशासनिक संरचना अनुसारको शासनव्यवस्था कायम भयो । जसको प्रत्यक्ष उदाहरणको रुपमा नेपालको लिच्छविकालको प्रशासनिक व्यवस्थालाई लिन सकिन्छ । लिच्छविशासन बलियो छँदा त कोशी गण्डकी पारीका सामन्तहरु नियन्त्रणमा थिए । तर केन्द्रको शासन कमजोर भएपछि पूर्वका किराँतप्रदेशहरुमा बंगालका पालवंशीहरुको बौद्धधर्मको प्रभाव बढ्न थाल्यो भने पश्चिम गण्डकीप्रदेशमा दशौँएघारौँ शताब्दीमा दरौँदीगण्डकी मण्डल(देश) अस्तित्वमा आयो । जसअन्तर्गत चम्पारणदेखि गोरखपुरसम्म र गंगादेखि हिमालसम्म ४२ वटा विषय जिल्लाहरु थिए । नेपालको चितवन जिल्लाको वाल्मीकि आश्रमको रुपमा परिचित हरिहरक्षेत्र यस दरौँदीगण्डकी देशको राजधानी शहर थियो । मोहनप्रसाद खनालको शब्दमा

“प्राचीन तिरहुत राज्यको पश्चिमी सीमा मानिएको नारायणी नदीको पुर्वीतट नजिकै अवस्थित हालको वाल्मीकि आश्रम मध्यकालदेखि नै हरिहरक्षेत्रको नाउँले प्रख्यात थियो । सप्तगण्डकी, सोनानदी र पञ्चानदीको संगमस्थल अर्थात त्रिवेणी परेका यो भूभाग धार्मिक र पुरातात्विक दृष्टिले आज पनि विशेष महत्व राख्दछ” (खनाल, वि.स. २०५६, पृ. ९२) । पञ्चानदी किनारको यस विषयलाई पञ्चावतदेशविषय भनिएको हुन सक्छ । यस दरौँदीगण्डकी देशको मुद्रा, अभिलेखहरु भारतको चम्पारण, वैशाली, देवरिया र गोरखपुरबाट प्रशस्त मात्रामा पाइएका छन् । तर ति अभिलेखहरुमा दरौँदी नलेखी दरदगण्डकी देश भनी लेखिएको छ । यो दरद शब्द संस्कृत भाषाको शब्द हो । इतिहासविद महेशराज पन्तको शब्दमा “ मगर भाषामा खोलाको पछाडि ‘दी’ अक्षर आउँछ । जस्तै:- तादी, मादी आदी नदीका नाम भएकाले गन्दी नामबाट संस्कृतमा गण्डकी बनेको सामान्य अर्थ लगाउन सकिन्छ ।” (पन्त : वि.स. २०७८/०३/२२ : अनलाइन खबर) । यसैगरी मगर भाषाको दरौँदी शब्दको संस्कृत रुप नै दरद शब्द हो । अर्को शब्दमा भन्दा नेपालको दरौँदी नदीलाई नै अभिलेखमा दरद भनिएको हो । यो गण्डकीको सहायक नदी भएकोले गण्डकी नदीसित जोडिएर यस दरौँदीगण्डकी नदीको प्रस्रवण क्षेत्र चम्पारणदेखि गोरखपुरसम्म र गंगादेखि हिमालसम्मको भूगोलमा अवस्थित देशको नाम दरदगण्डकीदेश राखिएको देखिन्छ । यस दरौँदीगण्डकीदेशबाट जारी गरीएका तथा भारतको पुरातत्व विभागबाट प्रकाशित एपिग्राफिकाइण्डिका जरनलको अंक ७ र अंक ३५ मा छापिएका लखनउ र पटनाका संग्रहालयमा सुरक्षित यस देशका चारवटा ताम्रपत्रहरुमध्ये दुईवटा लखनउ र दुईवटा पटना संग्रहालयमा रहेका छन् । यी साक्ष्यप्रमाणहरुको आधारमा इतिहासविद राधाकृष्ण चौधरी लेख्दछन्, “एघारौँ शताब्दीका दुईवटा अभिलेखहरु हालै चम्पारणबाट प्राप्त भएको छ । जसबाट त्यसबेलाको शासनप्रणालीमाथि केहि प्रकाश पर्दछ । गोरखपुरदेखि चम्पारणसम्मको क्षेत्रलाई दरदगण्डकीदेश भनिन्थ्यो र प्रशासनिक एकाइको हिसाबले दरदगण्डकी मण्डल, जसअन्तर्गत ४२ विषयहरु थिए । विषय मण्डलको एक सानो अङ्ग मानिन्थ्यो । चम्पारणका यी दुवै अभिलेखहरु कर्णाटवंशभन्दा पहिलेका हुन । प्रतिहारवंशको सत्ता कमजोर भएपछि यीनीहरु इस क्षेत्रमा आफ्नो सत्ता कायम गरेका थिए । यी दुवै अभिलेखहरुमा निम्नलिखित प्रशासनिक शब्दावलीहरु पाइन्छ ।

(१) राणक (२) ठाकुर (३) अमात्य (४) पुरोहित (२१) चाटभाट आदि” । (चौधरी, सन २०१०, पृ. १६३)

वि.स. १०७७ चैत्रशुक्ल चतुर्दशी तदनुसार ११ मार्च १०२० ईस्वीको राजा सूर्यादित्यको ताम्रपत्र विकिपिडियामा पनि हेर्न सकिन्छ । बगहा ताम्रपत्रको नाउँले सर्च गर्दा सहजै पाउन सकिन्छ । (एचआई. विकिपिडिया.ओआरजी) ।

यी तथ्यहरुको आधारमा दशौँ एघारौँ शताब्दीतिर यस क्षेत्रमा माल्यकेतुका वंशजहरुको शासन भएको दरौँदीगण्डकी देश अस्तित्वमा आएको र त्यस अन्तर्गत ४२ वटा विषयहरु

रहेको जसमध्ये पञ्चा नदी किनारको पञ्चावतविषय सबभन्दा समृद्ध र राजधानीसमेत भएकोले यसलाई पञ्चावतदेशविषय भनिएको हो । सिमरौनगढमा नान्यदेवको राज्य कायम भएपछि सन १११४ई. पश्चात राजा कीर्तिपालको समयमा गोविन्दचन्द्र गाहडवालले यसलाई आफ्नो राज्यमा एकीकृत गरेका थिए । यो कुरा एपिग्राफिकाइण्डिकाअंक ७ मा प्रकाशित कीर्तिपाल र गोविन्दचन्द्रको ताम्रपत्रबाट ज्ञात हुन्छ । राजा अरिमल्लदेवको समयमा यस विषयका प्रशासकको रूपमा राणक जस्तो उच्च पदमा श्रीधरसिंह आसीन थिए ।

यसरी श्रीधरसिंह राणक पद धारण गरेका व्यक्ति हुन राणमगर होइनन् । अर्को कुरा उनी नेपालकै पञ्चानदी किनारमा अवस्थित पञ्चावतदेश विषयका राणक पदमा रहेका व्यक्ति हुन पञ्जाबी होइनन् । यस राणकको सम्बन्धमा खोजी गर्दा श्रीधरसिंहभन्दा १०८ वर्ष पहिले जीवधरसिंह कायस्थ यस दरौंदीगण्डकी क्षेत्रको गण्डीगुल्मविषयमा शक्तिशाली रहेको कुरा हर्षदेवको पालाको पुष्पिकावाक्यबाट प्रष्ट हुन्छ । “सम्बत २१३ श्रीहर्षदेव राजे गण्डिगुल्मविषये कुलपुत्र कायस्थ श्रीजीवधरसिंहस्य पुस्तकमिति”(बज्राचार्य, वि.स. २०६६, पृ. ६४) । यसरी गण्डीगुल्म विषयमा कायस्थहरु प्रवेश गरीसकेका थिए र प्रशासनमा तिनिहरुको महत्वपूर्ण स्थान थियो । यी जीवधरसिंहका वंशजहरु नेपाल उपत्यकामा प्रशासनिक पदमा रहेका थिए । जसको प्रमाणको रूपमा त्यस बेलाका अभिलेख र पुष्पिकावाक्यहरुलाई लिन सकिन्छ । ने.स.२४७ मा राजा भएका इन्द्रदेवको समयको अभिलेखमा कायस्थ जयचन्द्र वर्माको उल्लेख यसरी गरीएको छ । “राजाधिराज परमेश्वरपरम भट्टारक श्रीमत् इन्द्रदेवस्य विजयराज्ये कायस्थ कुलज जयचन्द्रवर्मणा लिखितमिति ॥० ॥” (शाक्य र वैद्य, सन १९७०, पृ. १०) त्यसैगरी कायस्थ जीवधरसिंहका वंशज रत्नाकरसिंहले ने.स. २६०(ई.स. ११४०) मा सुनको जलप लगाएका दुईवटा तामाका घडाहरु चाँगुनारायणलाई चढाएका थिए । ति घडाहरुमध्ये एउटा अद्यावधि चाँगुनारायणमा छँदैछ । ज्ञानमणि नेपालको शब्दमा “ने.स. २६० मा चतुर्थ मानदेवले राज्य गरिरहेको समयमा भक्तपुरका रत्नाकरसिंहले सुनको जलप लगाएका दुईवटा तामाका घडा चाँगुनारायणलाई चढाएको वर्णन गरीएको छ । ति घडाहरुमध्ये एउटा अद्यावधि छँदैछ ।” (नेपाल, वि.स.२०५४, पृ.७९) । त्यस घडामाथिको अभिलेखमा वर्णन गरीएका कुरा वीरेन्द्रप्रसाद कायस्थले लेखेका छन् । उनी लेख्दछन् “ने.स. २६० कार्तिक शुक्ल पुर्णिमाको दिन राजा मानदेव (चतुर्थ) को पालामा भक्तपुर खौमाटोलमा बसोबास गर्ने कास्त नायक (कायस्थ)का छोरा रत्नाकरसिंहले चाँगुनारायणमा आफ्नो छोरा रामजनसिंहको दीर्घायु सुख आनन्दको कामना गर्दै सुनको जलप लगाएको तामाको कलश एक जोडा चढाएका थिए ।” (कायस्थ, वि.स.२०८१ असार २१, सेतोपाटी)

यहाँ अभिलेखमा स्पष्ट रूपमा जीवधरसिंहका वंशज भनी उल्लेख नगरीएपनि ने.स.२१३ मा नेपालका राजा हर्षदेवद्वारा नियुक्त गरीएका गण्डीगुल्मविषयका प्रशासक कायस्थ कुलज जीवधरसिंहको परिवार उपत्यकामा प्रभावशाली रहेको देखिन्छ । त्यहि भएर ३४ वर्षपछि राजा भएका इन्द्रदेवको समयमा अर्का कायस्थ कुलज जयचन्द्रवर्मा प्रशासनमा देखिएका छन् र

ने.स. २६० मा भक्तपुरको खौमाटोलमा बसोबास गर्ने कायस्थ कास्त नायकका छोरा रत्नाकरसिंह रहेको देखिन्छ । यी कायस्थ परिवारहरु उपत्यकामा प्रभावशाली रुपमा उपस्थित देखिन्छन् । यसै रत्नाकरसिंह र रामजनसिंहका वंशज श्रीधरसिंह हुन सक्ने प्रबल सम्भावना देखिन्छ । सामन्तवादी शासनव्यवस्था भएको त्यस युगमा उच्चकुलका दक्ष व्यक्तिहरुलाई प्रशासनिक पदमा नियुक्त गरिन्थ्यो । जीवधरसिंह कायस्थको परिवार उच्च शिक्षित र सांस्कारिक देखिएको साथै दक्षिण सिमरौनगढसित बलियो सम्बन्ध भएकोले दक्षिण चितवन क्षेत्रको पञ्चावतविषयको राणक पदमा श्रीधरसिंहलाई नियुक्त गरेका थिए । त्यसबेला बंगाल, तिरहुत र नेपालमा कायस्थहरु प्रशासनमा रहेको तथ्य पाइन्छ । बंगालमा लक्ष्मणसेनका महामाण्डलिक श्रीधरदास कायस्थ, तिरहुतमा हरिसिंहदेवका मन्त्री सूर्यकर कायस्थ र नेपालमा रत्नाकरसिंह कायस्थको इतिहासमा प्रभावशाली उपस्थिति देखिन्छ । त्यसैले यी पञ्चावतदेशषियका राणक राणमगर नभई गण्डीगुल्मविषयका कुलपुत्र कायस्थ जीवधरसिंहको वंशज रहेको तथ्य पुष्टि हुन आउँछ ।

श्रीधरदासको वंशावली

तिरहुतमा ई.स. १०९७ मा नान्यदेवले सिमरौनगढमा दरबारको गृहवास्तु गरेपछि शक्तिशाली राज्यको रुपमा काठमाडौं उपत्यका नजिकै कणार्ठवंशको शासन स्थापित भयो । यस राज्यका शक्तिशाली मन्त्रीको रुपमा प्रसिद्ध श्रीधरदास नेपाली भारतीय दुवै देशको एघारौं बाह्रौं शताब्दीको इतिहासमा विशिष्ट स्थान राख्दछ । अतः यस श्रीधरदासको वंशपरीचय खोज्नु आवश्यक देखिन्छ । माथि उल्लेख गरीएका सर्वाकर पुत्र श्रीधरदास र वटुपुत्र श्रीधरदासका अतिरिक्त यस वंशमा अरु दुईवटा श्रीधर गरी चारवटा श्रीधर देखिन्छन् । मेजर विनोदबिहारी बर्माले आफ्नो अनुसन्धानात्मक ग्रन्थ 'मैथिल करणकायस्थक पाँजिक सर्वेक्षण'मा इशाको आठौं शताब्दीको मंग्यदासदेखि तेह्रौं शताब्दीको वटुपुत्र श्रीधरदाससम्म पन्ध्र पुस्ताका वंशावलीमा चारवटा श्रीधरको उल्लेख गरेका छन् । उनले आफ्नो उक्त शोधपूर्ण ग्रन्थमा गौड कायस्थ मंग्यदासलाई शूर राजाको अधीन उत्तरराठ क्षेत्रमा सीमान्त प्रदेशको रक्षा गर्दै आएको कुरा उल्लेख गरेका छन् । इतिहासकार रङ्गनाथ दिवाकरले मेजर बर्माको आधारमा श्रीधरदासको वंशावली यसप्रकार उल्लेख गरेका छन् ।

मंग्यदास - टंकपाणि - चक्रपाणि - (क) शुरपाणि र (ख) धीरपाणि -+

(क) शुरपाणि -श्रीधर (प्रथम) - (क) भूधर -+ र (ख) गदाधर

(ख) गदाधर - राज्यधर - श्रीधर द्वितीय (प्र. लक्ष्मीकर) - शूलपाणि (प्र. वंशीदास) -(क) पिनाकपाणि र (ख) चक्रपाणि द्वितीय (प्र. सर्वाकर)

(क) पिनाकपाणि - टंकपाणि द्वितीय - रत्नपाणि - नरसिंह - (क) वटुदास र (ख) पाटुदास

(क) वटुदास - श्रीधरदास चतुर्थ र भूवन

(ख) चक्रपाणि द्वितीय (प्र. सर्वाकर) - श्रीधर तृतीय (प्र. देवधर) - बोधिदास - आनन्दकर - चन्द्रकर - सूर्यकर - प्रीतिकर - अमृतकर (दिवाकर, २०२३, पृ. २६)

उपर्युक्त वंशावली दिदै मेजर बर्माले सर्वाकर पुत्र देवधर प्र. श्रीधर तृतीयलाई नान्यदेवका मन्त्री मानेका छन् । दिवाकर अगाडि लेख्दछन् “श्रीधरको शिलालेख र सद्भक्तिकर्णामृतको प्रस्तावनाबाट प्रष्ट हुन्छ कि वटुपुत्र श्रीधर नान्यदेवका मन्त्री थिए । मंग्यदासदेखि वटुपुत्र श्रीधरदाससम्म ११ पुस्ताको वर्णन मिथिला बंगालमा पाइन्छ” (दिवाकर, २०२३ई., पृ. २६)

अब माथि उल्लेखित वंशावलीमा चारवटा श्रीधर देखिन्छन् । जसमा सर्वाकर पुत्र देवधर प्र. श्रीधर तृतीय वंशावली तालिकीकरण गरी गणना गर्दा एघारौं पुस्तामा पर्दछन् भने वटुपुत्र श्रीधर पन्ध्रौं पुस्तामा पर्दछन् । लिपिकारले एघारौं पुस्ताका सर्वाकर पुत्र श्रीधरलाई चौथो र वटुपुत्र श्रीधरलाई तेस्रो भनी लेखिदिनाले पनि भ्रम सिर्जना गरीदिएको छ । जसले गर्दा मेजर बर्माले सर्वाकर पुत्रलाई नान्यदेवको मन्त्री मानेका छन् भने दिवाकरले वटुपुत्र श्रीधरलाई मानेका छन् । माथिका वंशावली र नान्यदेव तथा लक्ष्मणसेनको समय मिलान गर्दा मेजर बर्माले उल्लेख गरेका देवधर प्र. श्रीधर नान्यदेवको मन्त्रीको रूपमा देखिन्छन् भने वटुपुत्र श्रीधर लक्ष्मणसेनको महामाण्डलिक ठहरिन्छन् । दुवै राजाको अभिलेख र पुष्पिकावाक्यको विचमा १०८ वर्षको फरक देखिन्छन् । यी १०८ वर्षको फरकमा चार पुस्ताको अन्तर स्वभाविक देखिन्छ । अतः नान्यदेवका मन्त्री एघारौं पुस्ताका र लक्ष्मणसेनका महामाण्डलिक पन्ध्रौं पुस्ताका श्रीधर गरी दुई भिन्दाभिन्दै श्रीधरहरु रहेको कुरा पुष्टि हुन्छ ।

निष्कर्ष

माथिको वंशावली अध्ययन गर्दा आसाम र बंगालमा आफ्नो प्रभाव जमाएर बसेका मंग्यदासका वंशजहरु चालुक्य शासकको उत्तरी विजय अभियानसँगै बंगालका सेनहरुको र नान्यदेवको सैनिक अभियानमा सामेल भएका थिए । जसमा शूलपाणिका दुई दाजुभाई छोराहरुमध्ये जेठा पिनाकपाणि सेनहरुको सेवामा रहे । पिनाकपाणिपछि क्रमशः टंकपाणि, रत्नपाणि, नरसिंह, वटुदास र श्रीधरदास गरी पिनाकपाणिपछिको पाँचौं पुस्ताका श्रीधरदासम्म बंगालमा सेनहरुको सेवामा देखिन्छन् । यसैगरी शूलपाणि प्र. वंशीदासका कान्छा छोरा चक्रपाणि वा चक्रधर जो सर्वाकरको नाउँले पसिद्ध भए, उनी कर्णाटवंशी नान्यदेवको छत्रछाँयामा सेवारत रहे । पिनाकपाणिका कान्छा भाइ चक्रपाणिका छोरा देवधर वंशीदासका नाति र पिनाकपाणिका भतिजको रूपमा देखिन्छ । बुवा चक्रपाणि नान्यदेवको सेवामा रहेकोले देवधर नै नान्यदेवको मन्त्री श्रीधरको रूपमा प्रसिद्ध रहेको देखिन्छ । यस श्रीधरको चौथो पुस्ताका वंशज सूर्यकरको समकालीन बंगालका वटुपुत्र श्रीधर देखिन्छन् । यसैगरी नेपालमा राजा अरिमल्लको शासनको प्रारम्भसँगै राणक श्रीधरसिंहको उदय भएको पनि देखिन्छ । कतिपय विद्वानहरुले उनलाई तिरहुत र बंगालका श्रीधरको रूपमा देखाउन खोजेपनि उनी तिरहुतबाट बसाइ सरेर गण्डीगुल्म विषय हुँदै नेपाल प्रवेश गरेका जीवधरसिंहका वंशज

देखिन्छन् । ने.स. २६० (ई.स.११४०) तिर नेपाल उपत्यकामा प्रभावशाली व्यक्तिको रूपमा रहेका कायस्थ रत्नाकरसिंह रामजनसिंहका परिवारहरूले आफ्नो दक्षिणतिरको सम्बन्धका कारण उत्तैतिरका मूल बासिन्दा रहेका मल्लहरूको प्रतिनिधि पात्र अरिमल्ललाई सत्तामा पुर्याउन सहयोग गरी आफ्नो शक्ति भन्नु सुदृढ गरेर ई.स.१२०० तिर उनलाई राजसिंहासनमा पुर्याएर श्रीधरसिंहलाई पञ्चावतदेश विषयका राणक पद दिलाउन सफल भएको पाइन्छ ।

अतः तिरहुत र बंगालका दुई फरक श्रीधरहरू एउटै मंग्यदासका वंशज देखिन्छन् भने पञ्चावतदेश विषयका राणक श्रीधरसिंह गण्डीगुल्मविषयका जीवधरसिंहका वंशज देखिन्छन् । यी तीनवटै श्रीधरहरू आ-आफ्ना समयका इतिहास प्रसिद्ध व्यक्तिहरू हुन् । तीनैजनाले आ-आफ्नो समयमा राजालाई आफ्नो विद्वताले सहयोग गरेर शासनसत्तामा महत्वपूर्ण स्थान ओगटेको देखिन्छ । अझ पञ्चावतदेश विषयका राणक श्रीधरसिंह त नेपालमा राजवंश परिवर्तनमा नै महत्वपूर्ण भूमिका निर्वाह गरेको देखिन्छ । जसबाट अरिमल्लले नेपालमा मल्लवंशको शासनसत्ता स्थापित गरे । यसरी तीनैजनाश्रीधरको आ-आफ्नै महत्व रहेको छ । तीनैजनाले आ-आफ्नो ठाउँको इतिहासमा अमिट छाप छोडेका छन् ।

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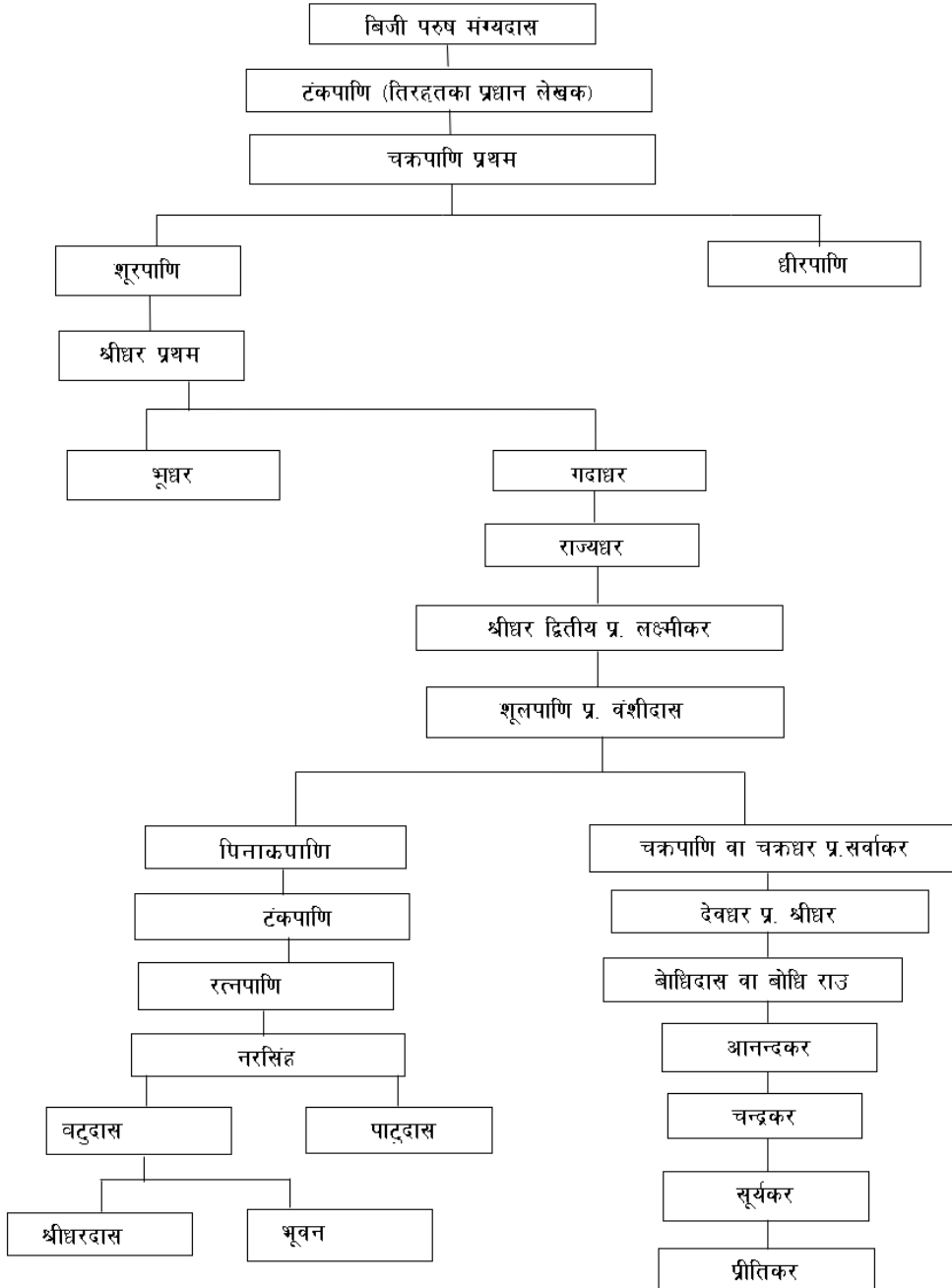
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परिशिष्ट

यो तालिका मेजर विनोदबिहारी बर्माले दिएको श्रीधरदासको पञ्जीको आधारमा तयार गरीएको छ ।



नेपाल तराई कांग्रेसको इतिहास

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वि.सं. २००७ सालको परिवर्तनपछि क्रान्तिमा सहभागी मधेसी मूलका नेताहरूले तराईलाई प्रान्तीय ढाँचामा लाने प्रस्ताव राख्दा कांग्रेसी नेतृत्वले अस्वीकार गरेपछि कूलानन्द भा, रामजनम तिवारी, श्यामलाल मिश्र लगायतका नेताहरूको अगुवाइमा वि.सं. २००८ सालमा नेपाल तराई कांग्रेसको स्थापना भएको हो। नेपाल तराई कांग्रेसले स्वायत्त तराई राज्यको स्थापना गर्ने, हिन्दीलाई राज्यको भाषाको मान्यता दिलाउने र निजामति सेवामा पर्याप्त मात्रामा तराईका मानिसहरूको नियुक्ति गराउने उद्देश्य राखेको थियो। नेपाल तराई कांग्रेसको सन् १९५७ मे २९ मा बसेको पार्टीको तेस्रो बैठकले तराई क्षेत्रलाई क्षेत्रीय स्वायत्तता दिनुपर्ने प्रस्ताव पारित गरेको थियो। वि.सं. २०१५ सालको चुनावी अभियानमा नेपाल तराई कांग्रेसबाट उठेका २१ जना उम्मेदवार सबै पराजित भएका थिए। वेदानन्द भा राजा महेन्द्रसंग दर्शन भेट गरेर उनको समर्थनमा लागेर पञ्चायतकालमा पटक पटक मन्त्री र भारतका लागि राजदूत समेत भएका थिए। यता महासचिव रामजनम तिवारी, श्यामलाल मिश्रासहितका नेताहरू विरोधमा लागेर रक्सौल गएर सानो सम्मेलन गरी प्रजातन्त्र ल्याउनका लागि नेपाली कांग्रेसका नेता सुवर्ण शमशेर जबरा मार्फत तराई कांग्रेस पार्टीलाई नेपाली कांग्रेसमा

विलय गराए। राजाको निगाहमा रमाउने वेदानन्द प्रवृत्ति अहिले पनि मधेसमा यताकदा देखिन्छ। यसले गर्दा मधेसी समुदाय अहिले पनि विभिन्न मागहरू राखि संघर्ष गरिरहेका छन्।

शब्दकुञ्जी: आत्मनिर्णय, खप्पिस, जमिन्दार, देवनागरी, स्वायत्तता।

परिचय

वि.सं. २००८ सालमा खुलेको नेपाल तराई कांग्रेस पार्टीले तराईमा स्वायत्तता, हिन्दीभाषालाई दोस्रो भाषाको रूपमा मान्यता दिनका लागि गरेको भाषा आन्दोलन र मधेसी मूलका नागरिकलाई प्रशासनमा सम्मान जनक भागीदारीको अभियान नै छेडेको थियो। यति राम्रा मागहरू राखेर जन्मिएको पार्टी वि.सं. २०१५ सालको निर्वाचनमा आएको परिणामले छिन्न भिन्न हुन पुगेको थियो। पार्टीका कोही नेपाली कांग्रेसमा त केही बामपन्थी सोच भएकाहरूले सशस्त्र संगठन नै खोलेका थिए। वेदानन्द भा पञ्चायतमा प्रवेश गरेर मन्त्री र भारतीय राजदूत भएर मधेसी नेताको रूपमा उदाएका थिए। यसले मधेसका नेताहरूको तुलामुले चरित्रले कसरी मधेसमा खुलेको नेपाल तराई कांग्रेस सानो अवधिमा विभिन्न पार्टीमा विलय हुन पुगेको थियो? भन्ने बुझ्नका लागि पार्टी गठन भएदेखि यसको विलय भएसम्मको अवधिमा गरेका गतिविधिहरूको विश्लेषण गरेर यो अनुसन्धानात्मक लेख तयार गरिएको छ।

विधि

यस अनुसन्धानात्मक लेखका लागि तथ्यहरु संकलन गर्नका लागि पूर्वप्रकाशित पुस्तक, जर्नलमा आएका लेखहरु, पत्रपत्रिका, अनलाइनमा आएका लेखहरु र नेपाल तराई कांग्रेसका अध्यक्षसंगको संगतमा रहेका वा उक्त पार्टीका बारेमा जानकारी पाएकाहरुसंग प्रत्यक्ष अन्तर्वार्ता लिएर गरिएको छ। प्राथमिक तथ्याङ्क संकलनका लागि वेदानन्द भालाई राजा महेन्द्रसंग दर्शनभेट गराउने विश्वबन्धु थापासंग अन्तर्वार्ता लिइएको छ भने द्वितीय तथ्याङ्क सङ्कलनका लागि पुस्तक, अनुसन्धानात्मक लेख, पत्रपत्रिका र अनलाइनमा प्रकाशित लेखहरुबाट सङ्कलन गरिएको छ। ऐतिहासिक आधारमा व्याख्या विश्लेषण गर्दै नयाँ ज्ञानको खोजि गरिएको छ।

नेपाल तराई कांग्रेसको स्थापनाकालिन अवस्था

नेपाल तराई कांग्रेसको स्थापना वि.सं. २००८ सालमा भएको थियो। सिरहाको बस्तीपुरमा पहाडी समुदायको रक्षाका लागि गठन भएको किराँती दलको गतिविधिबाट सुरक्षित रहन वि.सं. २००८ सालमा तत्कालिन सप्तरी जिल्ला हाल सिरहा जिल्लाको कल्याणपुर जब्दीको बजारमा रहेको महादेव मन्दिर धर्मशालामा मधेसीहरुको एउटा भेला भएको थियो (यादव, २०७० : ८०)। बस्तीपुर तर्फबाट बेलाबेलामा दक्षिणभेगमा आएर हुलहुज्जत गर्ने किराँती दलबाट सुरक्षित हुन डाकिएको उक्त भेलाको अध्यक्षता सुब्बा औरहीका बलदेव देसा यादवले गर्नुभएको थियो (यादव, २०७०)। बैठकले सर्वसम्मतिले देउरीपट्टीका कुलानन्द भालाई नेपाल तराई कांग्रेसको अध्यक्ष चयन गरेको थियो (यादव, २०७० : ८०)। यस पार्टीको स्थापना गर्ने तत्कालिन सप्तरी जिल्ला र हाल सिरहा जिल्लाका वासिन्दा कुलानन्द भा र वेदानन्द भा दुवै दाजुभाइ हुन्। यसमा राम जनम तिवारी, श्यामलाल मिश्र र बलदेव दास यादवसमेत साथमा थिए। उपेन्द्र यादवले बलदेव दास यादव र कुलानन्द भाले सन् १९५१ मा गरेका थिए (यादव, सन् २००३ : १०३)। वि.सं. २००७ सालको परिवर्तनपछि क्रान्तिमा सहभागी मधेसी मूलका नेताहरूले कांग्रेससमक्ष तराई-मधेसबारे छुट्टै अवधारणा प्रस्तुत गरे। प्रजातान्त्रिक युगमा तराईलाई प्रान्तीय ढाँचामा लैजानुपर्ने मधेसी मूलका कांग्रेसीहरूको माग थियो, जसलाई तत्कालीन कांग्रेसी नेतृत्वले अस्वीकार गरेपछि कुलानन्द भा, रामजनम तिवारी, श्यामलाल मिश्रलगायतका नेताहरूको अगुवाइमा वि. सं. २००८ सालमा तराई कांग्रेसको स्थापना भएको हो। यो नेपालमा मधेस राजनीतिको उद्गम बिन्दु थियो भन्न सकिन्छ।

कुलानन्द भा अस्वस्थ भएपछि उनका भाइ वेदानन्द भाले नेपाल तराई कांग्रेसको नेतृत्व लिएका थिए। नेपाल तराई कांग्रेसका गतिविधिलाई प्रभावकारी ढङ्गले अगाडी बढाउन राम्रो अंग्रेजी बोल्ने तथा भारतको पटनाबाट प्रकाशित हुने अङ्ग्रेजी पत्रिका द इन्डियन नेशन र हिन्दी दैनिक आर्यावर्तको उपसम्पादक रहेका कुलानन्द भाका साँहिला भाइ वेदानन्द भालाई बोलाएर पार्टीको अध्यक्ष बनाएको थियो (यादव, २०७० : ८१)। वि. सं. २०१३ सालमा तत्कालीन सरकारले नेपालमा शिक्षाको मुख्य भाषा नेपाली लागू गरेपछि तराई कांग्रेसले तराईमा हिन्दी आन्दोलन नै सुरु गरेको थियो। त्यसअघि तराईमा पनि हिन्दी भाषामै पढाइ हुने गरेकोले पनि हिन्दी भाषाको समर्थनमा आन्दोलनले जोडतोड लिएको थियो। यसबाट नेपाल तराई कांग्रेसको स्थापनामा कसैले वेदानन्द भाको अगुवाई रहेको बताएका छन् भने कसैले कुलानन्द भाको अगुवाई रहेको बताएका छन् भने कसैले बलदेव दास यादव र कुलानन्द भाको नाम लिएका छन्। तर त्यो पार्टीमा हताकर्ताका रुमा भने वेदानन्द भा नै

रहेको देखिन्छ। उनलाई सोही पार्टीको नेताका रूपमा राजा महेन्द्रले प्रचार सहायक मन्त्री समेत बनाएको प्रसंग तत्कालिन गृहमन्त्री विश्वबन्धु थापाले गरेका छन्। राजा महेन्द्रले सत्ता हातमा लिएपछि जेल परेका वेदानन्द भासंग तराईमा भेट भएको र उनलाई काठमाडौं आउन भनेर राजा महेन्द्रसंग भेट गराएर आफ्नो अधिनमा रहेको प्रचार विभागको सहायक मन्त्री बनाएको विश्वबन्धु थापाले बताएका छन् (विश्वबन्धु थापा, अन्तर्वार्ता, २०८१ असार ३०, काठमाडौं)। थापाको यो भनाइबाट वेदानन्द भा नै नेपाल तराई कांग्रेसको अध्यक्ष थिए भन्न सकिन्छ।

नेपाल तराई काङ्ग्रेसले स्थापना कालमा तीनवटा सैद्धान्तिक उद्देश्यहरू घोषणा गरिएको थियो। पहिलो तराई प्रदेशलाई एक पृथक स्वायत्त राज्यको स्थापना गर्ने। दोस्रो, तराईमा बोलिने हिन्दीभाषालाई राज्य भाषाको रूपमा मान्यता दिलाउने र तेस्रोमा नेपालको नागरिक सेवामा मधेसीहरूको उचित प्रतिनिधित्व अर्थात् साभेदारी दिलाउने तथा मधेसीलाई एक पृथक तराई रेजिमेन्ट बनाउन संघर्ष गर्ने (यादव : सन् २००३ : १०३)। यी मागहरू हेर्दा मधेसलाई एउटा स्वशासित क्षेत्र बनाउने माग केही कडा भएपनि अन्य दुईभागहरू मधेसमा बस्ने जनसंख्याले बुझ्न सहज हुने हिन्दीभाषाको मान्यता माग्न र सरकारी निकायहरूमा प्रतिनिधित्व माग्न जायज थिए।

राणा शासनको अन्त्य संगसंगै नेपाल तराई कांग्रेस पार्टी खुल्नुमा २००७ सालको आन्दोलनमा नेपालमा मधेसमूलका नेता, कार्यकर्ताहरूले पनि सहयोग गरेका थिए। सहयोग गर्ने एलिट वर्गका मधेसीहरूले जब राष्ट्रिय राजनीतिमा पहुँच पाएनन् तब उनीहरू रुष्ट भएर नै मधेसीमूलका मानिसहरू आफै राजनीतिक पार्टी खोल्न बाध्य भएको देखिन्छ। त्यसअनुसार तराई काङ्ग्रेसले मधेसको प्रतिनिधित्व गरिरहेको थियो भन्ने देखाउँछ।

अझ सन् १९५४ मा राष्ट्रिय शिक्षा योजना आयोगको गठन भएपछि नेपालको राष्ट्रिय शिक्षा प्रणालीको विकास गर्ने कामको थालनी भयो र यसले सन् १९५६ मा नेपालमा शिक्षा नामक प्रतिवेदन सार्वजनिक गरेको थियो। यसले दिएका धेरै सुधारहरूमध्ये नेपाली भाषालाई शिक्षाको माध्यम बनाउने नीतिलाई कार्यान्वयन गरियो। तराईका जनतामाथी नेपाली भाषा थोपरिएको कुराको विरोधमा सन् १९५१ को सुरुमै मानिसहरूको मनमा एक किसिमको विरोधको भावना जागृत भइसकेको थियो (गेज : सन् २०१३ : १२४)। सोही सालमा वेदानन्द भाको नेतृत्वमा नेपाल तराई काङ्ग्रेस गठन भयो। वेदानन्द भाले नेतृत्व गरेको नेपाल तराई काङ्ग्रेस स्थापना गर्नुका विभिन्न कारणहरू छन्। त्यसमध्ये अर्को तराई कांग्रेसका उत्पत्तिका कारणका बारेमा फ्रेडरिक गेजले भनेका छन्, 'शाह र राणाकालमा तराईलाई अर्धउपनिवेशका रूपमा राखिएकाले नै तराई काङ्ग्रेसको उत्पत्ति भएको हो (गेज:सन् २०१३ : १२४)। उपेन्द्र यादवले उल्लेख गरेजस्तै नेपालको मधेसबारेमा अनुसन्धान गरेका विदेशी अनुसन्धानकर्ताले पनि नेपाल तराई कांग्रेसले आफ्ना तीन उद्देश्यहरू यसप्रकार उल्लेख गरेका थिए :

१. स्वायत्त तराई राज्यको स्थापना गर्ने।
२. हिन्दीलाई राज्यको भाषाको मान्यता दिलाउने
३. निजामति सेवामा पर्याप्त मात्रामा तराईका मानिसहरूको नियुक्ति गराउने (गेज, सन् २०१३ : १२४)। गेजले उक्त सूचना स्टेटम्यानका ४ मे १९५३ को पेज ७ बाट लिएको देखाएका छन्।

नेपाल तराई कांग्रेसले हिन्दी भाषालाई तराईको सरकारी मान्यता भाषाको रूपमा मान्यता दिनुपर्ने माग गरेको थियो (माथेमा, सन् २०११ : ५) । यस मागको पक्षमा मधेसभरी आन्दोलनहरू भएका थिए । बेदनन्द झा पहिले नेपाली कांग्रेस थिए । उनी नेपाली कांग्रेसबाट अलग भएर तराई कांग्रेस गठन गरे । यो तराई/मधेशमा आधारित क्षेत्रीय पार्टी थियो । वि.सं. २००७ सालपछि नेपालमा मधेसीहरूले संस्थागत रूपमा आफ्नो हकअधिकारको लागि मागहरू राख्न थालेको पाइन्छ । राणाकाल भरी मधेसीहरूले आफ्नो हक अधिकारका लागि आन्दोलन गरेको भएपनि

तराईवासीलाई नेपालको सरकारी सेवा उपलब्ध गराउन पैरवी गर्ने तथा नेपाल देशभित्र तराईलाई क्षेत्रीय स्वायत्तता र स्वशासन दिने सवाललाई प्रमुख रूपमा उठाएका थिए ।

मधेसमा राणा काल र शाह कालमा उपनिवेशिक शासन जस्तै गरि परतन्त्रको अवस्थामा रहनु परेको थियो । छोटो समयमा नै नेपाल तराई कांग्रेस नेपालको दक्षिणी भूभागको मधेस क्षेत्रमा क्षेत्रीय पार्टीका रूपमा खुबै प्रभावकारी रहेको थियो (यादव, सन् २००३ : १०३) । तराईवासीलाई आधारभूत नागरिक अधिकार र मानव अधिकारबाट समेत बन्चित गरेको देखिन्थ्यो । तराईका भूमिहीन जनताहरू दुःख भोगिरहेका थिए भने देशो ९० प्रतिशत जग्गा जमिन्दार र विर्तावालहरू सबै काठमाडौँमा बस्नदथे (यादव, २००३ : १०३) ।

मधेसमा अनुपस्थित जमिन्दारको विरुद्धमा मधेसका किसानहरूको आक्रोश बढी रहेको सन्दर्भमा नेपाल तराई कांग्रेसले यो असन्तुष्टिको नेतृत्व लिने प्रयत्न गरेको थियो (यादव, सन् २००३ : १०४) । मधेसी जनताको पक्षमा आन्दोलन गर्ने भएकोले मधेसमा स्थापना भएको दुई वर्ष अर्थात् १९५३ भित्र ६० हजार सदस्य संख्या भइसकेको थियो (यादव, सन् २००३ : १०४) ।

यो पार्टीलाई तराईको शक्तिको रूपमा हेर्न थालियो । विरोधीहरूले नेपाल तराई कांग्रेसलाई संकुचित विचार भएको, साम्प्रदायिक र विखण्डनकारी पार्टीको रूपमा धेरै प्रचार प्रसार गरेको थिए । यस पार्टीलाई नेपाललाई भारतको जस्तै हिन्दुस्तान र पाकिस्तानको रूपमा बाँड्ने सडयन्त्रमा थियो भन्ने आरोप लागेकोले मधेसी मूलका बाहेक अरु यसको सदस्य भएनन् ।

२००७ सालको क्रान्तिका बेलामा स्थानीय प्रशासन अस्तव्यस्त भएपछि भण्डै अराजक अवस्था उत्पन्न भएकाले तराई काङ्ग्रेसले नेपाली राष्ट्रिय संरचनाभित्र क्षेत्रीय स्वायत्तताको माग गर्ने हौसला पाएको थियो । दलगत भगडाले सरकार निकम्मा भएकाले तराई काङ्ग्रेसका नेताहरूले चर्का माग राख्दा राज्यले दमन गर्ला भनेर डराउनु नपरेकाले पनि पहिलो मागमै स्वयत्त तराईराज्यको स्थापना गर्ने भन्ने राखिएको थियो (गेज, सन् २०१३ : १२४) । यी मागहरूले गर्दा नेपालमा मधेसीहरूको बर्चस्व बढाउन एउटा आधार तयार पार्न नेपाल तराई काङ्ग्रेस सफल भएको थियो ।

स्थापना पछिको रस्साकस्सी

नेपाल तराई कांग्रेस गठन त भयो । हिन्दी भाषाका लागि मधेसभरी विभिन्न आन्दोलनहरू गरे । विस्तारै काठमाडौँका नेताहरूले नेपाल तराई कांग्रेसको पृथक्तावादी मनोभावको बीजलाई खतराका दृष्टिले हेर्न थाले (गेज, सन् २०१३ : १२४) । स्थानीय प्रशासनमा सरकारले नियन्त्रण कायम गरेपछि, नेपाल तराई काङ्ग्रेसको स्वायत्त राज्यको माग सुनिन छाड्यो र यस मागलाई पार्टीले आफ्ना मागहरूको सूचीबाट हटायो (गेज, सन् २०१३ : १२४) । यसपछि सोही पार्टीले वि.सं.

२००९/२०१० मा सल्लाहकार सभामा मधेसीहरूको उचित प्रतिनिधित्व हुनुपर्दछ भन्ने माग गरेको थियो । वि.सं. २०१४ साल जेठ १६ गते बसेको पार्टीको तेस्रो बैठकले तराईलाई क्षेत्रीय स्वायत्तता दिलाउनुपर्छ भनी माग राखेको थियो (राउत, २०७० : १८६) । नेपाल तराई काङ्ग्रेसले नेपालमा हिन्दीभाषाबाट पठन पाठनमा रोक लगाउँदा वि.सं. २०१३ सालमा हिन्दी रक्षा समिति बनाएर हिन्दीभाषाबाट पठन पाठन हुनुपर्ने माग राख्दै आन्दोलनहरू गरेको थियो ।

नेपाल तराई कांग्रेसको सन् १९५७ मे २९ मा बसेको पार्टीको तेस्रो बैठकले तराई क्षेत्रलाई क्षेत्रीय स्वायत्तता दिनुपर्ने प्रस्ताव पारित गरेका थिए । सन् १९५७ को जुलाईमा राजा महेन्द्रले कुवर इन्द्रजीत सिंहलाई प्रधानमन्त्री नियुक्त गरेपछि, मुख्य रूपमा तीनवटा जवरजस्त निर्णयहरू गरेको थियो जसको पहिलोमा शिक्षा मन्त्रालयबाट अरु भाषामा शिक्षा दिन अनुमति पाएका बाहेक अरु सबै स्कूलहरूले नेपाली भाषामा शिक्षा दिनुपर्ने । दोस्रो, सबै शिक्षकहरूलाई दुई वर्षभित्रमा नेपाली भाषामा पढाउन सक्ने क्षमता हासिल गर्न र तेस्रोमा छ महिना भित्र सबै शिक्षकलाई नेपाली नागरिकताको प्रमाणपत्र पेस गर्न आदेश दियो । (गेज, सन् २०१३ : १२६) । यसपछि नेपाल तराई कांग्रेसले हिन्दी बचाऊ अभियान चलाउने निर्णय गर्‍यो । तराई कांग्रेसको नेतृत्वमा तराईका धेरै शहरहरूमा हिन्दी बचाऊ समिति गठन गरिए (गेज, सन् २०१३ : १२६) । हिन्दी बचाउने आन्दोलनको शुरुवात तराई कांग्रेसले गरेको देखिए पनि यसमा नेपाली काङ्ग्रेस, नेपाल कम्युनिष्ट पार्टी, संयुक्त प्रजातान्त्रिक पार्टी र प्रजापरिषदका नेताहरू पनि यस अभियानमा सहभागी भएका थिए (गेज, सन् २०१३ : १२६) । तराई कांग्रेसले आन्दोलन चर्काएपछि सरकारलेले आफ्नो आदेशलाई केही खुकुलो बनाएर तत्काललाई हाइस्कूल र कलेजहरूमा मात्र नेपाली भाषामा पढाई गर्नुपर्ने र प्रथमिक स्कूलमा अलि पछि मात्र यस्तो गर्न सकिने बताएको थियो । यसबाट पनि आदेशको विरोध गर्न तराई कांग्रेसले छोडेन ।

तराई कांग्रेस कै अगुवाईमा वीरगन्जमा खुलेको हिन्दी बचाऊ समितिले नोभेम्बर ११ सम्ममा सो आदेश सरकारले फर्ता नलिए संङ्घर्ष गर्ने भनेर सरकारलाई अल्टिमेटम दिएको थियो (गेज, सन् २०१३ : १२७) । अल्टिमेटम भित्र सरकारले फिर्ता नलिएकोले अन्य शहरमा रहेका हिन्दी बचाऊ अभियानका समितिलेसमेत वीरगन्जको समितिको आन्दोलनलाई सहयोग गरेकोले देशभर उथलपुथल होला जस्तो गरेर आन्दोलन चर्किएको थियो । आन्दोलन भड्किएपछि राजा महेन्द्रले कुवर इन्द्रजीत सिंहलाई प्रधानमन्त्रीबाट हटाएर आफ्नो हातमा शासन लिएका थिए । शुरुमा राजाले तराईमा चलिरहेको भाषा आन्दोलनले गर्दा प्रधानमन्त्री हटाएको भनेर चर्चा गरेपनि आन्दोलन भने रोकेनन् । हिन्दी बचाऊ अभियानको आन्दोलन गौर, जनकपुर, राजविराज र विराटनगरमा आमसभा, विरोध जुलुस र हडतालहरू भए । सबैभन्दा गम्भीर घटना नोभेम्बर १९ मा विराटनगरमा भयो (गेज, सन् २०१३ : १२७) । विराटनगरमा हिन्दी बचाऊ अभियानमा हजारौंको जुलुस निस्किएको थियो । नेपाली प्रचारिणी सभाले पनि यसको विरोधमा जुलुस निकाल्यो । दुवै थरी आमनेसामने हुँदा भएको भगडा र लुटपाट रोकन प्रहरीले हस्तक्षेप गरेको थियो । त्यस घटनामा कम्तिमा २५ जना मानिसहरू घाइते भएका र तीमध्ये केही गम्भीर घाइते भएका थिए ।

विराटनगरको घटनापछि नेताहरूले पाठ सिकेर र मधेसमा हुने आन्दोलनमा होसियारी अपनाउन थाले । तराई कांग्रेसको हातबाट उक्त आन्दोलनलाई आफ्नो हातमा लिनका लागि अन्य पार्टीहरूले त्यसलाई समर्थन गर्ने र आफ्नो मागमा समावेश गर्न थाले । भाषाका लागि गरिएको आन्दोलन

विस्तारै संयुक्त प्रजातान्त्रिक मोर्चाको आन्दोलनतर्फ समावेश भएर आन्दोलन गर्न थाले। भाषाविवादलाई नेपाली काङ्ग्रेस, नेपाली राष्ट्रिय काङ्ग्रेस र प्रजापरिषदले पनि एउटा गुनासाका रूपमा उठाउन थालेकाले हिन्दी भाषाका कट्टर समर्थकहरु समेत राजा महेन्द्रले छिटो छिटो परिवर्तन गरिरहने सरकारले भन्दा जन निर्वाचित सरकार आफ्नो मागप्रति सम्बेदनशील हुने आशा गर्दै हिन्दी भाषाको पक्षलाई लागेकाहरु राजा महेन्द्रलाई दवाव दिन गठान भएको संयुक्त प्रजातान्त्रिक मोर्चाको कट्टर समर्थक भएर अघि बढेको पाइन्छ (गेज : सन् २०१३ : १२८)। तराई कांग्रेसले हिन्दी र नेपाली भाषालाई राष्ट्रभाषा बनाउनुपर्दछ भन्यो। तराई कांग्रेसको चुनावी घोषणा पत्रमा नेपाली भाषालाई गोर्खाली भाषाको संज्ञा दिएको थियो (गेज, सन् २०१३ : १३७)। भारतको रक्सौलबाट सन् १९५७ मा नेपाल तराई कांग्रेसले निकालेको घोषणापत्रमा हिन्दी तराईभरका मानिसले बुझ्ने एउटैमात्र भाषा भएको दावी गरेको थियो। राजा महेन्द्रका पालामा बनेको नयाँ संविधानको एउटा धारामा 'देवनागरी लिपिमा लेखिएको नेपाली भाषा नेपालको राष्ट्रभाषा हुनेछ' भनि लेखिएको थियो। यसले चुनावभन्दा पहिले नै भाषाको विवादको एक किसिमले अन्त्य गरि दिएको थियो। हिन्दी भाषालाई दोस्रो राष्ट्रभाषा बनाउन तराई काङ्ग्रेसले गरेको प्रयासलाई कमजोर बनाउनुका साथै क्षेत्रीय भाषाहरुको उल्लेख समेत नगरी तिनको अवमूल्यन पनि गर्‍यो (गेज, सन् २०१३ : १३८)। भाषा सम्बन्धी राजाकै निर्णय आइसकेपछि तराई कांग्रेसमार्फत भाषा आन्दोलनमा लागेकाहरु पनि विस्तारै लाखापाखा लाग्न थालेको अर्थात् अन्य राजनीतिक पार्टी तर्फ बसाई सर्न थालेका थिए।

नेपाल तराई काङ्ग्रेसको खस्किदो अवस्था

भाषा आन्दोलन कै क्रममा सन् १९५६ को वसन्त ऋतुमा हिन्दी समर्थितहरुको भेलाहरु आयोजना गरिन थालियो। विराटनगरमा पहाडी समुदायले खोलेको नेपाली प्रचारिणी सभाले स्थानीय प्रशासनमा नेपाली भाषाको प्रयोग गर्न माग गर्दै पर्चा बाड्ने थियो, पोस्टर प्रदर्शनी र हस्ताक्षर सङ्कलन गरिएको थियो। हिन्दीभाषीहरुमाथी आक्रमण हुन सक्ने सम्भावना देखेर त्यस बखत तराई कांग्रेसका नेताहरुले नेपाली प्रचारिणी सभाले विराटनगरमा बहुसंख्यक तराईमूलका मानिस र अल्पसङ्ख्यक पहाडेहरुका बीचमा मनमुटाव सिर्जन गर्न लागेको भनी सरकारी अधिकारीहरुलाई सचेत गराएका थिए (गेज, सन् २०१३ : १२५)। एक वर्षमा आन्दोलनले भयावह रूप लिएको थियो।

नेपाल तराई कांग्रेसले प्रतिनिधिसभाको निर्वाचन भन्दा पहिले संविधानसभाको निर्वाचन गराउन माग गरेका थिए। संविधानसभाको माग माओवादीले उठाएको भन्ने गरिएता पनि ऐतिहासिक घटनाक्रम हेदा नेपाल तराई काङ्ग्रेसले उनीहरुभन्दा पहिले नै संविधानसभाको माग गरेको पाइन्छ। हुनत नेपाली कांग्रेसका नेता वीपी कोइरालाले समेत त्यस बखत संविधानसभाको माग गरेको भएपनि ठूला संगठनहरुले जोडतोडले संविधानसभाको माग नउठाई दिएकाले राजा महेन्द्रले वि.सं. २०१५ साल (११ फरवरी, १९५८) मा पहिलो प्रतिनिधिसभाको निर्वाचनको घोषणा गरेका थिए। यसपछि उनीहरुको माग पनि तुहियो।

नेपाल तराई कांग्रेसले राजा महेन्द्रको घोषणालाई स्वागत गर्दै संविधानसभाको निर्वाचनको मागबाट पछाडी हटेको थियो। पहिलो प्रतिनिधिसभाको निर्वाचन घोषणा पछि बसेको नेपाल तराई कांग्रेसको केन्द्रिय कार्यसमितिको बैठकले जनताको आधारभूत मानव अधिकारको रक्षा गर्न सक्ने गरी नयाँ बन्ने संसदलाई अधिकार सम्पन्न बनाउनु पर्ने माग गरेको थियो। मधेसको क्षेत्रीय पार्टी

भएकोले उनीहरूको मागमा राजा महेन्द्रले खासै चाँसो लिएको पाइदैन। माग ठूलठूला राख्ने तर संगठन राम्रो बनाउन नसक्ने रोग उक्त पार्टीमा थियो। एउटा मुद्दा उठाउने र राजाको निर्णय कुनै नयाँ आएपछि मुद्दा छोडिदिने प्रवृत्ति नेपाल तराई कांग्रेसमा हुन थाल्यो।

पहिलो प्रतिनिधिसभाको निर्वाचनका लागि नेपाल तराई काङ्ग्रेसलाई लगौटी लगाएको मानिसले दाहिने हातमा हँसिया र टाउकोमा गहुँको बोभा बोकेको चिन्ह दिइएको थियो। यसको चुनावी मुद्दा मधेसलाई क्षेत्रीय स्वयत्त शासन दिने र नेपाललाई एक संघीय राज्य बनाउनु थियो।

निर्वाचनका बेला नेपाल तराई कांग्रेसले जारी गरेको चुनावी घोषणापत्रमा आफ्नो पार्टीलाई तराईका शोषित, उत्पीडित नागरिकको प्रतिनिधित्व गराउने संगठनको रूपमा परिचित गराएका थिए। सो घोषणापत्रमा नेपाललाई विभिन्न स्वायत्त शासन सहितको प्रान्तहरूमा विभाजित संघात्मक शासन प्रणालीको रूपमा स्थापित गर्नुपर्ने उनीहरूको माग उल्लेख गरिएको थियो (सन् १९५९ : ६)। चुनावी नाराहरू मधेस र मधेसीको हकहीतमा लगाइएको थियो।

वि.सं. २०१५ सालको चुनावी अभियानमा नेपाल तराई कांग्रेसबाट २१ जना उम्मेदवार उठेका थिए। चुनावी अभियानका बेलामा वेदानन्द भाले तराई काङ्ग्रेसलाई तराईका मानिसको समर्थन भएको दावी गरेका थिए। तर चुनावमा उनको पार्टीको नराम्रो हार भयो। सो पार्टीका २१ जना सबै उम्मेदवार हारेका थिए। आफ्नो निर्वाचन क्षेत्रमा वेदानन्द भाले खसेको मतको २० प्रतिशत मत पनि नपाएकाले उनीहरूको जमानत जफत भएको थियो (गेज, सन् २०१३ : १३९)। त्यसबेला जमानतका रूपमा रु. २५० राख्ने नियम थियो। भा आफ्नो तत्कालिन सप्तरी जिल्लाबाट लडेका थिए। पञ्चायत शासकले ७५ जिल्ला बनाउँदा सप्तरी जिल्लालाई सिरहा र सप्तरी जिल्लामा विभाजन गरेपछि उनको घर सिरहा जिल्लामा परेको हो। चुनावका बेला हिन्दी बचाउ आन्दोलनका नेताहरूमध्ये अधिकांश कि त नेपाल तराई कांग्रेसमा लागे कि त नेपाली कांग्रेसमा आवद्ध भएका थिए। हिन्दी बचाउ अभियान नेपाल तराई कांग्रेसले शुरू गरेको भएपनि यसमा तराईमा संगठन भएको सबैजसो राजनीतिक पार्टीहरू संघर्षमा लागेको देखिन्छ। यसले पनि निर्वाचनमा नेपाल तराई कांग्रेसले गरेको भाषा आन्दोलनको जस तराई कांग्रेसले लिन पाएन।

भाषाको कुरा सबैभन्दा पहिले उठाउनेमा वेदानन्द भा र तराई काङ्ग्रेसमा रहेका उनका समर्थकहरू नै थिए। तर नेपाली कांग्रेसले यसमा विस्तारै आफ्नो पकड जमाउँदै गएको थियो। महेन्द्र नारायण निधि अखिल नेपाल कमिटिको अध्यक्ष बनेपछि यो आन्दोलन नेपाली काङ्ग्रेसको पकडमा पुग्यो। तराईका अधिकांश सक्रिय र अनुभवी राजनीतिक नेताहरू नेपाली कांग्रेसका भएकाले र उसको साङ्गठनिक क्षमता सबैभन्दा बलियो भएकोले यस्तो भएको थियो (गेज, सन् २०१३ : १३९)। तराईमा राम्रो संगठन गर्न नसकेको र नेपाली कांग्रेसले मधेसका जमिन्दारहरूलाई छानीछानी उम्मेदवार बनाएका कारण तराई कांग्रेसको वेहाल नै भयो। जातिय आधारमा पनि भा थरका मानिसहरूको जनसंख्या तराईमा कम भएकाले पनि भोट दिनेहरूले कि त आफ्नो जात कि त राष्ट्रिय पार्टीलाई रोजे। जसका कारण सबै सिटमा नेपाल तराई काङ्ग्रेसको जमानत जफत भएको हो।

तराई काङ्ग्रेसले तराईका शिक्षित वर्गमा रहेको काठमाडौँका सरकारी अधिकारी र तराईमा थोपरिएको पहाडे संस्कृति विरोधी भावनाको फाइदा लिने प्रयास गरेको थियो। तर उसले तराईमा अर्धस्वायत्त राज्यको माग गरेपछि व्यावहारिक रूपमा तराई काङ्ग्रेस एकसूत्रीय पार्टी बन्यो। तराईमा

समर्थन जुटाउनका लागि अरु राजनीतिक दलहरू पनि आफ्ना चुनाव प्रचार अभियानमा क्षेत्रीय भाषा प्रति सहानुभूतिका केही शब्द बोल्न बाध्य बनाउन तराई कांग्रेस सफल भए पनि मतदाताहरूले भने ठूलो पार्टीको ठूलो जमातमा बोलेको कुरालाई विश्वास गरे। यसो गरेर उनीहरूले भाषा विवादको हावा खुस्काइदिए र तराई काङ्ग्रेसको मूल मुद्दालाई मोडिदिए (गेज : सन् २०१३ : १३९) । तराई कांग्रेसको संगठनमा लागेकाहरू मध्ये अधिकांश विस्तारै अन्य राजनीतिक पार्टीहरूको प्रचार प्रसारमा लाग्न थालेका थिए। मधेसमा हार्ने हल्ला भएपछि त्यसैपनि मतदाताहरूले मत खेर जान्छ भनेर भोट हाल्दैनन्। त्यही नियती नेपाल तराई काङ्ग्रेसको भएको देखिन्छ।

तराई कांग्रेसले भने जम्मा ३६ हजार १०७ मत प्राप्त गरेको थियो। जुन कूल मतको २.१ प्रतिशत भएपनि कुनै पनि उम्मेदवार विजयी भएनन्। तराई कांग्रेस संगठनात्मक रूपमा आम नेपाली जनतामाभ भिजिसकेको थिएन। जसले गर्दा उसको सर्वनाक हार भयो (रामनारायण देव, नागरिक दैनिक, १५ असार २०७३)।

वेदानन्द भा, बलदेव दास यादव र कुलानन्द भाहरूले संगठन व्यापक बनाउन सकेनन् र नेपाली कांग्रेसले मधेसमा मधेसीहरूको मागलाई आफ्नो मागका रूपमा उठाउन थालेपछि जनता अलमलिए र नेपाली कांग्रेसलाई नै रोजे। हुन त नेपाल तराई कांग्रेसले चुनावी मुद्दामा भाषा, आर्थिक अवस्था, भौगोलिक आधारहरूलाई मानेर तराई र पहाडलाई दुई वा दुईभन्दा बढी भागमा विभाजित गरेर त्यसको आन्तरिक प्रशासनको पूर्ण अधिकार प्राप्त स्वशासित प्रान्त बनाएर ती सबैलाई एक सूत्रमा आवद्ध गरेर 'नेपाल युनियन' को स्थापना गरेर नेपालमा सही लोकतन्त्रको स्थापना गर्ने भनेको थियो (देवकोटा, २०३६ : २२)। यस्तै मागहरूले गर्दा देश टुक्राउने पो हुन कि भन्ने आभाष भएर मधेसमा नेपाली भएर बस्न चाहने जमातले नेपाल तराई कांग्रेसलाई समर्थन गरेन। मुख्य रूपमा मधेसमा व्यक्तिगत पकड भएकाहरू नेपाली कांग्रेसबाट उम्मेदवार भएपछि व्यक्तिगत पहुँचका आधारमा कांग्रेसका उम्मेदवारहरूले निर्वाचन जितेको र भा समुदायको संख्या मधेसमा कम भएकोले समेत जातिय सोचका कारण पनि नेपाल तराई कांग्रेसले हार खानु परेको हो भन्न सकिन्छ। तराई कांग्रेसले अन्य पार्टीहरूसँग तालमेल गरेको थिएन। पार्टी भित्र सक्षम र प्रभावशाली नेतृत्वको अभाव थियो।

चुनाव पछिको नेपाल तराई काङ्ग्रेस :

वि. सं. २०१५ को निर्वाचनमा जमानत जफतपछि निष्क्रिय भएका नेपाल तराई कांग्रेसका नेताहरू वि. सं. २०१७ को कूपछि विभाजित भए। राजा महेन्द्रले 'कु' गरेपछि नेपाल तराई कांग्रेसका केही नेता पञ्चायतमा सहभागी भए। त्यसका केही नेता कांग्रेसमै फर्के, केही अन्य दलमा मिसिए भने केही दलविहीन रहे। रामजनम तिवारीलगायत नेता कांग्रेसमै फर्के। वेदानन्द भा लगायत नेता पञ्चायती सरकारमा मन्त्री, राजदूत भए। तराई कांग्रेसको दुर्दिन यहीँबाट सुरु भयो। तराई कांग्रेसले चुनाव जित्न नसके पनि महेन्द्रको नजरमा सो दल मधेशकै बलियो हो भन्ने बनाउन राजा महेन्द्रले बनाएको मन्त्रीमण्डलमा गृहमन्त्री रहेका विश्वबन्धु थापा सफल भए। राजा महेन्द्रसँग दर्शन भेट गर्न चाहेका वेदानन्द भालाई त्रिपुरेश्वर स्थित आफ्नो कार्यालयमा बोलाएर तत्कालिन गृहमन्त्री विश्वबन्धु थापाले राजालाई रिक्काउन नेपाली भाषा बोल्न सिक्नु पर्दछ भन्ने सुझाव दिएको र सोही अनुसार वेदानन्द भा काठमाडौँमा बस्दा नेपाली भाषामा बोल्न र राजपरिवारका

सदस्यहरूसँग आदरभावले बोल्ने केही शब्दहरू थापाले नै वेदानन्द भालाई सिकाएका थिए । राजा महेन्द्रले तिम्रो भागमा रहेको कुनै विभागको सहायक मन्त्री बनाऊ भन्ने आदेश दिएपछि विश्ववन्धु थापाले आफ्नो अधिनमा रहेको पाँच विभाग मध्ये प्रचार विभागमा वेदानन्द भालाई सहायक मन्त्री बनाएका थिए (विश्ववन्धु थापा, वि.सं. २०८१ असार ३०) । नेपालमा एक भाषा र एक भेषभुषाको सोच ल्याउने व्यक्ति नै वेदानन्द भा भएको दावी विश्ववन्धु थापाले गरेका छन् । वेदानन्द भा अवसरको सदुपयोग कसरी गर्नु पर्दछ भन्ने कुरामा खप्पिस थिए भन्ने यसबाट प्रमाणित हुन्छ । राजा महेन्द्रले विश्ववन्धु थापालाई वेदानन्दले हिन्दीमात्र बोल्दो रहेछ कसरी मन्त्री बनाउने भनेर जिज्ञाषा राखेको बेला विश्ववन्धुले नेपाली बोल्न अनाए पनि बुझ्ने भएकोले विस्तारै बुझ्छ भनेर राजाको आशय अनुसार वेदानन्द भालाई नेपाली बोल्न सिकाएका रहेछन् ।

वेदानन्द भा पञ्चायती सरकारमा सहभागी हुनु मधेसका निम्ति घाटाको विषय थियो । यसले मधेसीहरू अवसरवादी हुन्छन् भन्ने देखायो । मधेशको मुद्दालाई कमजोर बनाउन यस घटनाले सघाएको थियो । वेदानन्द भा राजाको समर्थनमा लागे भने महासचिव रामजनम तिवारी, श्यामलाल मिश्रासहितका नेताहरू विरोधमा लागेका थिए । राजालाई समर्थन गरेका वेदानन्द भा प्रचार विभाग मन्त्री र भारतका लागि राजदूत समेत भएका थिए । रामजनम तिवारी, श्यामलाल मिश्राहरू बीपी कोइरालासँग वार्ता गरेर नेपाली कांग्रेस पसेका थिए ।

तराई कांग्रेसमा महासचिव रामजनम तिवारी त्यसपछि रक्सौल गएर सानो सम्मेलन गरी प्रजातन्त्र ल्याउनका लागि नेपाली कांग्रेसका नेता सुवर्ण शमशेर जबराको मार्फत तराई कांग्रेस पार्टीलाई नेपाली कांग्रेसमा विलय गराए (यादव, सन् २००३ : १०७) ।

यसरी नेपाल तराई कांग्रेसको एउटा गुट पञ्चायती व्यवस्था तर्फ र अर्को गुट नेपाली कांग्रेसमा विलय भएपछि उक्त पार्टी भित्र रहेको बमपन्थिहरू भने मधेस मुक्ति मोर्चा गठन गर्न तर्फ लागेका थिए । यस पछि यो पार्टी नेपाली इतिहासबाट लोप भएर गएको थियो ।

नेपाल तराई काङ्ग्रेसबाट विभाजित भएर गएका मधेसीहरूले वि.सं. २०१८ सालमा तराई मुक्ति मोर्चा गठन गरेका थिए । उक्त पार्टीले निम्न उद्देश्य राखेर छापामार युद्ध गर्ने भनेको थियो ।

- (१) नेपालको तराई भूभागमा बसोबास गर्ने मधेसीहरूको समस्यालाई उठाउन,
- (२) स्वायत्त शासन र आत्मनिर्णयको अधिकार प्राप्त गर्न र
- (३) मधेसीमाथि हुने भेदभाव, उपेक्षा र शोषणको अन्त्य गर्न (यादव, सन् २००३ : १०६) ।

पञ्चायतविरुद्ध लड्ने कांग्रेस पसेका तराई कांग्रेसका नेताहरूले वि.सं. २०३८ सालमा हर्क गुरुङको बसाइँसराइ प्रतिवेदनको विरोधमा नेपाली कांग्रेस नबोलेपछि पुनः सद्भावना परिषद् नामक संगठन खोलेको रामनाथ मिश्राले पत्रकार नविन भालाई बताएका थिए । त्यही परिषद् वि.सं. २०४६ को परिवर्तनपछि नेपाल सद्भावना पार्टीको रूपमा उदाएको थियो (नविन भा, अन्नपूर्ण पोष्ट, साउन १९, २०७५) । यसरी नेपाल तराई कांग्रेसका नेताहरू छिन्नभिन्न भए । अहिले उक्त पार्टीको इतिहासमात्र बाँकी छ । एकजना वेदानन्द भा पञ्चायतमा प्रवेश गरेको र 'एक भाषा एक भेष, एक राजा एक देश' को नारा राजालाई सुनाएर आफू राजाको निगाहमा रमाउने वेदानन्द प्रवृत्ति अहिले पनि मधेसमा यताकदा देखिन्छ । यसले गर्दा मधेसी समुदायले सही नेता पाउन नसक्दा जनता पटक पटक आन्दोलनमा होमिनु पर्ने अवस्था विद्यमान छ ।

निष्कर्ष

मधेसीको भावना अनुसार विभिन्न मागहरु राखेर वि.सं. २००८ सालमा खुलेको नेपाल तराई कांग्रेसले मधेसमा भाषा आन्दोलन उठाइ रहँदा उनीहरुको शक्ति बढ्दै गएको देखिएको थियो । तर जब वि.सं. २०१५ सालको निर्वाचनमा २१ जना उम्मेदवार कै जमानत जफत हुनेगरी हार भयो तब पार्टीका नेताहरु तितरबितर भए । कोही नेपाली कांग्रेसमा त कोही पञ्चायतमा पसे । पञ्चायतमा गएका बेदानन्द भाले मन्त्री र भारतीय राजदुत हुने अवसर पाएका थिए । यस घटनाले नेपाल तराई कांग्रेस एउटा अवसरको खोजीका लागिमात्र खुलेको थियो भन्ने प्रमाणित गर्न मधेस विरोधीहरुलाई सहयोग पुगेको थियो ।

नेपालको इतिहासमा नेपाल तराई कांग्रेसले नेपालमा विभिन्न जातजाति, भाषाभाषी र धार्मिक समुदायका मानिसहरु क्षेत्रीय रूपमा विभाजित भएर बसेकाले यहाँ एक जाति, एक भाषाको संस्कृति थोपर्नु हुँदैन भन्ने सन्देश दिएको थियो । यही सन्देशलाई नेपालमा पछि खुलेका क्षेत्रीय राजनीतिक पार्टीहरुले अनुशरण गरेर क्षेत्रीय, जातीय र भाषागत पहिचानको लागि आन्दोलनहरु गरे । जुन आन्दोलन अहिले पनि विभिन्न स्वरूपमा जारी रहेको छ ।

संघीयताका लागि गरिएको संघर्षकै कारण मधेसी राजनीतिको श्रीगणेश भएको मान्नेहरु पनि मान्न सकिन्छ । राणा शासनको अन्त्य पछि नै मधेसलाई संघीयतामा लाने नारा उठेको थियो जसको नेतृत्व नेपाल तराई कांग्रेसले गरेको थियो । त्यसकै फलस्वरूप अहिले मधेस प्रदेश भएको भनेर मान्नेहरुको जमात पनि ठूलो छ ।

नेपाल तराई कांग्रेसका नेताहरु छिन्नभिन्न भए । अहिले उक्त पार्टीको इतिहासमात्र बाँकी छ । एकजना बेदानन्द भाले पञ्चायतमा प्रवेश गरेको र 'एक भाषा एक भेष, एकराजा एक देश' को नारा राजालाई सुनाएर आफू राजाको निगाहमा रमाउने बेदानन्द प्रवृत्ति अहिले पनि मधेसमा यताकदा देखिन्छ । यसले गर्दा मधेसी समुदायले सही नेता पाउन नसक्दा जनता पटक पटक आन्दोलनमा होमिनु पर्ने अवस्था विद्यमान छ ।

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