ISSN 2661-6114



JOURNAL OF AMC

Vol. : 3, Issue : 1, December, 2022

Research Management Cell Aishwarya Multiple Campus Dhangadhi, Kailali

ISSN :

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Publisher :

Research Management Cell Aishwarya Multiple Campus Dhangadhi, Kailali

Computer Layout :

Kamal Prasad Bakhariya

Printed at : Kedar Offset Press, Dhangadhi

Price : Rs. 550/- (Institutional) Rs. 300/- (Individual) US \$12 (Outside Nepal)

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Editorial Note •

We extend acknowledgement to our benevolent readers on the occasion of successful completion of "JOURNAL OF AMC(JAMC)" "Research Publication of Research Management Cell (RMC)", Aishwarya Multiple Campus (AMC), Dhangadhi, Kailali. The RMC of Aishwarya Multiple Campus has completed the first issue of the year 2022, (Vol. 3). It serves the purpose of readers who are interested in contemporary knowledge of natural and social science.

Encouraging support of our benevolent readers, scholars, academicians, and members of advisory board inspired us to come up with this issue of the journal on time. It contains basically 12 articles. Among them 2 are related to natural science and others are related to social science. This journal gives priority to the research work or project work conducted by the teachers and the students of AMC. Its main aim is to inspire the research scholars, teachers and students of the campus to write something about what they do, feel, and observe. The research course has taken different modes like thesis writing, field work report, project work report, and term paper assignments as integral part of the teaching and learning procedure. Publication of these research oriented activities in such type of journal encourages teachers as well as students in order to improve teaching and learning, and to enhance analytical and research skills.

We collected all articles from scholars of different fields and sent these articles for peer review work to related experts for their valuable suggestions, then we advised the writers to correct those articles. Finally, we again compiled all articles and edited them. This whole work was not possible without the sincere effort of the members of publication committee (Research Department), peer review team, editorial board, and advisory board. Long-time efforts and inspiration of these committees as well as benevolent creditors have made it possible to bring this issue into its present form. Therefore, we are always indebted to all learned scholars who have contributed their papers to publish this issue in time and valuable form. We also extend our gratitude to the advisory board and editorial board for their considerable assistance and sincere guidelines. We are further thankful to Prof. Dr. Hem Raj Pant, Prof. Dr. Chet Raj Bhatta, Prof Dr. M.L. Sharma Bhushal, Associate Prof. Dr. Mandev Bhatta and Dr. L.B. Thapa, for their sincere devotion to review articles of this issue. We are indebted to campus chief Mr. Dharma Dev Bhatta of AMC for his valuable support to publish this issue. We are also thankful to Mr. Kamal Prasad Bakhariya for this painstaking computer work.

Despite sincere efforts, the chance of human error cannot be avoided. Therefore, we would also like to take full responsibility of any kind of deficiency presented in the editorial aspect of this issue. Lastly, we expect creative comments and suggestions from learned scholars and readers for the forthcoming issue.

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Publishing Guidelines for Scientific Writing

Raghu Bir Bhatta

Associate Professor of Mathematics Aishwarya Multiple Campus, Dhangadhi Kailali Email:bhattaraghu2029@gmail.com

Article History : Received Date : 2079/04/10; Accepted Date : 2079/06/10

Abstract

In this review paper, different aspects of scientific writing have been discussed in detail. How to write academic writing with originality and critically are mentioned. How we write what we think and agree that our thinking develops as we write our ideas down in formal ways is a central part of this paper. Scientific writing is a tool for recording what we think and do in our research. It is a documentary process that involves a different form of writing like a proposal, or research report.

Key Words: originality, rigor, supervisor, delimitation

Introduction

Background of Study

Scientific (Scholarly) writing is a skillful job. It consists of independent work and originality in writing and interest in the related field. If we are ready for independent research, we all need to know to begin researching. We need a lot of training in modeling and statistics, but the main thing was being able to take part in various experiments of field works. We have to work with other scholars. Doing a higher degree requires a fair amount of writing (Bean & Melzer, 2021; Clarke & Visser, 2019). The term scientific writing commonly denotes the reporting of original research in journals, through scientific papers in the standard format. Its purpose is to communicate new scientific findings. (Gastel, 1983; Day & Gastel, n.d.). It is a formal style of writing used in universities and scholarly publications like journal articles, books on academic topics, essays, research papers, dissertations, and theses. It follows the same writing process as other types of texts, but it has specific conventions in terms of content, structure, and style. Writing about science can come in the form of scientific writing. It is used by scientists to communicate their findings. On the other hand, science writing is curated for the layman and may be found in mainstream media. Scientific writing has been around for hundreds of years with early articles dating back to the 1600s. Scientific literature of the past is vastly different from scientific literature today. Early pieces were not peer-reviewed, meaning that scientists could publish their findings without criticism and feedback from their peers before they became publicly available. Today, primary literature (found in academic journals) is strictly peer-reviewed before publication. The style of scientific literature has also drastically changed over the years. Early work was often prose-heavy and may have been thick with metaphors. These articles may have been wordy and hard to understand. Today's scientific writing is focused on clear communication to build upon a collaborative field. Due to this, scientific writing today strives to be clear (easy to understand), concise (brief without excess prose), and precise (accurate)(Day & Gastel, n.d.).There are principles of writing in each academic discipline. We have to locate and learn them. Find out what they are. We can do this by reading publications and theses and discussing our understanding of core principles in our discipline with supervisors and peers. It might help to ask the following questions:

- What are the conventions of writing in the discipline?
- What language nouns, verbs, links, etc. do writers use?
- How are debates represented?
- How is structure revealed?
- What are the options in style and structure?

The purpose of writing should be clear. It is not only for the degree. It is most useful for us because:

- We are writing to learn.
- We are writing to explore our research topic.
- We are writing to document.
- We are writing to report.
- We are writing to persuade.

Therefore, scientific writing is primarily a means of learning what we know and what we do not know and discovering the limits of our knowledge or the limits of our apparent ignorance. Do we believe that we learn about what we think when we put our ideas down in writing? Do we agree that our thinking develops as we write our ideas down in formal ways? Are we setting out to learn from the feedback we get on our writing? Is writing something a tool for recording what we think and do in our research? Is writing therefore a documentary process? All of these are relevant to the learning process that is part of the writing process. Each involves a different form of writing. Each assumes a particular response from the reader, assuming that either the reader knows what we propose and/or that we have specified it in our writing (Murray, 2017; Kothari, 2004). It is also important to recognize that all of these ways of thinking about writing are in stark contrast to the more instrumental ways in which it is frequently regarded i.e. as simply a means of communicating the results of research; that is only part of the academic writing process (Phillips & Burbules, 2000; Gall, Borg, & Gall, 1996). In any type of scientific writing, we should focus on the following issues.

- Complexity
- Originality
- Critical thinking
- Scholarly work?
- Significant contribution to knowledge in the field
- Novel concepts
- Innovative ideas
- Publishable outcomes.

Scientific writing includes professional communication by scientists or scholars through journal articles (review papers, summarizing and integrating previously published research), grant proposals, oral presentations, poster presentation, proposals, and a thesis or dissertation for academic degrees. This article briefly discusses how to write a research proposal and format of thesis for academic degree only.

Terminology and Some Important Attention Used in Scientific Writing

It is necessary to define some terminologies used in scientific writing which are as follows (Mauch & Park, 2003; Glatthorn & Joyner, 2005):

Thesis

The thesis is derived from the Greek word 'proposition' which means a proposition to be proved or one advanced without a proof(hypothesis) or a proposition that a person (such as a candidate for scholastic honors) advances and offers to maintain by argument. The thesis is the product of a scholarly and professional study at the honors or master's degree level. It is usually a document in a format and style specified by the particular university. (Sometimes, "thesis" is regarded as a synonym for "dissertation").

Dissertation

Dissertation is derived from the Latin word 'discussion'. It is used to contribute new knowledge or to add new theories and practices in the field. It is the product of student work at the doctoral level, distinguished from thesis study chiefly by its deeper, more creative, more comprehensive, and more mature professional and scholarly treatment of the subject. But in the U.K., Europe, and India, the above convention is just the reverse. Dissertation leads to a postgraduate level degree and thesis for Ph.D. Level. Sometimes these two terms have similar meanings also.

Supervisor

We use the term 'supervisor' to designate the person who is responsible for guiding the doctoral student. It has a different title, such as 'tutor' or 'thesis advisor'. It has many dimensions: interpersonal, managerial, psychological, motivational, and editorial. Supervisors have to play several different roles and should be sensitive to their student's needs as they do so. Of course, they have to be experts in the field. The roles of the Supervisor are as a:

- Director
- Facilitator
- Adviser
- Teacher
- Guide
- Critic
- Freedom giver
- Supporter
- Friend
- Manager
- Examiner

Academic and Professional Disciplines

The substantive bodies of knowledge in sciences, humanities, and arts are called disciplines. Physiology, history, literature, philosophy, chemistry, music, etc are academic disciplines, and education, law, social work, nursing, and engineering are professional disciplines.

Research Methodology

Research methodology is a systematic and scientific plan for conducting research. It contains lots of research methods (like descriptive, analytical, experimental qualitative, quantitative, etc). The methods section of a scientific paper includes information to allow the reader to assess the believability of our results. Information is needed by another researcher to replicate our experiment. The description of our materials, procedure, theory, calculations, techniques, equipment, and calibration including plots, is done in this section. The description of our analytical methods, including reference to any specialized statistical software, is also done here. The methods section should be answering the following questions and caveats:

- Could one accurately replicate the study (for example, all of the optional and adjustable parameters on any sensors or instruments that were used to acquire the data)?
- Could another researcher accurately find and reoccupy the sampling stations or track lines?
- Is there enough information provided about any instruments used so that a functionally equivalent instrument could be used to repeat the experiment?
- If the data are in the public domain, could another researcher lay his or her hands on the identical data set?
- Could one replicate any laboratory analyses that were used?

- Could one replicate any statistical analyses?
- Could another researcher approximately replicate the key algorithms of any computer software?

Citations in this section should be limited to data sources and references of where to find more complete descriptions of procedures.

Citation

Citation is a way of giving credit to individuals for their creative and intellectual work that we utilize to support our research. It can also be used to locate a particular source and *to avoid plagiarism*. (i.e. to *avoid copying and pasting*). *We should keep in mind adding citations for each statement that is not ours. It gives proper credit to the author's work or ideas*. A reader could achieve a sophisticated understanding of the context and significance of the study (by going to the library or a search engine). We can cite ideas, concepts, and text data in-text citation and we should keep them at the end of the report in the reference section according to the style of citation. Citation style is a set of rules on how to cite sources in academic writing (APA, MLA, Chicago, AMS, Harvard, Vancouver, Turabian, IEEE, etc)

Flow of idea

In a research proposal or thesis or dissertation, there must be an adequate flow of ideas. Efforts should be made to keep the title, research question, general objective, specific objectives, and hypotheses interconnected. All the sections such as research question, methodology, results, discussion, conclusion, and recommendations should also remain in line with the above. Sections should be interconnected in order to be consistent and keep a nice flow of ideas.

Reference and Bibliography

A reference list, generally, contains only sources cited in-text while a bibliography, generally, is a list of all the sources we have used. This means, in addition to listing the sources we cited in-text, we also list resources that we read or referred to generate the write-up.

Characteristic Similarities and Differences Between Scientific Writing

The originality, individuality, and rigor criteria are common requisites for investigations in both the academic and professional disciplines:

Originality

It means that the research has not been done before in the same way. It is rare to find a topic that has not been researched before to some extent and by some procedure. So, originality does not mean that the research questions or hypotheses are entirely new. Originality is a key criterion for academic writing. A report should show that the work was in some way original. There are many different interpretations of this word. (Phillips & Burbules, 2000;R"uger, 2016; Creswell, 2002). Originality includes:

- Doing empirical work that has not been done before.
- Synthesizing things that have not been put together before.
- Making a new interpretation of someone else's material/ideas.
- Doing something in this country that has only been done elsewhere.
- Taking an existing technique and applying it to a new area.
- Working across disciplines, using different methodologies.
- Looking at topics that people in our discipline have not looked at.

- Testing existing knowledge in an original way.
- Adding to knowledge in a way that has not been done before.
- Writing down a new piece of information for the first time.
- Giving a good exposition of someone else's idea.
- Continuing an original piece of work.

Individuality

It means that the study is conceived, conducted, and reported primarily by the student. Topics may often be suggested by others. Also, advisors may help in thinking through the concepts and the procedures to be used. But, the chief decisions about whether to study the topic, how to study it, and how to report it must be made, rationalized, and defended by the student.

Rigor

The third element common to academic work in the academic and professional disciplines is rigor. To attain rigor means to be characterized by strict accuracy and scrupulous honesty and to insist on precise distinctions among facts, implications, and suppositions. Rigor is achieved by sticking to demonstrable facts when reporting procedures and results, by building on a foundation of facts when drawing conclusions, specifying links to facts when inferring implications, always bringing forward all relevant data, and being both self-critical and logical in reporting and when projecting needed research.

Research Proposal

A research proposal is a concise and coherent summary of the proposed research. A proposal is the most important document developed to clearly express a research idea. It sets out the central issues or questions that the researcher intends to address. It outlines the general area of study within which the research falls, referring to the current state of knowledge and any recent debates on the topic. It also demonstrates the originality of the proposed research work. It also gives an opportunity to demonstrate the aptitudes of the researcher and the feasibility of the proposed research. Furthermore, it is through the research proposal that a researcher demonstrates the ability to communicate complex ideas clearly, concisely, and critically. The proposal also helps to match the research interest with current community needs. A proposal (synonymous) is a written plan for a thesis or for a dissertation developed by a student for consideration and possible approval by a research committee. It is written in the future or present tense.

Components of the Research Proposal

A research proposal should normally include a preliminary part, the main part(body) and end part. It includes the following information.

Preliminary Part

Title

This is just a tentative title or topic for the intended research. Once approved, it can be subject to modification in the course of the research implementation. It should contain up to 12 (in some cases 15 words) words (Baron, 2008). Examples of research proposal titles are:

- Feminist Perspectives on the Legal Recognition of Polygamous Marriages in Kailali.
- Development of Sensors for Variable Rate Application of Pesticides.
- Optimization of Irrigation Management Strategies Under Climate Change.

Abstract

A good abstract explains in one line why the study is important. It then goes on to give a summary of major methodologies used, key obtained results, conclusion, and recommendations. The final sentences explain the major implications of the accomplished work. A good abstract is concise, readable, and quantitative. The length should be a 1-page paragraph, approximately 250 words. (Some disciplines 300-400 words). Abstracts generally do not have citations. Information in the title should not be repeated. It should be explicit and use numbers where appropriate. Answers to these questions should be found in the abstract:

- What did you do?
- Why did you do it?
- What question were you trying to answer?
- How did you do it (methodology)?
- What did you learn (major results)?
- Why does it matter (Point out at least one significant implication)?

Key Words

Keywords are not necessary for the thesis proposal. But keywords are essential in journal articles. Generally, 3 to 5 keywords (words or phrases) should be kept.

Main Part (Body) of Proposal

The body of the proposal consists of three main sections 1) Introduction, 2) Literature Review 3) Methodology. These three sections also correspond to the first three chapters of the proposal. But a final report of the thesis or dissertation consists of 1) Introduction, 2) Literature Review 3) Methodology 4) Result 5) Discussion 6) Conclusion, and a recommendation. The difference between a proposal and a report is that: the proposal is written in the present or future tense and a culminating report is always written in the past tense (Ostler, 1996). The main part of the proposal has the following subsections.

Introduction

This is set to explain the broad background against which the research will be conducted. It should include a brief overview of the general area of study within which the proposed research falls, summarizing the current state of knowledge and recent debates on the topic. This allows us to demonstrate a familiarity with the relevant field as well as the ability to communicate clearly and concisely.

Problem Statement

A problem statement is a brief overview of the issues or problems existing in the concerned area selected for the research. It is an explanation of the issues prevalent in a particular sector that drives the researcher to take interest in that sector for in-depth study and analysis, so as to understand and solve them This focuses on why the study will be undertaken, or why the thesis will be written.

Research Questions

Developing a good research question is one of the first critical steps in the research process. A research question is an answerable inquiry into a specific concern or issue. It is the initial step in a research project. The 'initial step' means after you have an idea of what you want to study, the research question is the first active step in the research project. The research question should be a clear, focused question that summarizes the issue that the research will

investigate. Without a question, you can't have a hypothesis. Without the hypothesis, you won't know how to study what you're interested in. Research questions should be three-dimensional (i.e. They should be what, how, and why questions). Answers to these questions will be given in subsequent chapters later on.

Hypothesis (Optional)

At its most basic, the research hypothesis states what the researcher expects to find. It is the tentative answer to the research question that guides the entire study.

Objectives

The objective of a Research Proposal is to clearly express one's research idea. Objectives are of two types

General/Global/Main/Overall Objective

These objectives provide an accurate description of the specific actions you will take in order to reach the aim of the study. As with the problem formulation, the overall objective should be framed in a single sentence. The overall objective should be written as an infinitive sentence.

For example: To analyze the association between nutritional knowledge and the nutritional status of pregnant women attending antenatal care (ANC) in Seti Hospital. To analyze the epidemic models with Yoga awareness.

Specific Objectives

A specific objective consists of one infinitive sentence and should be phrased in a way that makes it possible to draw a conclusion from within the scope of the thesis. The more precisely you formulate your specific objectives, the simpler it will be to define the type of study and which method(s) you will use in your further research. Based on the above overall objective, the following specific objectives can be formulated.

- To assess the knowledge level among ANC attendees on the recommended nutritional practices during pregnancy.
- To assess the nutritional status of pregnant women attending ANC.
- To analyze the statistical association between nutritional knowledge level and nutritional status in pregnant women attending ANC.
- To estimate the parameters used in the SIR epidemic model with Yoga awareness.

Scope of the Study

A thesis is not a place to summarize everything you have ever read on a subject. Explain what will and will not be included. A verbal 'road map' or verbal 'table of contents guides the reader to what lies ahead. Is it obvious where introductory material ("old stuff") ends and your contribution ("new stuff") begins? Remember that this is not a review paper. We are looking for original work and interpretation/analysis by the author.

Significance of Research

The proposal should demonstrate the originality of your intended research. You should therefore explain why your research is important (for example, by explaining how your research builds on and adds to the current state of knowledge in the field or by setting out reasons why it is timely to research your proposed topic)

Definitions

The definitions section provides definitions for terms that are unusual or not widely understood or for terms that have meanings unique to the area under study.

Delimitations (optional)

Delimitations are factors that affect the study over which the researcher has control. Delimitations set boundaries or limits. Using structured interviews or questionnaires to gather data, for example, may be delimited to a very small fraction of the total population so that the project remains "doable" within a limited time frame or with limited resources. Delimiting a study to one school or one city or otherwise delimiting the number of data sources also helps keep a project 'doable'.

Limitations (optional)

Limitations are factors that may affect the study but are out of the researcher's control. Limitations are very useful because they provide a method to acknowledge errors. In some cases, the limitations are so severe that they make all conclusions highly suspect. The effect of particular teaching strategies on the performance of students is an example.

Structure/Organization of the Study

This is a summary/ road map that may guide readers through the reading and understanding of the dissertation. In this activity, you will provide readers with a road map to your thesis or dissertation that illustrates what they should expect i.e. how the study is organized and conducted from chapter one up to chapter five or more.

Review of Literature

Introduction

Generally, it is organized in chapter II. Researchers explore and discuss key published literature in the same area as the current research topic. It is also a text of a scholarly paper, which includes current knowledge articles, books, and other sources. (e.g. dissertations, conference proceedings including substantive findings as well as theoretical and methodological contributions to a particular topic in relation to the research problem being investigated (Mitcham, 1982).

Theoretical Framework

These are theories that are developed from academic books and journal articles and other research outputs. They are known as secondary sources and do not report new or original experimental work relevant to a particular issue, area of research, or theory. It provides a description, summary, and critical evaluation of each work.

Conceptual Framework

A theoretical structure of assumptions, principles, and rules that holds together the ideas comprising a broad concept. It involves variables such as independent variables and dependent variables that form a topic of a research study. The purpose of the conceptual framework is to test the theories, make research findings more meaningful and generalizable, stimulate the situation and predict and control the research situation.

Methodology

Introduction

The research method is a systematic plan for conducting research. Involves the use of both qualitative and quantitative research methods, including experiments, survey research, participant observation, and secondary data. Quantitative methods aim to classify features, count them, and create statistical models to test hypotheses and explain observations, interviews, and the use of questionnaires. Qualitative methods aim for a complete, detailed description of observations, including the context of events and circumstances (Leavy, 2022).

Study Site

The area where the research study will take place. For example, the research study will/was conducted at Patan Municipality ward number 9 Baitadi. Or research study was conducted at the National laboratory Dhangadhi branch of the Kailali district.

Research Design

Refers to the overall strategy that you choose to integrate the different components of the study in a coherent and logical way, thereby, ensuring you will effectively address the research problem; it constitutes the blueprint for the collection, measurement, and analysis of data. The researcher(s) select can select the type of research design to use such as cross-sectional research designs, exploratory designs, Experimental designs, historical research designs or descriptive designs. The researcher(s) decide the type of research design during the investigation.

Target Population/Population of the Study

A study of a group of individuals taken from the general population who share a common characteristic, such as age, sex, or health condition. A population commonly contains too many individuals to study conveniently, so an investigation is often restricted to one or more samples drawn from it. The research population concerning with members of the Dhangadhi Submetropolitan city who have benefited from credits in Agriculture is 8118 members.

Sample Size

Consequential research requires an understanding of the statistics that drive the range of sample size decisions you need to make. A simple equation will help you put the migraine pills away and sample confidently knowing that there is a high probability that your survey is statistically accurate with the correct sample size. The researcher(s) can use a formula to compute the population into percentages in order to determine the sample size to use.

Methods and Techniques used (data collection & Analysis)

The proposal should outline your research methods, explaining how the research will be conducted. The methods may include visiting particular libraries or archives, field work or interviews, or laboratory and/or field experiments. Most researches fall through the above approaches. If the proposed research is for example library-based, the researcher should explain where key resources (e.g. law reports, journal articles) are located (in the University or national library. If there is a plan of conducting fieldwork or collecting empirical data, the researcher should provide details about this (e.g. for interviews to you conducted? Will there be problems of access?). This section should also explain how you are going to analyze your research findings.

Budget and Timeline

This consists of tables highlighting the monetary value of the activities and items required to implement the proposed research. A separate table is also required to specify when each activity will be implemented.

Bibliography / Reference

The proposal should include a short bibliography/reference identifying the most relevant works studied or cited in the text for our topic.

Format of Research Report

A sample outline format for crop Production (Paddy production) report is as follows

Preliminary Part

It includes Cover Page Abstract Dedication Certification Acknowledgments Table of Contents List of Figures List of Appendices Acronyms/Initialism/Abbreviation

Main Body Part

It includes the following section and subsections

Chapter One: Introduction

- 1.1 Background
- 1.2 Problem Statement
- 1.4 Research Questions
- 1.5 Hypothesis (Optional)
- 1.3 Objectives of Study
- 1.3.1 General objective
- 1.3.2 Specific objective
- 1.6 Significance of Study
- 1.7 Scope of Study
- 1.8 Delimitations /Limitations
- 1.8 Structure/Organization of the Study

Chapter two: Review of Literature

- 2.1 Paddy in General.
- 2.1.1 Taxonomic classification of
- 2.1.2 Origin and distribution
- 2.1.3 Storage conditions
- 2.1.4 Storage Pests
- 2.1.6 Treatments of stored Paddy grain
- 2.2 Paddy Weevils
- 2.2.1 Taxonomic classification of Paddy weevils
- 2.2.2 Description of Paddy Weevils
- 2.2.3 Biology, Ecology, and Behavior (Life History)
- 2.2.3 Damage Done by *Sitophilus zeamais* to Paddy Grains

- 2.2.4 Prevention and Control Measures of Paddy Weevils
- 2.3 Overview of Tagetes Minuta
- 2.3.1 Taxonomy classification of *Tagetes minuta*
- 2.3.2 Origin and Distribution
- 2.3.3 Importance of Marigolds and its uses in agriculture
- 2.3.3 Plant Material and Extraction
- 2.3.5 Morphology and Physiology of Tagetes minuta
- 2.3.4 Pesticidal properties of wild marigold

Chapter Three: Materials and Methods

- 3.1. Materials
- 3.1.1 Experimental site
- 3.1.2 Paddy weevils (*Sitophilus zeamais*)
- 3.1.3 Paddy
- 3.1.4 Marigold (Tagetes minuta) extraction
- 3.2 Methodology
- 3.2.1 Experimental design
- 3.2.2 Application of wild marigold (Tagetes minuta) extracts
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Chapter Four: Results Presentation and Discussion

- 4.1 Results presentation
- 4.1.1 Mortality
- 4.1.2 Survival Weevils
- 4.1.3 Damage Rate
- 4.2 Results Discussion

Chapter five: Conclusion and Recommendation

- 5.1 Conclusion
- 5.2 Recommendation

Conclusion

The preliminary idea about what is the research proposal and how to prepare it is developed in this paper. Different aspects of scientific writing were discussed and the writing techniques of these aspects in the proposal are mentioned. Finally, a sample report is mentioned.

References

Baron, M. A. (2008). Guidelines for writing research proposals and dissertations. Division of Educational Administration: University of South Dakota, 1, 1–52.

- Bean, J. C., & Melzer, D. (2021). Engaging ideas: The professor's guide to integrating writing, critical thinking, and active learning in the classroom. John Wiley & Sons.
- Clarke, E., & Visser, J. (2019). Pragmatic research methodology in education: possibilities and pitfalls. International Journal of Research & Method in Education, 42(5), 455–469.
- Creswell, J. W. (2002). Educational research: Planning, conducting and evaluating quantitative (Vol. 7). Prentice Hall Upper Saddle River, NJ. Day, R. A., & Gastel, B. (n.d.). How to write and publish a scientific paper. Cambridge University Press.
- Gall, M. D., Borg, W. R., & Gall, J. P. (1996). Educational research: An introduction. Longman Publishing.
- Gastel, B. (1983). Presenting science to the public. the professional writing series. ERIC.
- Glatthorn, A. A., & Joyner, R. L. (2005). Writing the winning thesis or dissertation: A step-by-step guide. Corwin Press.
- Kothari, C. R. (2004). Research methodology: Methods and techniques. New Age International.
- Leavy, P. (2022). Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches. Guilford Publications.
- Mauch, J., & Park, N. (2003). Guide to the successful thesis and dissertation: A handbook for students and faculty. CRC Press.
- Mitcham, M. D. (1982). Guidelines for writing a research proposal and a research report. British Journal of Occupational Therapy, 45(2), 59-61.
- Murray, R. (2017). Ebook: How to write a thesis. McGraw-Hill Education (UK).
- Ostler, E. (1996). Guidelines for writing research proposals, reports, theses, and dissertations.
- Phillips, D. C., & Burbules, N. C. (2000). Postpositivism and educational research. Rowman & Littlefield.
- R[°]uger, S. (2016). How to write a good Ph.D. thesis and survive the viva. Knowledge media institute. Kents Hill: The Open University.

Cost Benefit Analysis of Vegetable Farming in River Bank Farming and Normal Vegetable Farming in Kailali

Tek Bahadur Adhikari

Lecturer Aishwarya Multiple Campus, Dhangadhi Kailali Email:tekadhikari91@gmail.com

Article History : Received Date : 2079/04/15; Accepted Date : 2079/06/15

Abstract

This study has oriented to find cost benefit relationship of off season vegetable farming and normal vegetable farming with its financial feasibility. Off season vegetable supply in Kailali district is expensive and insufficient to demand. Cost study supports to say about profitability and feasible production in the Kailali district. Demand is high, price is also high but farmers are not interested too much in off season vegetable farming. The study has applied descriptive research methodology using primary and secondary data. This study has explored some factors that increase the production cost of vegetable farming in off season for normal vegetable farming: frequent irrigation due to excess temperature, compulsory use of pesticides, costly seeds, intensive care and excess need of organic fertilizer. All farming areas of Kailali district are not appropriate for off season vegetables farming. River banks are the most appropriate and productive areas for off season vegetables farming but limited varieties of vegetable are possible to produce in those areas. Off season vegetable farming in river bank is less costly than other places. In aggregate, off season sales of vegetable has margin of profit more than 40% due to the abnormal increase in sales price.

Key Word: Off season farming, cost benefit, financial feasibility, River -bank farming.

Introduction

HELVETAS, Swiss Inter co-operation Nepal in 2006 evaluated the local practices of riverbank farming of 670 indigenous Tharu families and initiated the pilot project of river bank farming in Kailali and Kanchanpur districts of Sudur Pashim province.8000 Ha of land is appropriate for river bank farming in Kailali and kancahnpur districts. Gurung et. al (2012), Maharjan (2017) and Kumari et. al (2018) also claim that the improvement in purchasing power and well- being of farmers from the river bank farming. The Government of Nepal implemented Riverbed/Riverbank Farming Program in 2018/2019 to increase government participation in promoting riverbed farming aggressively and utilize all potential riverbeds.

Production of vegetable for domestic use and commercial purpose is very important vocation for the people. To study agro science belonging to vegetables has broad scope. Most of the people are doing the vocation but they have inadequate technical and financial know-how. Farmers do not know the proper farming methodologies as well as do not know about cost and benefit of vegetable farming. Production of vegetable during seasonal period is a common practice but the same job during off season is so challenging and advantageous also. There are some highly populated cities in Kailali district which demand large quantities of vegetables throughout the year. During the seasonal period, there is sufficient production of vegetables and a supply of vegetables that matches the full demand. But during the offseason, especially in the month from Baishkha to Bhadra, there is a big shortcoming in the supply of vegetables because of insufficient production. Most the farmers are not interested to be involved in the production of such off season vegetables. They do not know the cost benefit of that production. This study will be beneficial to the farmers who have no idea about the financial feasibility of the off season vegetable production. The cost benefit study of vegetable production is needed for further investigation and to attract more people to be engaged in this field.

Research Objectives

Off season vegetable production and its scope is an emerging issue in farming sector of Kailali district because the district has bio diversity and large area of land for production of vegetables. Many farmers are in this field. This research is going to answer the following research questions. The following research objectives are set:

- To compare the cost of production of vegetables in river bank farming and ordinary vegetable farming.
- To study the profitability of vegetable farming under river bank farming and ordinary vegetable farming.
- To study the reasons for high cost of production of vegetables during off season period.

Research Hypothesis

HO: River bank vegetable farming is less costly than normal vegetable farming.

H1: River bank vegetable farming is not less costly than normal vegetable farming.

Review of Literature

Research and extension service need to extend their efforts on the cost benefit and market information provision while they are working on increasing the yield of open pollinated varieties to respond to the expected growing demand. (Beshir & Nishikawa, 2012)

Improper management of livestock manure has resulted in loss of nutrients and organic 20 matters available in manure in addition to negative environmental impacts. (Sefeedpari et al., 2019)

Fish farming project has direct benefits which translate to improved livelihoods for locals, there are further indirect economic benefits for the whole region. These results indicate that the project can generate greater benefits for the community and the region; adequately compensating them for the opportunity forgone on their agricultural land used for the project.(Wambua,n.d.)

Using primary data, the paper shows that although intensive shrimp farming yields high returns as compared to traditional shrimp farming, when the opportunity costs and environmental costs of shrimp farming, including disease risk, are accounted for, intensive shrimp farming loses its advantage(Bhattacharya & Ninan, 2011)

People want to invest their time and money in agricultural activities which are of perpetual nature. Pretty (1995) also argued that long lasting agriculture occupation is an economically and environmentally viable option for all types of farmers, regardless of their farm location, their skills, knowledge and personal motivation. It is concluded that sustainable agriculture emphasizes economic viability, ecological soundness and social responsibility.

Adgo (2008), Mume (2007) and Alemu et al. (2004) acknowledge that the seed varieties and new technology adoption for vegetable production have been the major issues in seasonal as well as off season vegetable production. The desired ratio of cost to benefit cannot be achieved without researching on production of vegetables. The Production of vegetable at large scale at low cost can attract maximum farmers to be engaged in this occupation.

Pokhrel (2010) describes that there are no direct channel in vegetable market from producer to retailer or consumers. The marketing channels increase the price the vegetables in Pokhara city. Consumers pay high price of vegetables because of the more marketing channels engaged in vegetable sales. Marketing channels cause the price fluctuation of the vegetables in the market. Street vendors and cycle- carriers sale vegetables to consumers at cheaper price than store and other vegetable marketers.

Gurung et al. (2016) shows poverty reduction of farmers from Kapilbastu and Kaski districts were evaluated with respect to the vegetable farming where Prosperity Realization through Irrigation and Smallholder Markets (PRISM) technology was implemented. After the implementation of PRISM there has been considerable increase in vegetable farming area in both districts. Among the popular vegetables during summer cucumber in the hills and okra in the Terai are covering more land than other vegetables crops in the study area. These crops help farmers achieve net return of NRs.25240.6 and from NRs. 20425.4 per Ropani in Kaski and Kapilbastu, respectively. Land area under

vegetables crops were increased by six times in Kaski and 12 times in Kapilbastu after implementation of the project.

Vegetable farming in all regions have great potentiality for farmers' financial and economic growth. The pocket areas for particular vegetation need to explore. Existing off season vegetable farming needs to invite further farmers and investors to select the more areas for production to supply ample quantity of vegetables. All research findings show good profit margin in vegetable farming in Nepal. There are rare studies in off season vegetable farming in Kailali as well in other districts. Off season vegetable farming Kailali is challenging because of extreme drought but there is possibility of channelizing the irrigation system.

Methodology

To complete this research, the researcher needs some primary and secondary data. In the study, both the normal vegetable farming land and the river bank farming areas ware used for study. Half Ha land (i.e 5000sq, ft) was taken as a sample study of cost, output, and revenue and profit measurement. The data about sales price, cost of production, and output of vegetables related information was collected from the five vegetable markets, 15 farmers and 50 consumers of different cities of Kailali district. Cost and price of vegetable production and sales price was collected from the survey and field visit methods. There are ten commercial normal vegetable farming centers in Kailali which produce vegetables in seasonal and off season periods. There are also ten river bank farming places in Kailali that produce certain vegetables items only from Chaitra to Baishakh. The period from the month of Chaitra to Baishakh is known as off season for vegetable production perspective in Kailali. The sample size for ten normal vegetable farming centers and five river bank farming places was chosen for data collection. Primary data was collected using structured questionnaire, observation and field visits. Questionnaire was filled up by different farmers, sellers and consumers of different places of Kailali. Customers of different cities of Kailali district will be selected. Data was analyzed with the help of some accounting cost benefit analysis tools and techniques. SPSS was used to analyze the data.

Results

Table -1 Production of off- seasonal vegetables varieties in Kailali

Name of vegetable	Productive in river- bank farming land	Productive in normal vegetable farming land
Bitter guard	Yes	Yes
Tomato	No	Yes
Ladies finger	Yes	Yes
Pumpkin	Yes	No
Brinjal	No	Yes
Black Bean	No	Yes
Cucumber	Yes	Yes
Watermelon	Yes	No

Sources: Observation and field visit

The observation shows that bank river farming has option for production of limited verities of vegetables. Tomatoes, ladies fingers, black bean and brinjal are in less production practice in river bank farming whereas watermelon and cucumber production is highly feasible in river bank farming.

Table -2

Cost pattern in normal vegetable farming for half hectare of land

Cost components		Range	Sum	Mean	Std. Deviation
Cost in land preparation	10	5000.0	36200.0	3620.0	1531.01274
Labor cost	10	8000.0	197000.0	19700.0	2406.01099
cost of seeds	10	10000.0	98100.0	19810.0	3739.41469
Cost of fertilizer	10	8000.0	140000.0	14000.0	2317.08629
Cost for watering	10	4000.0	119000.0	11900.0	1197.21900
Weeding & chemical spray	10	5000.0	97000.0	9700.0	1702.93864
Valid N (list wise)	10			Rs.98730.	

Source: Survey data

Each cost component is averaged of ten samples of component cost. Total cost of farming per half Ha per season for normal vegetable farm is calculated with the sum up value of land preparation, labor, seeds, fertilizer, watering & weeding and chemical cost. Thus, calculated cost is Rs 98,730. It is calculated using ten sample normal farming areas.

Table-3

Cost pattern in river bank farming for Half hectare of land

	Stat Deviation
10000	1618.64
8800	2280.35
16800	2588.43
500	1118.04
0	0
12500	1118.04
Rs56,600	
	10000 8800 16800 500 0 12500 Rs56,600

Source: Survey data

Each cost component is averaged of ten samples of component cost. Total cost of farming per half hectare per season for river bank vegetable farm is calculated with the sum up value of land preparation, labor, seeds, and fertilizer, weeding and chemical cost. Thus ,calculated cost is Rs Rs56, 600. It is calculated using five samples of river farming areas.

Table -4

Average costs of farming per half hectare for normal vegetable farming and river bank farming

Cost items	Average cost in Normal vegetable farming (Rs)	Standard deviation	Average cost in river bank farming	Standard deviation
Land preparation	23620.00	1531.01	10000.00	1618.64
Labor	19700.00	2406.01	8800.00	2280.35
Seeds	19810.00	3739.41	16800.00	2588.43
Fertilizer	14000.00	2317.08	8500.00	1118.04
Watering	11900.00	1197.21		
Wedding and chemical spray	9700.00	1702.93	12500.00	1118.04
Total	Rs.98730.00		Rs56,600.00	

Sources: Survey data

The vegetable farming in Kailali district during off season has high feasibility for river bank farming because of low cost of production. Land preparing, watering, wedding and chemical spray cost are very less and negligible amount whereas the same cost in normal vegetable farming need more. Land preparation, wedding and chemical spray and watering cost are comparatively high in other then river bank farming. Half hector of river bank farming needs average cost of Rs56, 600 per half hector per session whereas same the quantity of normal vegetable farming land needs Rs.98,730 The survey data shows that there is high cost benefit in river bank farming.

Table -4

Production of vegetable quantity in per half hectare of land in normal vegetable farming

Name of Vegetables	Ν	Mean	Std. Deviation
Watermelon	10	657	136.32070
Cucumber	10	324	116.38867
Bitter guard	10	488	78.76830
black bean	10	458	98.86017
Pumpkin	10	279	110.93542
Tomato	10	443	71.09462
Brinjal	10	247	42.95993
Valid N (list wise)	10		

Source: Survey data

Table-5

Production of vegetable quantity per half hectare of land in river bank farming

Particular	Ν	Mean	Std. Deviation
Pumpkin	5	450.	50.00000
Black bean	5	530.	120.41595

Particular	Ν	Mean	Std. Deviation	
Cucumber	5	740.	82.15838	
Bitter guard	5	300.	79.05694	
Watermelon	5	690.	188.41444	
Valid N (listwise)	5			

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Sources: Survey data

Table-6

Area distribution for varieties of vegetables production

Nama of vagatable	River ba	nk farming	Normal vegetable farming		
Name of vegetable	Land planning	Output(Kg)	Land planning	Output(Kg)	
Watermelon	20%	450.			
Cucumber	20%	530.	20%	657	
Bitter guard	20%	740.	10%	324	
Black bean	20%	300.	20%	488	
Pumpkin	20%	690.	10%	458	
Tomato			20%	279	
Ladies finger			10%	443	
Brinjal			20%	247	
Total	100% = ½ Hectare		100%= ½ Hectare		

Sources: Survey data

For comparisons point of view half hectare of river bank and normal vegetable farming land area is divided into small plot of varieties of vegetable production in river bank and normal vegetable farming are not totally same. Some vegetable kinds like watermelon, cucumbers, bitter guard are highly preferred in river bank farming but some vegetable kinds like tomato and ladies fingers are not best fit to produce in river bank farming. Pumpkin, bitter guard, cucumber can be produced in both river bank farming as well as in normal vegetable farming land area but output of production for the same products shows higher output in same quantity of land in river bank farming. Bitter guard production shows the production ratio in both area of lands (740kg: 648kg); pumpkin production is more productive in river bank farming (690kg: 458kg) ;black bean production is more productive in normal farming land are (300kg:488kg);cucumber farming is more effective in river bank farming (530kg:657kg)

Table-7

Off season average price of vegetables in the market

Vegetable items	Seasonal price range	Average price	Off season price range	Average price
Bitter guard	Rs 50- 100per kg	Rs75	Rs 30- 80per kg	Rs55
Tomato	Rs 20-40per Kg	Rs30	Rs 50-120per Kg	Rs85
Ladies finger	Rs 50-100per kg	Rs75	Rs 40-100per kg	Rs70
Pumpkin	Rs 40-70per kg	Rs55	Rs 25-70per kg	Rs47.5

Vegetable items	Seasonal price range	Average price	Off season price range	Average price
Brinjal	Rs20-30per kg	Rs25	Rs30-50per kg	Rs40
Black/Bean	Rs30-50per kg	Rs40	Rs60-120per kg	Rs90
Cucumber	Rs 50-100 per Kg	Rs75	Rs 30-60 per Kg	Rs45
Watermelon	Rs50-60per kg	Rs55	Rs25-40per kg	Rs32.5

Source: Survey data

It shows that there is always higher price of vegetables during off season period. During seasonal period, supply of vegetables is sufficient. Small farmers are also able to produce sufficient vegetables for their domestic consumption. But during off season period all farmers are not able to produce vegetables in their land. Price of vegetables hike due to the lower supply and production of vegetables during off season period. Cucumber, watermelon, pumpkin and bitter guard are the vegetable producible in off season time; Chaitra to Jestha in river bank farming. Exceptionally, market price of these vegetables is comparatively lower in off season time.

Table -8

Average production of vegetable in half hectare of River bank farming

Name of Vegetable	Ν	Sum	Mean	Std. Deviation
Watermelon	5	450	690.	188.41444
Cucumber	5	3700	740	82.15838
Bitter guard	5	500	300	79.05694
Black bean	5	2650	530	120.41595
Pumpkin	5	2150	430	83.66600
Valid N (list wise)	5			

The river bank farming of five farm houses shows the average production of different vegetables with the calculated standard deviation. Watermelon has average 690kg, cucumber has 740kg, bitter guard has 300kg, and black bean has 530kg and pumpkin has 430kg output in altogether in half hectare of land.

Table -9

Average production of vegetable in normal vegetable production

Name of vegetables	Ν	Mean	Std. Deviation
Cucumber	10	657.9	116.38867
Bitter guard	10	324	78.76830
Black bean	10	488	98.86017
Pumpkin	10	458	110.93542
Tomato	10	279	71.09462
Brinjal	10	247	42.95993
Ladies finger	10	443	88.57514
Valid N (listwise)			

The river bank farming of five farm houses shows the average production of different vegetables with the calculated above standard deviation. Cucumber has 657.9kg, bitter guard has 324kg, and black bean has 488kg and pumpkin has 458kg, tomato 279kg, and brinjal 247kg and ladies finger 443kg output in altogether in half hectare of normal vegetable production land.

Table -10

Average revenue from sales of vegetable output from half hectare of vegetable land

	Sales Revenue					
Vegetable items	R	iver bank fari	ning	1	Normal vegetab	ole farming
	Output	Price	Revenue	Output	Price	Revenue
Bitter guard	300Kg	Rs 55	16,500	324kg	Rs 55	17820
Tomato		Rs 85		279kg	Rs 85	23715
Ladies finger		Rs 70		443kg	Rs 70	31010
Pumpkin	430Kg	Rs 47.5	20425	458kg	Rs 47.5	21755
Brinjal		Rs 40		247kg	Rs 40	9880
Black/Bean	530Kg	Rs 90	47700	488Kg	Rs 90	43920
Cucumber	740Kg	Rs 45	33,300	657Kg	Rs 45	29565
Watermelon	690Kg	Rs 32.5	22425		Rs 32.5	
Total			Rs1,40,350			Rs1,77,665

Source: Survey data and observation

Total sales revenue from the half hectare of normal vegetable farming land is greater than the sales revenue of river bank farming. The reason for the variation in sales revenue is the higher selling price of tomato; there is no tomatoes production in river vegetable farming but in normal vegetable farming tomato is possible and it earns high revenue. An average season's yield of vegetable products from river bank farming is Rs1, 40,350, while an average seasonal yield from normal vegetable farming Rs1, 77,665

Table -11

Comparative inflows in River bank farming and normal vegetable place from half hectare

Areas of production Cash flow	River bank farming Average sales revenue	Normal vegetable farming Average sales revenue	
Cash inflow (sales)	1, 40,350,	Rs1, 77,665	
Cash outflow(cost)	Rs56,600	Rs 98,730.00.	
Net income	Rs 83,750	Rs78,935	
Profit margin	59.67%	44.43%	

Net profit Margin	$= \frac{Net \ profit}{Sales \ revenue} \times 100$		
Under River bank farming	$= \frac{83750}{140350} \times 100 = 59.67\%$		

Under Normal farming $= \frac{78935}{177665} \times 100 = 44.43\%$

In river bank farming sales, profit is higher than in normal vegetable farming sales. It is because of higher cost components and their occurrences in production process. Cost is very less in amount in river bank farming.Net profit margin is 59.67% in river bank farming sales but in agro farming sales there is only 44.43%

Discussion

The study shows that river bank farming is the best alternative place for production of off season vegetable production. The seasonal period for river bank vegetable farming is considered as off season for normal vegetable farming centers in Kailai. River bank farming has limited varieties of vegetables for but it has broad scope for production of vegetables. Chaudhary, Rana community and some Indian migrants have been engaged in these vegetable productions. Production of cucumber, pumpkin and bitter guards are highly successful in river bank farming at minimum cost. As compared to normal vegetable farming, river bank farming has low risk of insects' effect in the growth of vegetables. Cost of land planning, irrigation, wedding, chemical spray and fertilizer is also low in river bank farming. There is great risk of flash flood in river bank farming that causes great loss. The cost of production also decreases due to fewer components and volume costs. Profit margin can be maximized in river bank farming. In normal vegetable farming, the excessive hot temperature, lack of proper irrigation facility and other insecticide relating problems are the root causes for good production of vegetables in normal vegetable farming in Kailali. There are very few commercial vegetable farms that continue their vegetable farming business during off season due to production uncertainty. There is no proper agro technology applied in normal vegetable farming in Kailali.

References

- Beshir, B., & Nishikawa, Y. (2012). Cost-benefit analysis of small-scale onion and tomato farming in Melkassa area: Central Rift Valley of Ethiopia. *Tropical Agriculture and Development*, 56(4), 143–150.
- Bhattacharya, P., & Ninan, K. N. (2011). Social cost-benefit analysis of intensive versus traditional shrimp farming: A case study from India. *Natural Resources Forum*, *35*(4), 321–333.
- Sefeedpari, P., Vellinga, T., Rafiee, S., Sharifi, M., Shine, P., & Pishgar-Komleh, S. H. (2019). Technical, environmental and cost-benefit assessment of manure management chain: A case study of large scale dairy farming. *Journal of Cleaner Production*, 233, 857–868.
- Wambua, M. (n.d.). A Cost Benefit Analysis of the Fish Farming Enterprise and Productivity Program in Kenya. International Institute of Fisheries Economics & Trade.
- Gurung, B., Thapa, R. B., Gautam, D. M., Karki, K. B., & Regmi, P. P. (2016). Commercial Vegetable Farming: An Approach for Poverty Reduction in Nepal. Agronomy Journal of Nepal, 4, 92–106. https://doi.org/10.3126/ajn.v4i0.15518
- Pokhrel, D. M. (2010). Comparison of farm production and marketing cost and benefit among selected vegetable pockets in Nepal. *Journal of Agriculture and Environment*, 11, 10–25.
- Pretty, J. 1995. Regenerating Agriculture: *Policies and Practice for Sustainability and Self-Reliance*. Earth Scan Publications Ltd (London) p.320
- Vidogbéna, F., Adégbidi, A., Assogba-Komlan, F., Martin, T., Ngouajio, M., Simon, S., Tossou, R., & Parrot, L. (2015). Cost:Benefit analysis of insect net use in cabbage in real farming conditions among smallholder farmers in Benin. Crop Protection, 78, 164–171.

- Maharjan, S. K. 2017. Riverbed farming as source of income, family nutrition and food security for landless and poor farmers in Terai Region of Nepal. Innovative Techniques in Agriculture 2 (1):316–19
- Gurung G., Koirala P., Pande D. P., Basnet D. B. and Kafle O. (2012). Promoting Rural Livelihoods through Riverbed Vegetable Farming in the Tarai Region of Nepal. Journal of Int e rnational De v e l opment and Cooperation.18(4):113-121.10.15027/33192

Analytical Views of Students' Admission, Enrolment and Completion of Different Programs of Aishwarya Multiple Campus

Khem Raj Pant

Lecturer Aishwarya Multiple Campus, Dhangadhi, Kaiali E-mail : kpant7@gmail.com

Article History : Received Date : 2079/04/20; Accepted Date : 2079/07/10

Abstract

Aishwary Multiple Campus (AMC), established in 2063 B.S., is an only community campus in the far western province of Nepal which provides BSc. in general science. It has contributed a lot to uplift higher education providing quality education through different programs. Now there are three programs namely BBS and MBS under Management stream, B.Sc. in Science. This study focuses on the analysis of students 'admission, enrolment and completion trend at two different programs of AMC. The data prepared by EMIS unit of campus has used. The year wise students' enrolment pattern in B.Sc. and BBS programs of AMC is analysed. Admission trends in BSc program show a yearly increase in admission from 2009 to 2011 but a decrease from 2012to 2015. Student enrolment showed a fluctuating trend between 2009 and 2015. Comparatively, in BBS there is continuous rise in admission. But completion in science programme was higher than in management programme.

Key Words: Trend analysis, admission, enrolment, completion.

Introduction

Higher education is an indicator of a nation's economic and social growth. It contributes to the preservation and development of the nation's historical and cultural heritage. Similarly, it aids in the production of competent people in a global context and promotes and stimulates research in the many fields of education. Since the foundation of democracy in the 1950s, the growth of higher education in the nation has been fast, despite its little history. The creation of Tri Chandra College, the first institution of higher education in Nepal, in 1919 (originally affiliated with Calcutta University, subsequently with Patna University of India) marked the beginning of modern higher education in Nepal. The TU was established in Kathmandu in 1959. Prior to the foundation of Tribhuvan University, several subjects were taught in Kathmandu as part of the Patna University curriculum. The university administered exams with its own question papers and awarded degrees to those who passed. In Nepal, Tribhuvan University is solely responsible for offering higher education across the nation. (Upadhaya,2018).

In Nepal there are three types of higher educational institutions namely constituted campus of university, community campus and private campus. Community campuses are non-profit organization. The ownership of campus is Creating an educational environment is not only the responsibility of Government but community involvement is more accountable for it. Aishwarya Multiple Campus (AMC) is a community campus and it was established due to the high demand for science education in the far west region. Before this, there was no science campus even in Seti zone and only one community campus that offered undergraduate science program in far west province. Later as demand, it starts management faculty. Now it has three program namely B.Sc., BBS and MBS. In the contest of Nepal, community campus has pioneer role in the development of higher education sector of Nepal. It was established with the efforts of local people, teachers, guardians and intellectuals. (AMC,2016).

It is seen that today education in Nepal is milt commercialized but majority students still enrolled in public or community colleges. (Gaulee & Bista, 2018).

In this circumstance, many higher educational institutions in Nepal have offered undergraduate program in management whereas few have offered science. AMC has BBS program in management and B.Sc. program in science. It has also one postgraduate program namely MBS in management faculty.

Introduction about B.Sc. program

Science is equally important as other disciplines, such as management and the social sciences. The increasing focus on STEM education is at the forefront of contemporary education issues. BSC is one of the undergraduate fourth year annual based program. It aims to produce highly qualified undergraduate having strong foundation in the different discipline of science and technology. (*Curriculum*, n.d.). Science education is important to use good technology for the country's development. Also, what the study has shown is that (STEM) education is important for competition and participation in the global market. (Chisman, n.d.) .BSC program is the first academic program of AMC, which was offered by AMC in 2063A.D. AMC has admission permission of 30 students each in physical and biological group. Physical group students can specialize in Physics, Chemistry or Mathematics. Similarly; Biology group can specialized in Zoology or Botany.

Introduction about BBS program

BBS is the one of the annual program under Management Faculty (MOF) of Tribhuvan University (TU). The objective of BBS program is to develop students into competent managers in any organized activities. The program aims to provide graduates with a range of employment opportunities and the entrepreneurial skills necessary to establish jobs in diverse industries. (*Curriculum*, n.d.) Success entrepreneurs always get opportunity by education, experience and environment. Binod Krishna Shrestha writes in his research article "Business Opportunity Recognition and development process: A study of Nepalese entrepreneurs" that entrepreneurs get opportunities from educational program like BBS and from their experience. BBS is of the academic program that provides knowledge to grab opportunity in Business. (Shrestha, n.d.) BBS program is the second academic program of AMC, which was offered by AMC in 2064A.D. BBS is an annual base program and it has free permission to get any number of admission. It has three specializations namely Account, Finance and Marketing.

Purpose of Study

The study aim to achieve the following objectives:

- 1. To examine the status of students admission into the B.Sc. and BBS departments of the AMC
- 2. To examine the status of students enrolment into the BSc and BBS departments of the AMC
- 3. To examine the status of students completion into the B.Sc. and BBS departments of the AMC
- 4. To determine the status of students pass out into the departments of B.Sc., BBS of the AMC.

Research Questions

The following questions will be answer in this study;

- (1) What is the status of students" admission in the BSc. and BBS of AMC?
- (2) What is the status of students" enrolment in the BSc. and BBS of AMC?
- (3) What is the status of completion into the department of B.Sc. and BBS ?
- (4) What is the status of pass out into the department of B.Sc. and BBS?

Methodology

This study used the student's admission, enrolment data prepared in 2079 by Educational Management Information systems (EMIS) unit of Aishwarya Multiple Campus. In this paper, I studied the data of admission, enrolment and

completion in postgraduate programmes. I have contextually defined admitted students as the number of applicants who got admission with a deposit of admission fee confirmation to pursue a programme, and enrolled students as number of admitted applicants who registered and participated in the first year exam. I also defined completed students as the number of students who have successfully appeared in the 4th year exam of concerned year. Pass out students were defined as the students who take takes characteristics certificate after passed all subjects. The study's research design was descriptive in nature. According to Best and Khan (1998), Descriptive research focuses on existing circumstances or connections, such as trends. The research included BSC and BBs students who gained entrance, participated in classes, and graduated from their respective programmes. The acquired data was analysed using frequency counts and simple percentage to address the four research objectives posed by the study. Data were analysed using Statistical Package of Social Sciences (SPSS) version 12.0 (SPSS, Inc. Willy, 2004) and MS Excel.

Result and discussion

Admission and Enrolment Status of B.Sc. Programme

The admission and enrolment trends of students in BSc programme is examined from Year 2064 to year 2076 and the data records are presented in Figure 1 below;

Year	Admission	Enrolment
2064	15	14
2065	23	22
2066	41	41
2067	45	40
2068	69	66
2069	91	85
2070	104	93
2071	74	64
2072	45	41
2073	56	49
2074	41	37
2075	34	31
2076	43	41

Source: EMIC Unit AMC

From figure 1, it is observed that the year 2070 recorded the highest number of admission (104) and enrolment(93). The results show admission increased yearly from 2064 to 2070, but decreased from 2071 with some fluctuation. The highest number of enrolled students (93) was recorded in 2070, which represented 104 no of total admitted students in same year. The lowest number of enrolled students (14) in 2064 representing 15 admitted students. Generally, the results show that there is decreasing trend in admission and enrollment especially from 2073 to 2075. This study has shown a significant decrease in the total number of admissions in the seven year period 2071 to 2076, when compared to the previous seven-year period study of year 2064 to year 2070.



(Figure: 1).

Admission and enrolment trend of BBS.

The admission and enrolment trends of students in BBS programme is examined from Year 2064 to year 2076 and the data records are presented in Table 2 below;

Year	Admission	Enrollment
2065	14	12
2066	09	08
2067	24	20
2068	64	57
2069	39	36
2070	39	36
2071	73	70
2072	56	52
2073	95	86
2074	137	130
2075	139	135
2076	179	163
2077	343	312

Sourse : EMIS,AMC

This study has shown a significant increase in the total number of admissions in the seven year period 2071 to 2077, when compared to the previous seven-year period study of year 2065 to year 2071, in the BBS program. With total admission of 56 students in year 2070, this was a 366.67% increase on the 12 total admitted students of the year 2065. But total number of admitted students in 2077 was 312; this was 512.5% increase in last seven years.



The table below show the trend of student completion per year. From the table, the active students are students who are in final year of their programme.

Academic Batch Year	Enrolment	Completion	Completion %
2064 to 2066	14	13	92.86%
2065 to 2067	22	19	86.36
2066 to 2068	41	38	92.68%
2067 to 2069	40	38	95%
2068 to 2070	66	62	93.94%
2069 to 2071	85	77	90.59%
2070 to 2073	93	77	82.78%
2071to 2074	69	58	84.06%%
2072 to 2075	64	57	89.06%
2073 to 2076	41	34	82.93%
2074 to 2077	49	34	69.39%
2075 to 2078	31	28	90.32%
Above table, it is observed that the academic batch 2074 to 2077 recorded lowest completion percentage with 69.39%. Similarly, academic batch 2068 to 2070 shows the highest completion percentage with 93.94%. Average completion rate is 86.99 % with frequently fluctuation. With rise in enrolment number of students the completion number also has been raising. The first completion batch was 2064 to 2066 with 14 students' enrolment and 13 pass out. Highest enrolment number and completion number was 93 and 77 respectively in academic batch 2070 to 2073. But for academic batch 2075 to 2078 the enrolment number was 31 and completion number 28. There is fluctuation in enrolment and completion number of students.



Completion rate of BBS

The table below show the trend of student completion per year. From the table, the active students are students who are in final year of their programme.

Academic Batch Year	Enrolment	Completion	Completion
2065 to 2067	12	10	83.34%
2066 to 2068	08	06	75%
2067 to 2069	20	15	75%
2068 to 2070	57	50	87.72%
2069 to 2071	36	29	80.56%
2070 to 2072	36	29	80.56%
2071to 2074	70	46	65.71%
2072 to 2075	52	41	78.85%
2073 to 2076	86	64	74.42%
2074 to 2077	130	94	72.31%
2075 to 2078	135	109	80.74%

Source: EMIS AMC

Above table, it is observed that the academic batch 2071 to 2074 recorded lowest completion percentage. Similarly, academic batch 2068 to 2070 shows the highest completion percentage. Average completion rate is 76 percent with frequently fluctuation. With rise in enrolment number of students the completion number also has been raising. The first completion batch was 2065 to 2067 with 12 students' enrolment and 10 pass out. But for academic batch 2075 to 2078 the enrolment number was 135 and completion number 109.



Graduate trend of B.Sc.

The students enrolled in 2064 completed their three-year graduation course in 2066. Therefore, the students who passed graduation course started taking certificates from the collage from 2067. Here is the analysis of graduate students based on character certificates.

Year	Total	Boys	Girls
2010 (2066)	11	6	5
2011	26	20	06
2012	28	23	05
2013	34	24	10
2014	29	17	12
2015	21	14	07
2016	48	31	17
2017	52	37	15
2018	50	37	13
2019	26	16	10
2020	25	10	15
Total	350	235	115

Above table, it is observed that the year 2010(A.D.) is the first graduate year and the graduate number was 11. Year 2017 (A.D.) is recorded highest graduate number with 52 number of graduate. There is fluctuation in graduation number. It is observed that number of graduate boys is higher than girls except year 2020; also among total number of graduate students boys' graduation number is more than double of girls' graduation.



Graduate trend of BBS

The students enrolled in 2065 completed their three-year graduation course in 2067.therefore; the students who passed graduation course started taking certificates from the collage from 2067. Here is the analysis of graduate students based on character certificates.

Year	Total	Boys	Girls
2011(2067)	06	02	04
2012	08	04	04
2013	11	07	04
2014	09	08	01
2015	21	09	12
2016	07	02	05
2017	14	08	06
2018	31	10	21
2019	41	17	24
2020	37	15	22
Grand Total	185	82	103

Above table, it is observed that the year 2011(A.D.) is the first graduate year BBS Program and the graduate number was 06. Year 2019 (A.D.) is recorded highest graduate number with 41 number of graduate. There is increasing trend with fluctuation in graduation number. It is observed that total number of graduate girls is higher than boys.



Conclusion

The results of the research indicate a rapid upward trend in the number of admission and enrolled students over time of BBS program, whereas in science there is decreasing order in admission and enrolment. But there is fluctuation in science with rising sign in last two years. It was also discovered that the completion percentage of science-based programmes was higher than BBS. This study found that number of girls in admission, enrolment and completion in BSC is low but in BBS program the number of admission, enrolment and graduate is higher.

Reference

- Prabha journal -2018. Higher Education in Nepal Jitendra Prasad Upadhyay (Ph D) Associate Professor, Nepal Commerce Campus)
- AMC, (2016), Aishwatya Multiple campus, Annual Report FY 2015/16 EMIS Unit, Kailali, Nepal
- Gaulee, & Bista. (2018, January 1). Reenvisioning Community Colleges in Nepal: Preparing All Students for Success. Retrieved January 19, 2023, from https://www.researchgate.net/publication/324329327 Reenvisioning Community Colleges in Nepal P

reparing_All_Students_for_Success

- Bachelor of Science, B.Sc, Tribhuvan University, TU. (n.d.). Bachelor of Science, B.Sc, Tribhuvan University, TU. Retrieved January 19, 2023, from <u>https://www.collegesnepal.com/tribhuvan-university/bachelor-of-science/</u>
- Chisman. (n.d.). Tertiary Education for the Knowledge Society. Tertiary Education for the Knowledge Society. Retrieved January 19, 2023, from <u>https://www.oecd.org/education/skills-beyond-school/41314497.pdf</u>
- Curriculum. (n.d.). Curriculum. Retrieved January 19, 2023, from <u>https://www.fomecd.edu.np/cms/uploads/4-Year%20BBS%20full%20Curriculum.pdf</u>)

RECOGNITION AND DEVELOPMENT PROCESS: A STUDY OF NEPALESE ENTREPRENEURS. BUSINESS OPPORTUNITY RECOGNITION AND DEVELOPMENT PROCESS: A STUDY OF NEPALESE ENTREPRENEURS. Retrieved January 19, 2023, from <u>https://www.researchgate.net/publication/303995051_BUSINESS_OPPORTUNITY_RECOGNITION_AND_DEVELOPMENT_PROCESS_A_STUDY_OF_NEPALESE_ENTREPRENEURS</u>

Role of Hegemony: Revisiting Dhrub Sapakota's Story "The Scream"

Narayan Datt Awasthi

Lecturer

Aishwarya Multiple Campus, Dhangadhi, Kailali Email : narayan.awasthi2073@gmail.com

Article History : Received Date : 2079/04/20; Accepted Date : 2079/07/10

Abstract

Although all human beings are considered equal in this era, yet unequal power relations do exist among and between them. Basically, dominant group deliberately creates, controls, and disseminates hegemonic discourse socio-culturally, particularly through caste and patriarchy to dominate dominated group. The former group negatively represents the latter group. However, the dominated group takes the discourse, uncritically, as taken for granted and remains continuously suppressed through consent. In other words, they are neutralized and naturalized, which ultimately results in legitimization through acceptance. Therefore, this study focuses on concept of hegemony, creation of hegemonic discourse socio-culturally, the way it disseminates power through caste and patriarchy, and neutralizes and naturalizes the dominated group in consent. As a sample of study, Dhrub Sapakota's story, "The Scream", is taken and its Critical Discourse Analysis is done by using Van Dijk's socio-cognitive model. After observing the story from the lenses of hegemony, mind control and negative representation, it was found that poor, downtrodden, and uneducated three generation Badi women are involving in prostitution taking it as a profession for livelihood. Their mind is controlled and neutralized. As a result, they legalize this practice, taking it naturally, despite the fact that it is illegal. All marginal and dominated people like Badi women should be liberated through awareness, resistance and empowerment.

Key Words: Hegemony, neutralization, naturalization, mind control, negative representation

Introduction

It is believed that all people can enjoy freedom, justice and human rights through equal treatment, in this 21st century. Yet, there are inequalities prevailed regarding the division of people into two groups: dominant and dominated. The dominant group has "access to scarce social resources, such as force, money, status, fame, knowledge, information, culture and...various forms of public discourse and communication" (Lukes, 1986, Wrong 1979, cited in Van Dijk, 2005, p.353). Because of such access, their power "may be integrated in laws, rules, norms, habits and even a quite general consensus, and ... take the form of what Gramsci called hegemony" (cited in Van Dijk, 2005, p.355). So, dominant group creates and controls hegemonic discourse and consequently, "controls minds and actions" of the dominated group. Such discourse is created by elites through socio-cultural domain- caste and patriarchy. The oppressed group takes discourse as "taken-for-granted everyday life" (Van Dijk, 2005, p.355) because of acceptance and legitimization. Due to such acceptance, the minorities get neutralized and then, "legitimate such power and even find it natural" (Van Dijk, 2005, p.355). In this way, they naturally fulfill the vested interest of the elites.

Role of hegemony is crucial and complex. So, Van Dijk (1993) states "the concept of hegemony and its associated concepts of consensus, acceptance, and management of the mind also suggest that critical analysis of discourse and dominance is far from straightforward" (p.265). Elites create and control discourse, by disseminating power socioculturally, which controls dominated people's minds and actions, for which they are unaware of. However, they accept and legitimize the discourse in consent. As a result, they are neutralized and naturalized. For instance, in Dhrub Sapakota's story "The Scream" Badi, downtrodden and poor women, are naturalized and neutralized to accept and legitimize prostitution as only profession for their livelihood. This paper basically focuses on concept of hegemony, how hegemonic discourse is created socio-culturally, how it disseminates power through caste and patriarchy to dominate marginal people, and how consent operates to neutralize and naturalize Badi women in the story. The purpose of this study is to explore neutralization and naturalization of the marginal people to accept and legitimize inhuman social evil as a consequence of hegemonic discourse created and controlled by elites through socio-cultural domain. Although present constitution of Nepal, 2072 B.S. has a provision that all citizens shall be equal before law and no discrimination shall be made on the basis of caste, gender and religion (Chapter 3, Article 18), it has been legitimized socio-culturally, which cannot be avoided immediately. Hence, the issue of discrimination and domination of dominant group against dominated group is still relevant for research. In this study, I explored how hegemonic discourse neutralizes and naturalizes the marginal people for acceptance and legitimization of inhuman social evils like prostitution by controlling their minds and actions.

Background

This story is written in 2001. It is the time right after the restoration of democracy in Nepal. Badi belongs to untouchable caste in Terai and hilly regions of districts of Far-western and Mid Western part of Nepal. The term Badi is "derived from the Sanskrit word 'vadyabadak'. It means one who plays musical instruments, referring to the period when they were a caste of nomadic entertainers in neighboring Indian states as Bihar and Uttar Pradesh" (Badi Community of Nepal, 2012, p.1). This community is very low in socio-economic status. They are untouchable within untouchables.

As their historical background is concerned, the Badi people moved to Western Nepal from India in the 1700s, working as entertainers. The local rulers and the rich landlords provided them housing, land, food and clothes. In turn they provided the rulers and the landlords' entertainment and sexual pleasure. After the abolition of autocratic Rana regime in 1950, the rulers and landlords in western Nepal had lost their power. They could not support Badi women as before. They, then, began prostituting themselves to other common males for their income. Lacking education and other access, Badi girls grow up learning that prostitution is actually a way of life for them. They learn all about sex and how to dress and act to attract customers from other members of their community. Young girls initiate this profession from the Special ceremony called 'Natthi Kholne'. In other words, it is opening of the nose- ring. At this day, the client gives the girl jewelry, clothes and some money before deflowering her. Moreover, Badi community is poor and uneducated. Since this community is excluded socio-culturally, people are marginalized economically and politically. However, 2007 onwards, there are changes in the lives of Badi women.

Literature Review

This story "The Scream" by Nepali Writer Dhrub Sapkota depicts life of untouchable caste women of Western Nepal. Thapa (2001) asserts that Dhruba Sapakota's s story, "The Scream" focuses on Badi, a caste, in which women have long worked as sex workers. The narrative has a documentary aspect to it and gives the reader a view of Nepal's western plains. This quotation indicates that there is issue of domination through socio-cultural domain. Since inequalities are created in the form of gender and caste, Badi women are exploited as sex workers. They do not resist despite such domination of dominant groups over them.

Such domination over dominated group is essential to unveil. Therefore, most of the pioneer critiques of Critical Discourse Analysis use this research methodology to analyze media discourse and racial discrimination. For instance, Van Dijk (2005) asserts, "Ethnic and racial inequality in all social, political and cultural domains is multiply expressed, described, planned, legislated, regulated, executed, legitimized, and opposed in myriad genres of discourse and communicative events"(P.95). I have taken the story as sample to analyze. Cook (1990) argues novels, short conversations, or groans might be named "discourse" (p.483). About critical discourse analysis,

Widdowson (1995) criticizes it as it is talking about something every day and it is vague and it is ideological interpretation and not an analysis (p.158). Although this writer criticizes the critical discourse analysis as only interpretation, he accepts that it is "ideological" interpretation. Wodak (2015) argues that "ideology for Critical Discourse Analysis is seen as an important aspect of establishing and maintaining unequal power relations" (p.10). Furthermore, when one talks about ideology, there is issue of power, which creates inequalities.

Conceptual Framework

Hegemony refers to domination of powerless group by powerful groups basically through consent. Sometimes coercion may be there in case of state power. According to Fairclough and Chuliarki (1999):

Hegemony is relations of domination based upon consent rather than coercion, involving

the naturalization of practices and their social relations as well as relations between practices, as matters of common sense- hence the concept of hegemony emphasizes the importance of ideology in achieving and maintaining relations of domination. (p.24)

Hence, hegemonic discourse is created by the elites in their own interest. Such discourse disseminates through social- cultural domain. In other words, discourse is created against women and people of lower caste through patriarchy and class people. Furthermore lower- caste women are in twice domination because they belong to poor class and under privileged group. Being uneducated and poverty-stricken, they cannot resist such discourse and take it for granted. So, patriarchy and castes are ideologies prevalent in the socio-cultural domain, which create and control hegemonic discourse to dominate marginal class people.

Caste is prevalent major ideology that creates inequality among people. Hierarchy is created through cast division. Brahmin, Kshetriya, Baisya and Shudra are four basic castes in Indian and Nepalese society. In comparison of upper castes, Sudras are excluded socio- culturally. They are in particular excluded from "sacred initiation, Vedic study and right of kindling the sacred fire (Macdonnell, 1914, p.235). Likewise, Rigvedic hymns are also source that supports in creation of hegemonic discourse. Woodbourne (1922) also asserts, "The Brahmins were created from the creator's mouth, the Kshetriya was made from his arms, Baisyas was from his thighs; Sudras sprang from his feet" (p. 525-526). Elites discriminate the lower caste people in case of work they are supposed to do. In comparison to other three castes, Sudras' occupation is "only humble service to the three higher castes" (A.S. Woodbourne, 1922, p.529). Although there are various sub-castes and number of people who belong to this servile class, there is lack of unity. Nigam (2019) asserts, "... 'untouchability' creates 'disunity' among Sudras" (126). This acceptance not only emphasizes their disunity, it also shows how the lower caste people are demeaned through hegemonic discourse created through socio-cultural domain.

Patriarchy is another prominent ideology that creates discrimination in society. Male as centre has basically marginalized the women. To suppress women, various kinds of stereotypes are created. Such false images are taken for granted by the minorities or those women. As a result, they practice whatever is told by patriarchal norms and values. In the same way, Brownmiller (1975) argues that women are misrepresented through stereotypes and in the interest of males they are objectified and treated as part of barter. Therefore, the justification of inequality involves to complimentary strategies namely the positive representation of the own group and the negative representation of the 'Others' (Van Dijk, 2005, p. 263). Regarding submissive role of women, Hunt (2012) also argues that in Genesis, the role of women is to serve males and females are by birth subordinate to men as they are born from the ribs of males (p.536). Hence, the discourse is created in such a way that women are treated unequally and they are made submissive.

Such hegemonic discourse created through caste and patriarchy controls minds of dominated group. As a result they accept domination of those privileged group being mentally neutral. They take the discourse as taken for granted and practice it naturally being unaware that they are under domination. Freire (2005) asserts, "The

oppressed are unaware that they are downtrodden. But their perception of themselves as oppressed is impaired by their submersion in the reality of operation" (p.227). They practice any activities naturally and legitimize without any resistance. Therefore, hegemonic discourse created by patriarchy and upper caste people through socio-cultural domain dominates and creates inequality among people.

Therefore, to analyze the story "The Scream" by Dhrub Sapakota critically, I used the socio-cognitive model of Van Dijk. Basically, mind control as discursive strategies in which mental representation of "negative representation of of there and self-positive representation" is observed. It is very close to triangle of discourse-cognition- society. Discourse is created in society. People internalize it mentally. The lens used in this study is hegemony, mind control and negative representation. The approach for analysis is to show how domination of elites have neutralized and naturalized the downtrodden and poor women.

Methodology

Since research related to Critical Discourse analysis is qualitative in nature, argumentation is main tool for this present research. The field of study is the story "The Sream" by Dhrub Sapakota. By doing close reading of the text, discourse is analyzed. Research articles, books and other related materials are collected, studied and critically reviewed. Secondary data is used for the analysis. Philosophical paradigm used is transformative.

Hegemonic discourse created socio-culturally dominates marginal people. To show their domination, Critical Discourse Analysis research is significant. Hegemonic discourse controls minds of the marginal people. Managing the mind of other is essentially a function of "text and talk". Van Dijk (2005) argues, "Dominance may be enacted and reproduced by subtle, routine, everyday forms of text and talk that appears natural and quite acceptable" (p.254). Critical discourse analysis (CDA) is a "type of discourse analytical research that primarily studies the way social power abuse, dominance, and inequality are enacted, reproduced, and resisted by text and talk in the social and political context" (Van Dijk, 2005, p. 352). So, analysis of unequal power relations, abuse and domination is necessary aspect.

Critical Discourse analysis plays significant role to demystify relations of discrimination and dominance. Therefore, it is concerned with "analyzing opaque as well as transparent structural relationships of dominance, discrimination, power and control as manifested in language, and it aims to investigate critically social inequality as it is expressed, signaled, constituted, legitimized and so on by language use" (Wodak, 2015, p. 2). Likewise, Fairclough (1985) brings forth importance of CDA, which also "needs to focus on the discursive strategies that legitimate control, or otherwise "naturalizes" the social order, and especially relations of inequality" (p. 254). So, Critical Discourse Analysis focuses on naturalized social order as the effect of power created through discourse.

Results and Discussion

The aspects like the context of the story, some sentences spoken by the major character, Old Badeni, lexical style, hyperbolic expression, topic choice and their cohesive connection with domination, naturalization, and neutralization of Badi people are critically analyzed through the lens of hegemony, mind control and negative representation.

Analysis of context is also important aspect to show how hegemonic discourse naturalizes and neutralizes the marginal people. This story has setting in Western Nepal. In Nepalese society caste and patriarchy remain as dominant ideologies. Ideology for CDA is seen as an important aspect of establishing and maintaining unequal power relations" (Wodak, 2015, p.10). For instance, stereotypes are created against women (Brownmiller, 1975). Those stereotypes are transferred in oral or written form. Marginal people basically women and downtrodden, poor, uneducated and untouchables like Badi, accept the discourse uncritically. Although Constitution of Nepal has

announced caste and gender discrimination a serious crime, it has been legitimized in society. It still exists. Gramsci (1971) points out, "it is a view of the world that is inherited from the past and uncritically absorbed and which tends to reproduce a sort of social homeostasis, or moral and political passivity" (Cited in Stoddert, p.201). As a result, Badi women of three generations are involving in prostitution: "She has accepted the body as a means of making a living" (Sapkota, 2001, p.218). Through this socio-cultural means Badi women are oppressed. Even their mental representation is determined and expressed through their acceptance.

Hegemonic discourse, created through socio-cultural context, makes oppressed people accept the discourse created by elites. For instance, Old Badeni's words are taken as its evidence: "Go ahead if you want to die of hunger tomorrow" (Sapkota, 2001, p.216). In this sentence, the speaker is old Badeni. When the grand- daughter Badeni takes permission from her grandmother to go for sleeping, the grandmother Badeni answers conditionally and negatively. She does not give her permission. She means that if she is ready to die of hunger she can go. Otherwise, she has to go for sleeping. Function of this imperative sentence is threatening. In this socio-cultural context, this sentence shows that grandmother Badeni's mind is controlled through hegemonic discourse. As a result, she is neutralized and naturalized to accept prostitution as only means of income.

Acceptance ultimately results in legitimization through neutralization and naturalization. For example, in the following extracts: "Old mother! Are all these your decendants? Are they keeping up family tradition?" "Yes, Babu! They honor family tradition." (Sapkota, p.217), an unnamed male who comes to Badi women as customer at night, talks to Old Badeni. Old Badeni accepts naturally that her daughter- in-law and grand-daughter are her decedents. They honor family tradition. They are follower of the tradition. She likes to continue the tradition of prostitution. Social cognition is clear both for the male and the grand- mother Badeni. So, the customer questions as if he is well acquainted with this tradition. Badeni belongs to lower caste and the discourse has been created against them as the lower caste people are supposed to serve the upper caste people in society. Sudras' occupation is "only humble service to the three higher castes" (Woodbourne, 1922, p.529). Being a downtrodden woman, she has internalized the discourse as created and controlled by patriarchy. In this way, prostitution as practice has been legitimized. As a result, dominant group does not show any resistance.

Although resistance for the domination is essential, after legitimization, hegemonic discourse controls people's mind in such a way that they enjoy even with inhuman activity of prostitution. For instance, in the sentence, the old Badeni expresses her happiness when the males arrive at late night while they are waiting, "I didn't tell you to wait for nothing! She gets excited" (Sapkota 2001, p.218). This sign of explanation shows that she becomes emotionally happy when the males arrive. She also tries to rationalize her purpose to make other Badenis wait. This emotional feeling is evidence of her neutralization and naturalization to accept this tradition as source of income. However, she does not think of other Badi women's problem.

Although the writer raises the issue and voice of the dominated Badi women through this story, being part of the similar socio-cultural context, he represents those oppressed people negatively. This is negative representation of others. The writer only addresses them as Badeni. He does not give them their name. Negative representation is observed when the narrator begins the story from "they". This third person pronoun stands for othering. Although the narrator can use such words, the narrator presents grandmother Badeni as active speaker. The writer also represents them as begging women as they beg cigarettes from their clients, "Give me cigarette, says the Old Badeni" (p. 219). She is presented as if she is born to beg and she does not hesitate to beg. This imperative sentence indicates that she flirts and begs with anyone.

Similarly, the writer negatively represents Badi women as all female family members involving in this tradition. Moreover, they are represented in such a way that the women are involving in prostitution whereas their husbands are not at home but they are somewhere moving just by drinking alcohol:

"And where are their fathers?" asks the youth, seeing no man in the house at such an hour of the night.

"They have gone drinking in the village". The old woman answers curtly.

"All of them went drinking? asks the youth acting surprised". (p. 220)

The writer, further, negatively represents the male members as careless, who do not oppose their wives', mothers' and daughters' involvement in prostitution. They are also neutralized and naturalized being untouchables. As Sudras are supposed to serve the upper caste people, they have also accepted the socio-cultural context in which they live. In the same way, the use of word "curtly" indicates that the Badi women are not civilized enough to use positive words. They have no manner to speak.

In the same way, negative representation is also observed through the lexical style. The writer deliberately uses the words like "they", and "she" numerous times as the third person narrator is presented. The word "cigarette", which grandmother Badeni demands from the males who come at night and the words "drinking" repeatedly indicate that hegemonic discourse created against the "Sudras" is that they dirty and uncivilized. They eat whatever they like. The repetition of the word "bed" has negative connotation that is sexual. The writer use word "Badeni" many times which is the indication of discrimination against these downtrodden women. The writer uses the words "Grandmother badeni" and "Granddaughter badeni" repeatedly, instead of giving them any proper noun. They have identity crisis. Their positioning is meaningless. So, the writer uses small letter in word "badeni" although it should be capital conventionally.

Along with the lexical style, Critical Discourse Analysis of hyperbolic expression is also significant. The writer, being a member of dominated group, makes mockery of the situation through exaggeration. The writer exaggerates certain events and repeats in the form of words. This hyperbolic expression for the 'scream' is presented:

A moment later they hear a scream. A scream full of pain. The scream descends to the place where they are sitting. It doesn't stay long. It exits the house. It scatters into the sky, where it turns into thunder and lightning. It's moving back and forth, looking for a place to strike. It resounds throughout the landscape and strikes the most important building. (P. 222)

Although this is climax of the story and it is matter of plight for whole humanity, this extract indicates that hegemonic discourse has controlled the mind of women to be used as part of barter (Brownmiller, 1975). To get money, old Badeni is forcing her to involve in prostitution. They are naturalized and neutralized even to accept the situation of rape. However, this description of the event is not plausible. The writer uses hyperbolic expressions like "thunder", "lightening" and "scatters into sky" ruin the natural plight for the girl. The males and upper caste people "dehumanize" (Freire, 2005) the untouchables and the women. In the same way, being a male and upper-caste member of this society, the writer cannot understand the pain of the girl. This situation is exactly the situation of rape. Therefore, through the use of hyperbolic expression, the writer has made the mockery of the situation.

Finally, topic choice, like other aspects, is reflection of hegemonic discourse. The Topic of this story is "The Scream". This scream is not any other than the sound of suppression of the male over a child girl at the time of intercourse. To show domination of males over females, the writer has chosen the topic. Scream is the sound that is used to express extreme physical pain. The granddaughter Badeni is abused through patriarchal power. Even her grandmother is "Patriarchal women". She has internalized the hegemonic discourse and she has become neutralized and naturalized. Although at the time of her grand-daughter's scream, Old Badeni scolds the male, it is not resistance. Being helpless, the grand-daughter screams. Old Badeni, who has internalized the norms of caste and patriarchy, compels her to accept such rape situation. The male, who comes as customer, does not understand her reluctance and exploit her. The writer's purpose to this topic is to highlight the issue of domination, discrimination, and inequality.

In this way, various aspects like topic, hyperbolic expression, and expressions of the major characters and the context of the story are critically analyzed through the lenses of hegemony, mind control and negative representation. Basically, dominant group has neutralized and naturalized Badi male and female through hegemonic discourse. Since, they have accepted the discourse uncritically; they are involving in such evil tradition of prostitution in their own consent.

Conclusion

Hence, the role of hegemony in society is to dominate socio-culturally disadvantaged people. Through powerful ideologies like patriarchy and caste system, elites discriminate and dominate women and downtrodden people. They are dehumanized, neutralized, and naturalized by disseminating hegemonic power created through hegemonic discourse. Socio-culturally disadvantaged people observe such discourse uncritically and takes it for granted. As a result, they legitimize the discourse in their text and talk. However, the elites reproduce the dominance in consent. If the discourse has been internalized, people practice even social evils as natural occupation. Their frame of mental representation is constructed thorough the discourse in society. In their speech and writing such cognition is expressed.

For instance, after Critical Discourse Analysis of the story "The Scream" by Nepali writer Dhrub Sapkota, it is observed that marginal and downtrodden Badi women are dominated in their own consent. They are naturalized and neutralized socio-culturally. Patriarchy and caste are the two important ideologies to neutralize their mind and to naturalize them to legitimize the prostitution as tradition. Uneducated, poor and untouchable women are unable to show any kind of resistance. In contrary, they have been practicing the social evil, prostitution, for generation to generation. Three generations of Badi women involve in such evil work. Males as customer exploit and abuse them physically. In this way, hegemonic discourse neutralizes and naturalizes marginal people socio-culturally.

References

- Brownmiller, S. (1975). Against our will: Men, women and rape. Fawcett Columbine.
- Chouliaraki, L. & Fairclough, N. (1999). Discourse in late modernity: Rethinking critical discourse analysis. EUP.
- Constitution of Nepal (2015). https://www.refworld.org/docid/561625364html

Cook, G. (1990). Discourse. Oxford University Press.

Cox, M. (2012). Badi community of Nepal. Field Bulletien, 50. RCHC Nepal.

Fairclough, N. (1985). Critical and discriptive goals in discourse analysis. Journal of Pragmatics, 9. 739-63.

- Freire, P. (2005). Pedagogy of the oppressed. Routledge.
- Gramsci, A. (1971). Selections from the prison notebooks of Antonio Gramsci. Translated by Q. Hoare & G. N. Smith. International Publishers.
- Hunt, M. E. (2012). Gender and sexuality in the context of religion and social justice. In M. D. Palmer & S. M. Burgess (Eds.) *The Wiley-Blackwell Companion to Religion and Social Justice* (pp. 535-546). Blackwell Publishing Limited.
- Macdonell, A. A. (1914). The early of caste. The American Historical Review. 19(2). 230-244.
- Nigam, A. (2019). Hindutva, caste and the national unconscious. In V. Satgar (Ed.). Racism after apartheid: challenges for Marxism and anti-racism (pp. 118- 136). Wits University Press.
- Sapkota, D. (2016). The scream. In House of snow: An anthology of the greatest writing about Nepal. Head of Zeus Ltd.
- Stodart, M. C. J. (2009). Ideology, hegemony, discourse: A critical review of theories of knowledge and power. Social Thought and Research, 28, 191-225.

Thapa, M. (2001). Reaching one's own people, reaching the world. Manoa, 67-73.

Van Dijk, T.A. (1993). Discourse and society. Sage.

- Van Dijk, T. A. (1993). Principles of critical discourse analysis. Discourse & society, 4 (2), 249-283.
- Van Dijk, T. A. (2005). Critical discourse analysis. The handbook of discourse analysis. Routledge.

Widdowson, H. G. (1995). Discourse analysis: a critical view. Language and Literature, 4 (3). 157-172.

Wodak, R., & Meyer, M. (Eds.). (2015). Methods of critical discourse studies. Sage.

Woodburne, A. S. (1922). Can India's caste system survive in modern life? The Journal of Religion, 2 (5). 525-37.

Exploring Students' Anxiety with Speaking and Writing in English Language Classrooms

Puspa Raj Pandey Lecturer Aishwarya Multiple Campus Dhangadhi, Kailali Email:puspapaseli@gmail.com

Article History : Received Date : 2079/05/20; Accepted Date : 2079/08/10

Abstract

The aim of the study is to identify and examine the students' anxiety problem with reading and writing in English language classrooms in BBS First year of a campus in Dhangadhi, Nepal. The campus has experienced that the students can neither speak nor write effectively. The participating teachers and students imagined identifying the problems and overcoming the language anxiety as one solution to address the problems, focus group interview as a qualitative research method is applied as a theoretical and analytical framework to answer the question 'What strategies or techniques can overcome the anxiety of speaking and writing effectively that exist among the students in English language classrooms? The data consists of personal interviews and group discussions with the teachers and the students and questionnaires collected in July 2022 by using the stratified random sampling. The research discovers the problems created by English language anxiety, its reasons and solutions to overcome it so that it can bring changes for better performances.

Key Words: qualitative and interpretive paradigm; English language anxiety; participation; focus group discussion; stratified random sampling

Introduction

This paper has a qualitative and interpretive paradigm. John W. Creswell and J. David Creswell (2013) states "In qualitative research, we identify our participants and cites on purposeful sampling, based on places and people that can best help us understand our central phenomenon" (p. 205). In this paper participants and places are selected with a purposeful sampling. Similarly, Linda L. Putnam and Scott Banghart state, "Interpretive approaches share a focus on two different features: meanings and interpretation" (p.2). In other words, researchers and participants work together to address the problems and initiate actions for a change in society.

This paper focuses on the English learners' language anxiety, which is one of the major reasons the students cannot write and speak effectively in English language classrooms. Masoud Hashemi in his article entitled " Language, stress and anxiety among the English language learners' ' opines that " Worldwide expansion of English language has increased the demand to acquire good communication skills in English" (Hashemi 2011: p. 1812). As a result, the number of English language learners is increasing worldwide. Along with the increasing number worldwide, English language learners' anxiety level is also a pressing issue. The students face the problem of anxiety and difficulties in speaking and writing in English.

This paper presents a study where three college teachers and 30 students from three classes of BBS First Year of the academic year 2022/23 participated in Dhangadhi, Nepal to explore the issues that the students have been facing regarding speaking and writing in English Language classes. It has focused on exploring issues and solving problems related to speaking and writing activities in English language classrooms. This is a pressing issue related to speaking and writing effectively prevalent in English Language classrooms, especially the students who are from government schools. There are several reasons which students go through during the learning process. The teachers

are always worried about not being able to overcome the problems which appear in their English language classes. At the same time, students were worried about how to improve their efficiency in speaking, and writing. The participants' views were taken as the subject of analysis, and the first step of the research was to collect why students face such problems. Thus, in this paper, the researcher will explore that though both the teachers and the students have used so many methods, they still have problems with speaking and writing in English classrooms due to English language anxiety. the problem of anxiety and feel difficulties in speaking and writing in English.

Literature Review

There has been a lot of research in the field of English language anxiety among non English Students especially in speaking and writing. The researchers are still investigating every aspect of anxiety regarding English language anxiety. The researchers' main focus is to devise some ways of minimizing the level of anxiety among English language learners as well as the students. English language anxiety is a common problem of English language classrooms and it hinders the students both in speaking and writing effectively. Though the some findings from the researches are helpful in overcoming the issues related to English language anxiety, the learners still have to pass through this problem." Anxiety is a psychological construct, commonly described by psychologists as a state of apprehension, a vague fear that is only indirectly associated with an object" (Hilgart, Atkinson, and Atkinson, 1971, cited in Hashemi, 2011: p.1812). Anxiety related to second language learning is a psychological construct or it is a man-made discourse which creates a fear in the learners. It usually hampers them from writing and speaking, and they can not express themselves in English even after acquiring the knowledge of the particular language, mainly English language.

Anxiety with Speaking, One of the pressing issues of non-English speaking students is speaking in English. They seem hesitant while communicating orally in the course of their academic activities in English, this hesitation comes from the feeling of anxiety. Lindy Widrow in the article entitled "Anxiety and Speaking English as a Second Language" states that, "Anxiety experienced in communication in English can be debilitating and can influence students' adaptation to the target environment and ultimately the achievement of their educational goal" (p. 309). Despite the efforts of addressing the fear of the learners, there is still a need of finding the ways to avoid anxiety. The English language learners suffer from unknown fear not only in the early stage of learning but also after getting the language competency.

Anxiety with writing, After anxiety with speaking in English language classrooms for second language learners, writing anxiety is also a common trait among them. Although much research is based on anxiety related to speaking, writing anxiety is also a pertinent issue for the English language classrooms. Sujeong Choi in his article, "Language in Second Language Writing: Is It Really a Stumbling Block?" claims that "Students who say they suffer from high anxiety in general in the EFL classrooms are expected to also suffer from high anxiety about L2 writing" (Choi, p. 55). It shows that anxiety in writing also exists among the students of English language learners. Due to the anxiety in writing, students feel uneasy about expressing themselves through writing effectively.

Research questions:

- 1. Why do the students feel hesitant when speaking in English?
- 2. What are the students' problems in writing in English?
- 3. How can we overcome English language anxiety in English language classrooms?

Objective of the study

The objective of this research paper is to address the issues of anxiety among the English language learners as their second language especially in schools and colleges in Nepal. Despite the continuous efforts from the students and teachers, English language anxiety is still prevalent among learners. Due to the presence of anxiety in learners` minds, they have to struggle a lot in the course of learning English. Even after learning the English language for years, English language learners feel discomfort both in speaking and writing activities. The main purpose of this study is to find out some reasons behind English language anxiety and to address the problems so that the level of anxiety can be lessened through qualitative interpretive research.

Method

A focus group interview as a qualitative research method is used in this paper. N S Bojlen and I M. Lunde (1995) say that "Focus group interview method is feasible in illuminating the variation of viewpoints held in a population" (p. 1335). A group interview of several respondents was conducted at a time and it took one and half an hour. The number of the teacher and student participants was 9 altogether. The respondents were pre-selected through the use of a screening questionnaire. Four interviews were conducted to draw some conclusions. Whatever method we choose, we need to be careful about listening to the participants so that we can give a direction to the study. Methods like group discussion, personal interviews are performed and both qualitative and quantitative data are collected from the participants.

Participants sampling

The stratified random sampling method is used to select the participants for the research. For this, the total population of the students was divided into ' sub-population' or strata based on common characteristics such as gender and schooling backgrounds. The proportionate stratified sampling is used for the selection of the participants. There only three teachers were available and they were all selected. The student participants were selected as in the following table:

Students' Group	Number in group	Proportionate sampling
Males	21	7
Females	21	7
Government school background	24	8
Private school background	24	8
Total	90	30

Table: 1 The stratified random sampling method for participants selection

Source: Observation

Participants in the study

The participants were three college English teachers teaching in the same college in Dhangadhi, Nepal. They all teach Business Communication at the bachelor level first year. The student participants were 30 altogether, 10 from

each class studying at the same campus. The student participants were taken into consideration different gender, and school backgrounds.

The group was formed on the basis of gender and 7 out of 21 female students and 7 out of 21 males were selected. Among them 24 students were of government school background and 24 of them belonged to private school background. 8 students from government background and 8 from private school background students were selected. The study aimed to explore the experiences of the teachers from their perspective. The focus was on both the teachers and the students and it was also felt that they would be able to provide an overview of the situation from their lived experiences. It was also considered that three teachers and thirty students would be sufficient for the small-scale nature of the research.

To select the participants, the forms were distributed to fill up, which included all the details of the students and selected to make it inclusive based on their first language, ethnic group and school education backgrounds. While a large number of forms were collected, a few were selected as the active participants. Having successfully contacted the participants and collected the data from different perspectives.

Data collection procedure, Semi-structured interviews were conducted in English with all the participants, including both the teachers and the students, between 10 and 15 minutes. An open-ended questions were asked to the participants separately and interviews were conducted in a face-to- face mode. Three of the teachers were interviewed two times at the interval of one week and they were asked about their experiences related to anxiety among the students in speaking and writing in English language classrooms. The teachers were encouraged to speak freely, assured them that they were the major part of the research study.

The teachers are called by the pseudonyms Nabin, Lokendra and Jitendra. They knew one another and collaborated before the study, for example, regarding the objective of the study, and issues related to English language classrooms. Nabin has worked for 13 years as an English language teacher at different levels from primary to college levels. He uses different books, google and other social media for his teaching materials. He was keen to cope with the problems which the students are facing.

Lokendra has worked as an English teacher and uses student-centered methods to address the prevalent challenges. The number of students has not been able to secure expected marks in English subject.

Similarly, Jitendra has worked as an English teacher for 20 years at the college level. He has taught English grammar, composition, and literature to diverse kinds of students from rural areas to urban areas. Like other teachers, he has also been struggling to make the students' position better in speaking and writing. The students studying at BBS Second Year from three different classes, 10 participants participated in the study. They found themselves anxious regarding speaking and writing issues. All the teachers and students seemed worried about the challenges they had been facing. They implemented some strategies regarding the problems they were having, but they were found anxious and concerned about the situation.

The data collection consisted of personal interviews with the teachers, questionnaires and group discussions, during the research study. In this paper, the interviews, group discussions, and questionnaires have been analyzed. The data collection methods are presented below to describe the context and challenges of the study.

During the group discussion, different questions concerning the study were discussed. During the first group discussion in July 2022, all the concerns of the study were clarified. When I presented the aim of the research, the participants got the idea that I was not there to criticize their practice but to understand it from their point of view. At the end of the study, we discussed the implications of the research, my analysis and comments on it from the teachers in August 2022.

Data analysis, The data were analyzed thematically to find out the problems related to difficulties that students have speaking and writing in English language classrooms. There are various reasons behind the anxiety. The responses and experiences expressed by the teachers were analyzed first. Two of the three teachers focused on the problem of English language anxiety among the students. English language anxiety hinders the students from speaking and writing confidently. Regular practice may be helpful to overcome the anxiety. A teacher responded that the lack of effectiveness in speaking and writing in English is the unwillingness to work hard and carelessness. If the students are encouraged to speak and write in English frequently, speaking and writing in English can make the English language anxiety manageable.

Group discussion analysis was one of the major procedures of the research study. The views and the experiences of the teacher participants categorized under some major sub-headings and analyzed. The several issues related to anxiety in English language classrooms were dictated and analyzed from different angles.

Then the responses from the students were divided into different categories under English language anxiety and analysis. The English language anxiety in speaking and in writing separately so that both kinds of anxieties can be analyzed systematically. The responses from the teachers and the students were compared and contrasted. Similar responses were analyzed to observe to what extent their views are common. After analyzing the similar responses, it was analyzed how the teachers' responses are different from the student participants.

Again, the quantitative questionnaires from both the teacher and students participants were divided into numbers and converted into percentages. The questionnaires included the issues like the problems, reasons and solutions. The problems created by English language anxiety in the students' performances in speaking and writing in English. Several reasons behind English language anxiety were found among the students. From the questionnaires, some practical solutions were obtained.

Findings

Research findings show that teachers should seek more effective ways to ease the anxiety that students feel when speaking and writing in English so as to support effective language learning experiences.

Problems with speaking

The participants responded with their experiences regarding the anxiety of speaking in English language classrooms. Despite the efforts made to minimize the level of anxiety among the learners, the need for improvement is felt. The teacher participants accepted that having used some methodologies for teaching, they were still struggling to make the situation easier in the English language classrooms.

The student participants expressed that they feel difficulties when they speak. They feel that English is difficult to speak and it is more difficult to speak correctly. They think that they do not possess enough vocabulary to express themselves through oral communication in English. Some students responded that they feel easier to communicate with their teachers and their classmates, but they feel difficulties when they have to speak with strangers.

The reasons why they feel anxious to speak English are also found from the teacher and students participants. One of the reasons is that they have a fear of making any errors during the oral communication. In case they happen to commit any mistakes regarding pronunciation or grammar or word selection, they always have a fear that they can be criticized by the listeners.

Moreover, they have psychological problems that they think are still weak in English. Because of the social mindset that English is a difficult language, the students have problems to get rid of the anxiety.

Problem with writing

The participating teachers and students expressed that they have anxiety not only in speaking but also in writing. The teacher participants shared their experiences related to the anxiety students feel anxious in writing. They feel hesitation in showing their writing assignments even to their tutors. When the students are told to write on something, they remain stuck for a while then only they start writing.

The students think they fear that they can not write properly. While writing, they have problems selecting proper words. There is a reason that the sentence structure of their first language is quite different from the English language. They also claim that when they share their writing with their colleagues, they have a fear that they can make fun of the errors.

Solutions

From the group discussions, personal interviews and questionnaires, some solutions of the anxiety are also discovered. Some strategies that can be applied to minimize the level of anxiety of the students are:

- i. Applying the student-centered teaching method: The students be given opportunities to express in English, both oral and written forms.
- ii. The students should be made free from exam-oriented learning.
- iii. The practical teaching and learning activities should be applied rather than the theoretical ones.
- iv. Creating an English environment.
- v. The students should be treated psychologically assuring them that English is like other languages and it can be spoken or written easily through regular practice.

Discussion

Since it is a focus-group discussion, the following guidelines are acknowledged in the discussion:

- i- Defining a focus group: A focus group is a small group of six to ten people.
- ii- Designing focus group questions: The number of questions should be eight to twelve.
- iii- Recruiting and preparing for participants: All the participants are very comfortable but none of them know each other.
- iv- Conducting the focus group: The focus group is conducted by a team consisting of a moderator and an assistant moderator.
- v- Analyzing the data: A systematic and verifiable process should be used for analyzing the data.

We need to change our present mindset to overcome the anxiety about English. (Sandhya, personal interview)

The quote from the student participant called Sandhya in this study, and is how she ended her response during her personal interview. The quote shows the anxiety level is deep and there is a need for effective efforts to address the problem. There was a strong enthusiasm among the teachers and the students to deal with the anxiety that hinders all of them. They all were aware of the future challenges and how to cope with them. The initiatives equally came from both the teacher and student participants.

The level of anxiety differs from place to place as Jitendra, one of the teacher participants in the study, shared this fact that the level of anxiety in Dhangadhi among the students is quite different from other places. He spent some years in Mumbai in India as a student and found this difference. It can be minimized in cities like Dhangadhi if we can create an English environment. English is one of the compulsory subjects in most of the schools and colleges in Nepal. Many students are interested in learning it because of various reasons. The opportunities for good jobs and study abroad are some reasons which attract learners to the English language. N. Prabhu (1987) in his article entitled "Exploiting literature in project/task-based learning" says that "Students are just as likely to learn a language if they are thinking about non-linguistic problems as when concentrating on particular language forms" (p. 25). This may be one of the pertinent factors that creates anxiety in the learners.

Conclusion

The aim of this study was to identify and examine the level of English language anxiety, especially in speaking and in writing in English language classrooms at a campus in Dhangadhi, Nepal. It is a challenging matter both for the teachers and the students. Even after the efforts made by the teachers, the outcome was the opposite of their desired goal. The teachers and the students have been facing these kinds of problems, but there were less discussions related to the issue of anxiety. The participatory action research study helps them to discover the problems, reasons and solutions to the anxiety that the students have been facing for years. The outcome of the study will help to cope with the problems of English language anxiety in a specific context.

References

- Choi, S. Language in Second Language Writing: Is It Really a Stumbling Block? *English Writing Performance*. University of Hawaii at Manoa.
- Creswell, J. W. and Cresswell, J. D. (2013). *Research Design: Qualitative, Quantitative and Mixed Approach*. Carnegie Mellon University, USA.
- Hashemi, M. (2011). Language Stress and Anxiety among the English Language Learners. Procedia Social and Behavioral Sciences, 1811-1816.
- Prabhu, N. (1987). Exploiting Literature in Project/Task-Based Learning. TEAL Services. Banglore, India.
- Putnam, L. L. and Banghart, S. Interpretive Approaches. University of California, USA.
- Bojlen, N. S. and Lunde I. M. (1995). Focus group interview as a qualitative research method. *National Library of Medicine*, 157 (23), 3315-8.
- Woodrow, L. (2006). Anxiety and Speaking English as a Second Language. December 1.

Existential Angst and Identity Rethink in Kandel's Dhritarastra

Om Prakash Pandey

Lecturer Aishwarya Multiple Campus, Dhangadhi Email : pandey66.op@gmail.com

Article History : Received Date : 2079/05/20; Accepted Date : 2079/08/10

Abstract

This research article explores *Ghanshyam Kadel's khandakavya* (semi-epic) '*Dhritarastra*' that unveils the monologues of one of the main characters, *Dhritarashtra*, of the legendary epic *Mahabharata*. *Dhritarashtra* was the existing ruler of *Hasthinapur* during the devastating battle of *Mahabharata*. The one who has been portrayed as an antagonistic character yet for not stopping the war, is portrayed as the protagonist character by *Kandel* in his khandakavsya. The poet not only makes him to narrate his own story but also portrays him as the tragic hero, who had to encounter multiple misfortunes throughout his life. *Dhritarashtra* was the same person who was disqualified to be the de facto in the beginning when there was his natural turn; afterwards, he was found apposite when there were no alternatives to him. He was appointed as the care taker ruler. Drinking the bitterness of the discriminations and hatred whole life, he doesn't want such misfortunes repeat to his son '*Duryodhana*'. That is why he accepts war as the decision maker. He expects that war will cleanse the scars of the oppression done to him. The narrator of the khandakavya justifies his decisions and his role in the epic and advocates in favor of his character in monologues.

Key Words: Khandakavya, battle, protagonist, devastation, reminiscences, disabled, caretaker

Introduction

The purpose of this article is to explore the existential angst of the protagonist *Dhritarashtra* which he experiences after losing his right to be the King of Hasthinapur due to his blindness from birth. *Angst* is a German word that refers to a cross between 'anxiety' and 'fear' on the lap of existential insecurity; it seems far more basic emotion than fear (Wierzbicka,1998). In this sense, existential angst refers to the state of having anxiety amid the loss of self or identity. The narrator is strongly worried and nervous because he finds his self has been abducted; he has been looking for the true meaning of his life.

Dhritarashtra was the rightful heir of the kingdom of Hasthinapur as the eldest son of the family. According to law of the state, he ought to be declared the king automatically after the demise of the existing king (his legal father) but he was deprived of his rights. His deprivation as the heir of the kingdom of Hasthinapur in the name of his physical inability caused by blindness by birth, proves himself one of the most oppressed characters of the epic rather than the oppressor. Despite all the prejudices, destiny made him the caretaker king throughout his life after the untimely demise of his younger brother 'Pandu'. Being a sufferer of discriminations, the narrator doesn't want these misfortunes to repeat with his son, so he allowed the historic battle happen between his sons, Kauravas and Pandu's sons Pandavas for the decision of the real heir of the state. Amongst all the characters of Mahabharat, Dhritarashtra, is believed to have suffered the most; he has been in the trauma from the very beginning imagining the great bloodshed in the war that turned into reality (Jena & Samantray, 2021). As every war ends at destruction, the war of Mahabharat also caused demise of all the sons of the narrator. The narrator was alienated after the war that he had always been scared with (Jena & Samantray, 2021). Subsequently, he reassesses his past in the monologues.

Objective

This article analyses the following objectives to answer the research question:

- to discuss how the feelings of being oppressed gives birth to revengefulness in Dhritarashtra employing certain narrative tools and strategies
- to explore how the fear of losing one's identity forces him/her to struggle to regain identity.

Methodology

I will follow a close reading and in-depth qualitative analysis of the Khandakavya "Dhritarashtra", in order to discuss existential angst and Identity rethink of the character Dhritarashtra. Moreover, this article takes Paulo Freire's "Pedagogy of the Oppressed" as a lens to analyze the narrator's identity search as the most oppressed character of the great epic "The Mahabharata". The analysis and interpretation and conclusion of the study will be modelled on narrative features drawn from the narrative theory.

Analysis and Interpretation

Kandel's khandakavya '*Dhritarashtra*' craftily dramatizes the anxieties and sufferings of the protagonist character and narrator '*Dhritarastra*' at the domain of his disability (blindness). After the devastation caused by the war of Mahabharat, he finds himself in alienation and blamed for not stopping the war. Then, he recollects his memories and reevaluates his role in the collage of reminiscences so that he could justify himself.

The first chapter of the monologue begins with *Andhatwa Chet* (Sense of Blindness). The narrator recalls his reminiscences of his beautiful childhood when he was unknown about his disability to see. He thought he was also similar to other children. When he came to know that he was unable to observe the beautiful world, he was quite regretful. His confrontation with the reality was painful and full of complaints.

Thaha paye aru batai drishtihin rahechhu ma Darshaniya chha yo Srishti ma bhane dekhna saktin (8)

The narrator misses the opportunity to see the beautiful world, moreover he feels regretful being known about his blindness from others. His agony of blindness is similar to the pain expressed by John Milton in the poem 'On his Blindness'. The poet expresses his dissatisfaction with the maker for making his talents useless. When the poet realizes that his ability to see is destroyed, the entire world is dark and desolate for him.

When I consider how my light is spent Ere half my days in this dark world and wide And that one talent, which death to hide, Lodged with me useless though my soul more bent. (Milton, 1673)

The narrator knows that the world is full of various kinds of disabilities; some are physically crippled; others are mentally. Besides all these disabilities, people are struggling to live. He feels that he had been dehumanized for his physical disabilities by the oppressors and opt for humanization (Freire, 2005). He accepts the realities of life and determines to compromise with the ups and downs of life. Instead of escaping the hardships, he promises to fight with them.

The second chapter of the monologue, *Samvedana haru prati* (Vis-à-vis Sympathies), is dedicated to the insensitive people around, who are very cruel to meek feelings of disables. He rejects the claims of people that he became blind due to his mother's fault. His widowed mother closed her eyes during the conjugation period. She was forced to

accept *Niyoga* system in which a woman is forced to bear a baby from other males after the death of her own husband. The narrator finds it an extremity of cruelty of the male dominated society and finds his mother innocent and guiltless.

Bhanechhan tyasari aakha chimli bhul garin bhani. Thaniichhan tyasaile nai doshi dosh bina pani. (6)

The speaker feels that his mother was also victim of the existing evil systems and trends of the society as he is. In fact, she was not in the role of taking decision what is good and what is bad for her because she had already been smashed by the pain of widowhood. Describing the roles of oppressors and oppressed ones in the society, Freire (2005) opines "The oppressors, who oppress, exploit and rape by virtue of their power cannot find in this power the strength to liberate either to oppressed or themselves... the oppressed have been destroyed precisely because their situation has reduced them to things." The oppressors not only exploit the powerless people in the society but also dehumanize them; they treat them as inanimate objects. The narrator thinks that his mother had also suffered from the same destiny as him. The powerful oppressors of the state had forced a helpless widow (his mother) to sleep with a stranger in the beginning and accused her for closing her eyes during the conjugation period when she gave birth to blind child. In fact it was not due to her destiny; it was the result of oppressors' unjust orders and an act dehumanizing her (Freire, 2005).

The speaker believes that disables are actually differently abled. In various aspects they can perform better than the normal people. People with disabilities may be equipped with some special qualities so, sometimes they can cross the limits of surprise by their performance.

> Apang haruma hunchhan aafnai bisishtata pani Naghna sakchhan kunai bela sima aascharya ka pani. (28)

After being suffered a lot the oppressed ones yearn for their liberation and justice; they believe that they could regain their lost humanity and justice with their self-efforts and power (Freire, 2005). The narrator knows that the people around him think that being blind he can't perform the crucial responsibilities of the king properly but inwardly he is quite confident that he could accomplish his all duties as well as non-blinds. Moreover, he had started to think about the policies he would implement after he became the king.

The third chapter, *Satta Swopna* (Dreams of Reign), explores the hidden desires of the narrator. Like other people, the narrator also had a dream; his dream was to be the king of Hasthinapur, and according to the law of the state, his dream was very rightful and logical.

Hasthinapur ko Raja, lagthyo bannexu mai ab Paune xu ma tyo bela, sansar ka khusi sab (3)

He had not only dreamed for but also made plans to run the state very effectively. He thought that he would run the administrative works of a king as effectively as others do. He would follow the bylaws of the state duly, and he would take hard or soft decision according to the situation.

Sthiti herer bannechhu, ma kathor ra komal Mero shasan ko shakti, hune chh nyaya kewal (15)

Krishnamurti (2010) says that the basic and everlasting interest in people's life is 'me-first':

"You may say that it is more satisfactory to help another than to think about yourself what is the difference? It is still self-concern. If it gives you greater satisfaction to help others, you are concerned about what will give you greater satisfaction...... satisfaction in all sorts of way subtle and obvious, is what we want. When we say we want freedom, we want it because we think it may be wonderfully satisfying, and the ultimate satisfaction, of course, is this peculiar idea of self-realization. What we are really seeking is a satisfaction in which there is no dissatisfaction at all." Someone, who enjoys freedom, is the most satisfied one. Satisfaction is the real cause of happiness. A happy and contended person is hardly bias to anyone, and takes better decisions. Although in thoughts, the narrator was also quite excited to enjoy his rights.

The narrator was quite hopeful that he would be the next king. But he was broke when his dreams were shattered by the decision made by states man. The fourth chapter *Swopna Bhang* (Breaking of Dream) is on reactions of the narrator after his dream-break.

Phute bishwas pani ka, phoka jhai tar tyo kshan Drishti hin bhayekale, Thaniye jab aksham (18)

The narrator was disqualified to reign due to his blindness. The committee members whom the narrator believed to be wise and just became unjust. They decided to make his younger brother Pandu the next king of the state breaking the rule. When one is oppressed a lot, he becomes revolutionary. He revolts to take revenge with the existing unfair systems. He wants to break all the boundaries which do not allow him to enjoy freedom. Freire (2005) further adds being battered by the extremes of the oppressors the oppressed ones lose their quality of being human; dehumanization deeply enroots revengefulness in them which disables their consciousness and they remain merely an object. Krishnamurti (2010) believes that the man is always inspired and directed by self-interest. The actions what he does either for himself or for others are always driven by the driver called self-realization. When the dreams are broken, they become more painful.

Banyo ghor nirasha ko ab jangal yo mana Thale sarp anastha ka tyahi nai salbalaun. (24)

Dhritarashtra was quite disappointed and angry to all of them who were responsible for boycotting him from his rights. In fact, he had a strong belief on the wisdom of his step brother Bidur. Similarly, he was very hopeful to his grandfather Bhishma, who had sacrificed his role to be the king for his promises, would never be so mean. Likewise, he had never thought that the wise courtiers of Hastinapur would be so unjust and vindictive towards him. He was not only disrespectful to them but also revengeful.

The person who was rejected to be the king for his blindness; destiny forced him to be the king. After the untimely demise of his brother Pandu (existing king), the courtiers decided to make Dhritarashtra king of the state because they had no alternatives of him. The fifth chapter *Apratyashit Rajya Prapti* (Unexpected Acquisition of Kingdom) explores upon his reactions after he attained the kingdom. Unexpectedly, the responsibility of the king encroached him. The unwanted achievement didn't satisfy him, neither it could wash away the woes of discrimination because he was nominated as the care taker king only.

Adhikar thiyo mero, tyo bela tara paiin Na chahe pani yo bela, nabani sukh pain. (2)

The narrator doesn't want his son Duryodhana to face the pains like him. He wishes him to be smarter and more courageous so that nobody could dare to deprive him from his rights. He wants his dreams be fulfilled through his son. His revengefulness didn't let him to stop the war. He let Mahabharat happen because he expected his son to acquire the state by his own valor.

The fifth chapter is *Yuddha ko Trashadi Pachhi* (After the Dreadful War). Ultimately, the disastrous war happened and Dhritarashtra's all sons were killed in the war. His all the dreams were shattered along with the demise of Duryodhana (his son). However, he consoled himself saying that the sacrifice of Duryodhana was the sacrifice for his liberation. He fought against the injustices happened to his father which were sure to repeat to him, but was unsuccessful. By the way he finds Krishna guilty for causing the war. Krishna, who is claimed to be the hero of the era, was, in fact, the villain behind the devastation of the war. The evil plans and conspiracy of him were the real cause of the death of many braves of Kuru dynasty. He wondered why Krishna wanted the destruction; perhaps he was envious of the glory of Kuru dynasty.

Janda jandai garaye hun Krishna le kin yo sab Ti bhitra ki thiyo daha dekhta Kaurav Gaurav? (34)

The narrator takes Krishna, as the subtle villain, behind the great massacre of Kauravas. The subtle villains are those characters who were very intelligent, highly shrewd and exceedingly cunning who was fully prepared appropriate strategies to achieve the pre-determined goals (Kavitha, 2016). He thinks that Krishna was equipped with full proved plans to destroy the glorious history of Kuru dynasty because he was jealous to it. Otherwise there were no valid reasons behind his involvement in the war.

Last but not least, the monologue ends with *Samahaar* (Conclusion). After the horrific war, the narrator concludes that war is always destructive; it doesn't count what was the intention behind the war. The one who is most affected in the war is the man himself. In other words, man invites the war for self-destruction. Although man knows this dark side of the war, he can't avoid war because he becomes sense less in the excitement of the war. The similar mishap happened to the narrator. The narrator couldn't see the future, the war would bring. However, he doesn't think he was only responsible for the war of Maahabharat. The people around him were also equally or perhaps more responsible for it. When his rights were assassinated, he found no other options besides war. He thought war would heal the pains of injustices done to him.

Ma hu aakhir manchhe nai, jasle je bhane pani Atyachar huda hunxa, pir pida ma ma pani (25)

Despite his blindness, the narrator is also a human being; he could also feel the pain of suppression and oppression done to him. The one who is subjugated the most only knows the real sense of freedom. He knows the importance of freedom and uses it to explore what he wishes to do or get: "There can be no simple answer to what man should do with his freedom. In one sense, he must create the answer by using his freedom to find out just what he wants to become" (Roberto 68). In the quest of freedom from woes of the past insults, the narrator took the hazardous decision.

Conclusion

The excessive feelings of anxiety and existential loss gives birth to revenge in the narrator. It does not mean that he was unaware of the forthcoming disaster; however the extreme desire for obtaining freedom from the oppression done to him tends himself to become oppressor (Freire, 2005). He assumes that freedom is acquired by conquest, not by gift as Freire (2005) opines in "The Pedagogy of Oppressed". Although, the extremity of his revengefulness brings devastation, the narrator doesn't find himself guilty; he thinks that it was the natural reaction of the prejudices he had suffered from.

Dhritarashtra, who had struggled a huge psycho-conflict for his identity search amid the situations of his identity loss, has taken a hard decision to let the battle happen expecting the positive outcome in favor of his son. But the result of the battle was reverse to his expectations.

However, he is not remorseful; rather he blames the prevalent situations and people for the tragedy he faces. The state of mind of the protagonist proves his longing to be free and obtain his rights is in his unconscious level. In fact, his struggle is certainly against the social discriminatory cultures against the people having physical disabilities. It is widely accepted truth that no one's life is absolutely complete and fully satisfying because of suffering and losses that one has to go through due to various reasons. Even though everyone agrees that life is not optimally satisfying, it nonetheless has meaning. By the way, the narrator's identity rethink in Kandel's "*Dhritarashtra*" is the search for true self and true personal meaning of life which is free from stigma and taboos, and it can enjoy absolute freedom.

References

- Freire, P. (2005). Pedagogy of the oppressed. In *The Continuum International Publishing Group Inc* (30th ed.). Continuum. https://doi.org/10.4324/9780203891315-58
- Jena, D., & Samantray, K. (2021). Narrative Tools and Strategies : Representation of Trauma in The Mahabharata. *International Journal of Applied Linguistics & English Literature*, 10(6), 84–92. https://doi.org/http://dx.doi.org/10.7575/aiac.ijalel.v.10n.6p.84
- Kavitha, R. (2016). Subtle Villains in Literature. *International Journal for Multidisciplinary Research*, 1(1), 76–79.

Kandel, G. (2017). Dhritarashtra. Airavati Publications Pvt. Ltd. Kathamndu.

Krishnamurti, J. (2010). Freedom from the known. Chennai: Krishnamurti Foundation.

Roberts, D. (1957). Existentialism and religious belief. New York: Oxford University.

Wierzbicka, A. (1998). Angste. Culture & Psychology. 4(2):161-188.

doi:10.1177/1354067X9800400202

https://en.wikipedia.org/wiki/When_I_Consider_How_My_Light_is_Spent

Willingness to pay for Conservation of Jakhor Taal Wetland in Nepal: A Contingent Valuation Method (CVM)

Govinda Raj Upadhyay

Aishwarya Multiple Campus Dhangadhi, Kailali Far-Western Province Nepal Email : megovinda@gmail.com

Article History : Received Date : 2079/05/20; Accepted Date : 2079/08/10

Abstract

The Jakhor Taal Wetland in Nepal is being compensated ecologically, and this study investigates the factors that determine respondents' willingness to pay (WTP) and their payment levels. We developed a survey and received 250 useful responses. For the empirical study, the contingent valuation method (CVM) under the Tobit model was used. With an average WTP of NPR 463 per year, the results suggest that 87.2% of respondents are willing to pay for the conservation of the Jakhor Taal Wetland. Income, education, gender, and job opportunity for improving Jakhor Taal wetland resources are the influencing elements that have a substantial impact on respondents' WTP. Additionally, there is a substantial correlation between respondents' income, education, gender, and employment opportunities. The results of this study help to formulation of new plan for protection and management of wetlands services.

Keywords: willingness to pay (WTP); wetland; CVM, Ecosystem services

Introduction

Wetland areas are described by the Ramsar Convention as 'Areas of marsh, fen, peat land or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish, or salt, including areas of marine water the depth of which at low tide does not exceed six meters' (Lamsal et al., 2015; Thapa et al., 2020; Thapa et al., 2022; Poudyal et al., 2021). Wetlands are adaptable ecosystems that offer ecosystem services vital to the social and economic prosperity of the local communities living close to or around wetlands. No matter whether a market price is available, wetland products and services can still be valued quantitatively and qualitatively. Planning, developing policies, and making decisions can then be done by comparing the wetland's quantifiable value with other economic sectors (Adekola et al., 2015; Lamsal et al., 2015). Wetlands are known to support more than 20,000 waterfowl and encompass an area of 743,563 ha, (Thapa et al., 2020) which is equivalent to 5% of Nepal MFSC's landmass (2014). Among Nepal's wetlands, eleven locations with a combined surface area of 60, 561 ha have been classified as wetlands of international importance (Ramsar, 2018; Thapa et al., 2020). Wetlands maintain a steady supply of ecosystem services (ES) that directly assist millions of people in maintaining their way of life on a local and global level (Finlayson et al., 2019; Feyisa & Bersisa 2019). Species and processes associated with their habitat provide this flow. The advantages of wetlands preserve biological diversity, support the life support system, and help us understand how human activities affect the provision of ecosystem services Sah & Heinen (2001). The lack of understanding among the people about the services of the lake and the failure to take this value into account by policymakers lead to its over-exploitation or excessive degradation You & Pabuayon (2011). Due to a lack of knowledge about the protection of wetlands, there must be an undervalue or exploitation of the resources. Similarly, as a respondent's income and financial situation directly influence their willingness to pay, having a low WTP will have an effect on the overall value of natural resources because it will be lower for poor people. On the other hand; ecosystem services of wetlands are non-visible and possess the quality of public goods Bakker & Matsuno (2001). Due to this reason, their true value is generally overlooked in development and environmental decision-making processes, which eventually leads to poor management (TEEB 2010; Adhikari et al., 2017; FEREDE 2021). Thus, there are very few market mechanisms to capture the benefit or price of ES of wetlands because of a low understanding of wetland value (Adhikari et al., 2017). Due to the realization of the importance of Nepal's wetlands in terms of its ecological and economic perspective, various organizations and independent researchers have been working in the field of wetland valuation (Sharma et al.,2015). However, there is still insufficient information on the valuation of ecosystem services. Thus, to provide effective advice to facilitate and improve the estimation of the economic values of wetlands, it is necessary to understand the contribution of wetland ecosystem services and their management mechanisms (Costanza et al., 2014). The purpose of this study is to explore ecosystem services provided by wetlands and estimate the value of ecosystem services. Also, this study focuses to investigate factors that affect the WTP for the Protection of the Jakhor Taal wetland. The monetary value of the selected ES of Jakhor Taal wetland has been estimated based on its contribution to local wetland users. Contingent Valuation Method (CVM) is a valuation technique used to estimate the value of environmental resources. So, the present study attempts to estimate the economic value of the Jakhor Taal wetland using CVM. The findings of this research are expected to be helpful for wetland users and policy and decision-makers to take effective decisions.

Materials and methods

Study Area

Jakhor Taal wetland is a large persistent Ox-bow Lake that lies in Dhangadhi -7 Dewariya, Kailali, Nepal. It is one of the richest lakes in biodiversity and is also listed as one of the optimum wetland resources of Nepal which plays an important role in biodiversity. It is situated at an altitude of 150 m above mean sea level (28.70641°N and 80°6225°E latitude and longitude, respectively) in the tropical lowland of far western Nepal. It is an Ox-bow Lake system covering an area of 13.49 ha. Near this lake, there are another two lakes at the distances 200 m and 440 m, named Murfutta and Murfutti whose areas are about 2.52 ha and 1.32 ha respectively. This lake is surrounded by the dense forest in the Northwestern part circulating 2/3 of the whole lake boundary and attached to the Dewariya Botanical Garden towards its south which contains a total area of 149.50 ha. The main sources of water for this lake are usually through rainfall and small streams which run off from nearby surrounding forest and are collected in this place. This lake is situated 165m high from the sea level. The water level during the winter and the summer falls to a considerable amount but doesn't dry up. But during the rainy season, the water level extends too high and gets overflowed.

Figure 1:

Map of Jakhor Taal



Figure 2: Map of Jakhor Taals



Contingent valuation

This study applied Contingent Valuation Method (CVM), as a survey method in which respondents are asked how much they are willing to pay for the conservation of natural goods, where Their tastes are presumptively dependent on the alternative commodities available in a fictitious market. This methodology is appropriate for valuing environmental goods that have no market data or their proxies but affect the welfare of the respondents. A major strength of CVM is that it can be applied to different valuation situations since it does not rely on the actual market or observed behavior (Pearce & Moran, 1994; Adhikari et al., 2017; Mandal et al., 2018). This study used WTP under CVM which has been commonly used as one of the standard approaches for measuring the economic value of non-market goods, for example, environmental quality (Whittington et al., 1990; Islam et al., 2018)). Although having some strength, the CVM is subject to a number of biases that affect the validity and reliability of its results (Arrow et al., 1993; Adhikari et al., 2017). Therefore, it is very important to reduce underlying biases and make the respondents well-informed before capturing the WTP of environmental goods and services. This study had handled quite aware of the WTP scenario and its impacts on the respondents (Lamsal et al., 2015). For estimating WTP, we used the iterative bidding technique. This method was first used by Davis (1963) cited (Adhikari et al., 2017) which minimizes starting point bias. According to (Hoehn and Randall 1983; Poudyal et al., 2021), the iterative technique significantly extends the time the respondents spend in valuing the goods and therefore improves the quality of the response.

Figure 3

Total Economic Value



The dichotomous choice method-based referendum formats are now popular in CVM. (Whittington, 2002). The bidding approach has also been used for bid collection. This study used the open-ended questionnaire survey approach to elicit the willingness to pay. This is the most common and simplest form of CVM (Freeman,2003; Endalew et al., 2018; Mohammed & Mengist, 2018). There are two main reasons for this choice. Firstly, dichotomous choice questions tend to overestimate the WTP, especially for studies conducted in low-income countries (White and Lovett, 1999). Secondly, getting statistically reliable results from a dichotomous choice type of survey requires a large sample (White and Lovett, 1999), not possible in the current study due to the population size, time, and resource constraints. During the questionnaire survey, the form and frequency of payments were clearly explained to the respondents. The entry fees in this study were the annual membership fee for the Lake users from the particular CF to maintain at least the quality of natural resources as it is (Adhikari et al., 2017; Sewunet et al., 2022; Asmamaw et al., 2016; Enyew et al., 2020)

A strong criticism of CVM has been that hypothetical survey responses are subject to various biases. (Poudel & Johnsen, 2009; Diamond & Hausman, 1994; Baral et al., 2008). The primary sources of biases include hypothetical bias, information bias, strategic bias, design bias, and embedding bias (Hanley, et al., 2004). This study was designed according to (Adhikari et al., 2017) to reduce such potential biases by delivering clear and equal information to all the respondents, explaining a well-defined hypothetical market structure of wetlands, and using a thoroughly pre-tested questionnaire. To test the validity of the responses, the questionnaire contained questions about the respondents' demographic and socio-economic backgrounds as well.

Data collection and analysis

The survey was conducted over a period of 1 month, from 21 October to 21 November 2022, at the Jakhor Taal. The study was based on primary data collected from local people to the Jakhor Taal during this time period, and who participated in the survey. Before conducting a survey, one focus group discussion (FGD) was held with the

local people near the Jakhor Taal, In order to gather information on overall rural tourism conditions, tourist infrastructure, and visitors flow, and to finalize the respondent's selection criteria and timing of the interview to carry out the questionnaire survey. From the FGD, it was learned that an average of 15 Jakhor Taal visitors, visit the Jakhor Taal each day, and most of them were students of college and school from Dhangadhi areas and Kanchanpur district. The best time for administering the questionnaire survey was identified to be between 11:30 AM to 5:30 PM. As the Jakhor Taal has open access entry with no defined physical boundary, we used a simple random sampling technique to select samples among the visitors inside the Jakhor Taal areas who were involved in recreational activities, Picnic, and leaf, firewood collection within the selected time frame. Screening questions were asked before commencing formal survey sessions to eliminate respondents who lived in the periphery of the Jakhor Taal, and who visited on a daily basis for wetland resource collection or other household purposes. All the lake visitors we approached for the survey gave their consent to participate in the study. For this Jakhor Taal visitors in groups, only one member of the group, either male or female, was interviewed. On average, 20 Lake users or visitors were interviewed in the set time of six hours. This gave us a total of 250 samples from the population size of this study. The questionnaire for the preservation of Jakhor Taal was developed and pre-tested. The questionnaire was comprised of three parts. Part I asked for a respondent's profile, and information such as age, marital status, household size, education, income, and occupation. The next part measured a respondent's recreational behavior, such as the number of wetland visits, average time spent at the Jakhor Taal, their expenditure on visit time, total time spent on visit and distance to and from the lake, available recreational quality, satisfaction as a result of the Jakhor Taal visit, and improvements needed. The last part measures the respondents' attitude towards their willingness to pay for better conservation of Jakhor Taal's biological and physical resources in the future, the Main problem observed by respondents.

The questionnaire was translated into the Nepali and Tharu language to make it more readable for the local enumerators. five local enumerators with a Master's level education were selected, familiarized with the survey questionnaire and the WTP scenario, and trained for 2 days on how to capture and cross-triangulate relevant information from the respondents. The participants in the FGD suggested NPR 25 per person as an average amount that visitors to Jakhor Taal could easily afford. Interestingly, NPR 25 was the amount imposed by other public parks in the country for domestic visitors, including most of the national parks and wildlife reserves (DNPWC, 2008) cited by (Thapa, 2020). Thus, we considered NPR 25 as the starting bid amount for estimating WTP as an entry fee for the Jakhor Taal wetland. After the survey, each questionnaire was scrutinized for its data consistency. The data was compiled and analyzed in SPSS 26 and STATA 13 software. Apart from calculating general descriptive statistics, Ordinary least squares (OLS) regression and Tobit model was suggested by Tasew (2019) to identify factors affecting the respondent's willingness to pay for the preservation of Jakhor Taal. The explanatory variables and the expected sign are listed below.

Table 1

Variables	Description	Variable type	Value	Exp. sign
Dependent Var	iable			
MWTP	Maximum Willingness to pay	Continuous	NRs.	
Independent Va	ariables			
AGE	Age of the respondent	Continuous	Year	-
GEND	Sex of the respondent	Dummy	1= male; 0=Female	±
EDU	Level of education	Continuous	1= Up to secondary level 0=Bachelor Degree and above	+

Summary of variables included in the model and their expected sign

Variables	Description	Variable type	Value	Exp. sign
HH_INC	Income of the respondent	Continuous		+
HH_SZ	Number of family members	Continuous		_
DIS	Distance from respondents' home to lake	Continuous	KM	±
MSTATUS	Marital status of the respondent	Dummy	1 = Married; 0=other wise	±
JOBOPP	At least one member of the family get job	Dummy	1= yes 0 otherwise	+
INITIAL_BID	Willingness to pay of respondent	Dummy	1 = "yes" 0 otherwise.	+

WTP scenario

The respondent's WTP situation is provided in each respondent was made aware of the need for its conservation. The researcher was hypothesized as payment for conservation activities. Both short-term and long-term objectives of the conservation plan of the hypothetical market structure were made clear and the respondents were asked to contribute to it through monetary means. The starting bidding price for the WTP was fixed at NPR 25. If a respondent said 'yes' for NPR 50 initially, then there was hope that he/she would have a willingness higher than this value, so we asked the same question again but by increasing the amount by NPR 25 at each step, up to a maximum of NPR 200. If at any point a respondent did not show willingness, that particular amount was decreased by NPR 25 to precisely capture their preference. Also, once a respondent reached NPR 200, an open-ended question was asked to state a maximum WTP. Similarly, if a respondent said 'no' on NPR 25, then this amount was decreased by NPR 5 at a time down to zero. If a respondent was not willing to pay even as much money, he was asked to give the reason behind his or her decision to determine whether it was a form of protest. The respondents were also given an opportunity to change the initial value of WTP if they wished after going through the entire bidding process. The current study Tobit model was used to identify factors that determine the maximum amount a respondent is willing to pay (Max_WTP) for the Jakhor Taal protection.

For OLS regression model

WTP = $\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + ... + \beta_n X_n + e_i$

where, WTP is the users' willingness to pay of respondent (dependent variable),

were β_0 to β_n are the parameters to be estimated, X_1 to X_n = explanatory variables influencing WTP and e_i = random error normally and independently distributed with zero mean and constant variance of one. Explanatory variables (Age, Gender, Education, Income, HH size, distance, Voluntary contribution (WTPi), Initial Bid, etc).

Tobit Model

In Tobit model, start with a latent variable y^* , which is only partially observed by the researcher:

 $y^* = \beta_0 + \beta_1 X + \varepsilon,$

and $\varepsilon \sim N(0, \delta x^2)$

The model can be written as:

$$\begin{aligned} \mathbf{y}_{i}^{*} &= \mathbf{Q}_{o}\mathbf{y}_{i} + \mathbf{Q}_{1}\mathbf{x}_{i} + \varepsilon_{i} & \mathbf{i} = \mathbf{1}, \mathbf{2} \\ \mathbf{y}_{i} &= \mathbf{y}^{*} & \mathbf{i}\mathbf{f} \ \mathbf{y}_{i}^{*} > \mathbf{0} \\ \mathbf{y}_{i} &= \mathbf{0} & \mathbf{i}\mathbf{f} \ \mathbf{y}_{i}^{*} \leq \mathbf{0} \\ \mathbf{\varepsilon} &\sim N(0, \delta^{2}) \text{ and independent of } \mathbf{x}_{i}. \end{aligned}$$

The model given below equation is referred to as the censored regression model. It is a standard regression model, where all negative values are mapped to zeros. That is, observations are censored at zero.

 $MWTP_i = Q_0 + Q_1X_i + \varepsilon_i$ *IF*, MWTP > 0, 0 otherwise

MWTP is the unobserved maximum willingness to pay for individual j is censored,

 β_0 is the intercept term,

 β_1 is vector of coefficients,

 X_j vector of independent variables and

 ε_i is the disturbance term with $\varepsilon_i \sim N(0, \delta^2)$ and

 $MWTP_i$ is a latent variable corresponding to MWTP.

For the CV survey responses, the maximum WTP figures reported by the respondents can be simply be averaged to produce an estimate of mean WTP:

MWTP=EYin/N

Where N is the sample size and each y is a reported WTP amount by survey respondents (Nigistie, 2015). Finally, the Tobit model perform in this study is a

Max_WTP = $\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + ... + \beta_n X_n + e_i$

Results and Discussion

Willingness to pay for the protection of Jakhor Taal

To elicit the maximum WTP, after entering data from the survey, respondents were asked if they are willing to pay any amount of money at all. Among the 250 respondents, 86.8% (217 respondents) agreed that they are willing to contribute a certain amount of money for the protection of Jakhor Tal. The socio-economic characteristics of the respondents show that the overall mean age of the respondents was 34 years. About 72.8% of the respondents were male, and the majority of the respondents (83.6%) were married. From this study, data on the level of education showed that 81.6 % had attained up to secondary level education and 18.4 % had completed university-level education. The average per-month income of the respondents was more than NPR 8000. About 17.8 % of the Nepalese population was identified below the poverty line. The socio-economic characteristics and their influence on willingness to pay are presented in the given table and diagrams. Summarize

Table 2

Max_WTP

Variable	Obs	Mean	Std. Dev.	Min	Max
Max_WTP	250	463.472	1025.786	0	10000

The minimum amount of money that respondents are willing to pay is 0 per household per year and the maximum amount of money recorded is NPR 10,000 per year. The mean WTP is NPR 463.47 per year.

Table 3 : Voluntary Contribution

	Frequency	Percent
No	33	13.2
Yes	217	86.8
Total	250	100.0

Figure 4









Figure 6



Figure 7



Attitudes towards the protection of Jakhor Taal

Among 86.8% of respondents who agreed that they are willing to contribute a positive amount of money, only a few 13.2% were unwilling to pay the initial bid amount NPR 25 From this sample, the mean maximum WTP was estimated and it is presented in table and figure. The respondent's maximum WTP from the iterative bidding elicitation method is a continuous dependent variable that accepts zero values. The relative importance of factors that are likely to influence the WTP was assessed using an OLS regression model that allows the inclusion of respondents' socio-economic characteristics into the WTP function.

2	2	Df	MS	Number of obs	= 250
Model	433226739	11	39384249	F(11, 238)	= 33.53
Residual	279553683	238	1174595.31	Prob > F	= 0.0000
Total	712780423	249	2862571.98	R-squared	= 0.6078
				Adj R-squared	= 0.5897
				Root MSE	= 1083.8

Table 4
Max WTP	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
Age	16.3611	9.424582	1.74	0.084	-2.205153 34.92735
Gender	-350.7537	185.3797	-1.89	0.060	-715.9482 14.44083
Marital_Status	908.2327	263.7307	3.44	0.001	388.6881 1427.777
HH_size	-49.02058	39.21171	-1.25	0.212	-126.2669 28.22576
Education	-548.385	250.7307	-2.19	0.030	-1042.32 -54.45024
HH_income	.0549379	.0119596	4.59	0.000	.0313776 .0784981
Distance	-220.9792	41.23435	-5.36	0.000	-302.2101 -139.7483
Problem_Observed	-85.81403	72.57147	-1.18	0.238	-228.7785 57.15043
Munipacility_Role	209.7828	138.8804	1.51	0.132	-63.80917 483.3747
Intial_Bids	13.60624	1.193784	11.40	0.000	11.25451 15.95797
WTPi	-795.0604	281.0419	-2.83	0.005	-1348.708 -241.413
_cons	-428.2562	572.1144	-0.75	0.455	-1555.311 698.7985

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This includes income, age, education level of the respondents etc. Based on the current study, from a sample of 250 respondents, only 33 said their maximum WTP is 0; these constituted approximately 13% of the total number of observations. This percentage being less than 25% allowed the use OLS regression model to estimate the relative influence of hypothesized explanatory variables on the maximum WTP. The description of the explanatory variables that were hypothesized to influence the maximum WTP is listed in Table above. OLS model estimates for the factors influencing the WTP for the protection of Jakhor Taal wetland. Coefficient estimates of the independent variables help to identify those factors, which influence statistically the maximum WTP. The coefficient of determination R^2 is a summary that tells the researcher how well the sample regression line fits the data (Gujarati, 2007). The higher the R^2 , the better the fit of the model to the data. The R^2 of the OLS model was found to be 0.60, which means that about 60.78% of the variation in the maximum WTP in the sample can be explained by independent variables.

For Tobit Model

Table 5

	Number of obs	= 250
	F(11, 239)	= 45.73
	Prob > F	= 0.0000
Log pseudolikelihood = -1839.4831	Pseudo R2	= 0.0687
Robust		

Max_WTP	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
Age	17.02723	8.513607	2.00	0.047	.2559436 33.79852
Gender	-320.7503	162.4167	-1.97	0.049	-640.70157992013
HH_income	.0549937	.0102605	5.36	0.000	.0347811 .0752062
Marital_Status	900.4265	313.6169	2.87	0.004	282.6203 1518.233
HH_size	-41.60533	35.17542	-1.18	0.238	-110.8988 27.68812

Max_WTP	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
Education	-633.2719	267.3561	-2.37	0.019	-1159.947 -106.5965
Distance	-245.3446	55.55698	-4.42	0.000	-354.7885 -135.9007
Problem_Observed	-97.97118	76.6621	-1.28	0.203	-248.9909 53.048
Munipacility_Role	224.7385	149.297	1.51	0.134	-69.36754 518.8445
WTPi	1462.197	528.4127	2.77	0.006	421.2557 2503.138
Intial_Bids	13.31271	1.46073	9.11	0.000	10.43516 16.19026
_cons	-2569.06	807.4461	-3.18	0.002	-4159.68 -978.4401
/sigma	1132.292	140.1543			856.196 1408.387

Obs. summary: 32 left-censored observations at Max WTP<=0

217 uncensored observations

1 right-censored observation at Max_WTP>=10000

Table 6

Marginal effects after tobit

y = Linear prediction (predict)

= 984.53655

Variable	dy/dx	Std. Err.	Z	P> z	[95% C.I.]	X
Age	17.02723	8.51361	2.00	0.046	.34087 33.7136	33.776
Gender*	-320.7503	162.42	-1.97	0.048	-639.081 -2.41938	.728
HH_inc~e	.0549937	.01026	5.36	0.000	.034883 .075104	8458
Marita~s*	900.4265	313.62	2.87	0.004	285.749 1515.1	.836
HH_size	-41.60533	35.175	-1.18	0.237	-110.548 27.3372	4.928
Educat~n*	-633.2719	267.36	-2.37	0.018	-1157.28 -109.263	.816
Distance	-245.3446	55.557	-4.42	0.000	-354.234 -136.455	3.408
Proble~d	-97.97118	76.662	-1.28	0.201	-248.226 52.2838	1.728
Munipa~e	224.7385	149.3	1.51	0.132	-67.8782 517.355	2.144
WTPi	1462.197	528.41	2.77	0.006	426.527 2497.87	.868
Intial~s	13.31271	1.46073	9.11	0.000	10.4497 16.1757	148

(*) dy/dx is for discrete change of dummy variable from 0 to 1

The estimation results are presented in Table 5 and 6. Taking the willingness to pay at least some amount of money as the dependent variable, the results show some of the independent socio-economic variables are significant at1% and 5% level. In the analysis, the respondent's opinions, attitudes and values were considered that of a respective household. It was evident that the age variable is willing to pay significant amounts to protect and conserve the wetlands. As given in Table 5, the effects of some of the independent variables were insignificant and this was expected. Most of respondent indicated zero payment which caused a censor problem; however, the Tobit model gave better estimate for this study rectifying the issues arisen due to non-representative sampling.

The variable HH_Income, s initial bids and distance variables are statically significant at 1% level. This means, the above variables are strongly affecting Max_WTP. The marginal effect shows that, keeping other things constant,

an increase the income of the respondents by one Re 1 would increase the Max_WTP by 54%. The variable age, gender, education and WTPi for respondents has significant at 5%. Thus, they are positive on the amount of Max_WTP for protection of the lake. Age, of respondent significant at 5%, it is expected that people with increase the age can understand the need for wetland resources better than younger. Marital status variable also significant more than 1%. All of the result shows that there is close relationship with the actual amount that respondent would pay for conservation of Jakhor Taal wetland.

The reason for zero willingness of the respondents

Table 7

Reason for not willing to pay	Frequency.	Percent
I need but, I didn't have ability to pay	6	18.18
I am not believing	7	21.21
Natural wetlands protection is Government responsibility	16	48.48
I am not interested	4	12.12
Total	33	100

Figure 8



Conclusions and Recommendation

The objective of the study about value of ecosystem services is increasing public awareness and this value contributing to better-informed public decisions. Wetland valuation studies could attempt where everyone's voice is heard through the benefits, irrespective of how much a person contributed for protection of natural resources. Valuation studies have to potential to provide an effective guideline for appropriate policy formulation process. The benefit of preservation of Jakhor Taal wetland for the society based on WTP can help policy makers understand the consequences for present policies on the values in the long run. The results showed that 86.3% of respondents who agreed that they are willing to contribute a positive amount of money to the hypothetical restoration charge. The demographic variables are important predictors of WTP. Income, education level, marital status, and bidding value were significant predictors in single bounded CVM. This study can provide the policy makers an indicator on the conservation value that respondent's willing to pay and support for the protection programs. This study

provides additional insight to designing ideal starting bid range value and WTP estimates. Natural resource including ecosystem is an important part of wealth in the country. The Policy makers should allocate the resource more efficiently in conserving Jakhor Taal rural tourist attraction area given that the benefits are important with limited budget. It is realized that the management group/ team of Jakhor Taal is still far from complete although many efforts has been put on by the Government and Community. Hence, in the future definitely need to have a better co-management among the stakeholders to secure the valuable resource of wetland. This study estimated the economic value of conservation and recreation at Jakhor Taal ox-bow Lake Wetlands, using CVM. The fact is that the expenses of Jakhor Taal conservation and management are supported by government with nominal funds. The result of this study indicated that respondents are willing to pay 463 per Annam for protection of Jakhor Taal management to impose entrance fee on visitors in order to obtain an extra conservation funding and reduce the currently faced financial constraint. At the same time, the number of lake user could be control through the entrance fee, which would help in reducing over-crowding and excessive exploitation of the wetland resources use.

References

- (Lamsal et al., 2015). An analysis of willingness to pay for community-based conservation activities at the Ghodaghodi Lake Complex, Nepal. International Journal of Biodiversity Science, Ecosystem Services & Management, 11(4), 341-348.
- Adekola O, Mitchell G, Grainger A (2015) Inequality and ecosystem services: the value and social distribution of Niger Delta wetland services. Ecosystem Services 12:42–54
- Adhikari, D., Thacher, J. A., Chermak, J. M., & Berrens, R. P. (2017). Linking forest to faucets in a distant municipal area: Public support for forest restoration and water security in Albuquerque, New Mexico. *Water Economics and Policy*, 3(01), 1650019.
- Asmamaw, B., Beyene, B., Tessema, M., Kara, A., Goshu, B., & Assefa, A. (2016). Estimating willingness to pay for Labeobarbus fish species conservation in Lake Tana, Ethiopia: A Contingent valuation study. *Int. J. Nat. Resour. Ecol. Manag*, 1, 155-161.
- Bakker, M., & Matsuno, Y. (2001). A framework for valuing ecological services of irrigation water–A case of an irrigation-wetland system in Sri Lanka. *Irrigation and Drainage Systems*, 15(2), 99-115.
- Costanza R, de Groot R, Sutton P, Van der Ploeg S, Anderson SJ, Kubiszewski I, Farber S, Turner RK (2014) Changes in the global value of ecosystem services.Global Environmental Change 26:152–158
- Endalew, B., Tassie, K., & Ayalew, Z. (2018). Non-Market Measurement Techniques of Willingness to Pay, the Case of Environmental Resources: A Review. *Journal of Agriculture and Environmental Sciences*, 3(2).
- Enyew, B. G., Assefa, W. W., & Gezie, A. (2020). Socioeconomic effects of water hyacinth (Echhornia Crassipes) in Lake Tana, North Western Ethiopia. *PloS one*, 15(9), e0237668.
- FEREDE, H. (2021). ASSESSING THE ECONOMIC VALUE OF PROTECTING LAKE TANA (Doctoral dissertation).
- Feyisa, B., & Bersisa, M. (2019). Valuation of Wetland Attributes: An Application of Choice Experiment Approach: A Case Study of Lake Koka. *Journal of Investment and Management*, 8(5), 76-85.
- Finlayson CM, Davies GT, MoomawWR (2019) The second warning to humanity providing a context for wetlandmanagement and policy. Wetlands 39:1–5. https://doi.org/10.1007/s13157-018-1064-z
- Islam, M. A., Ahmad, S. A., & Islam, R. (2018). Estimating Willingness to Pay for Improving River Water Quality Using Contingent Valuation Method: A Conceptual Framework. *International Journal of Management*, Accounting and Economics, 5(8), 643.

- Lamsal, P., Atreya, K., Pant, K. P., & Kumar, L. (2015). An analysis of willingness to pay for community-based conservation activities at the Ghodaghodi Lake Complex, Nepal. *International Journal of Biodiversity Science, Ecosystem Services & Management*, 11(4), 341-348.
- Lamsal, P., Pant, K. P., Kumar, L., & Atreya, K. (2015). Sustainable livelihoods through conservation of wetland resources: a case of economic benefits from Ghodaghodi Lake, western Nepal. *Ecology and Society*, 20(1).
- Mandal, M. H., Siddique, G., & Roy, A. (2018). Threats and opportunities of ecosystem services: A geographical study of Purbasthali oxbow Lake. *Journal of Geography, Environment and Earth Science International*, 16(4), 1-24.
- MFSC (2014) Nepal biodiversity strategy and action plan (2004–2014). Ministry of Forest and Soil Conservation. Government of Nepal, Kathmandu.
- Mohammed, I., & Mengist, M. (2018). Status, threats and management of wetlands in the lake Tana sub-basin: a review. *Journal of Agriculture and Environmental Sciences*, 3(2).
- Nirere, S. (2012). An assessment of farmers' willingness to pay for the protection of Nyabarongo River system, Rwanda (Doctoral dissertation).
- Poudel, D., & Johnsen, F. H. (2009). Valuation of crop genetic resources in Kaski, Nepal: Farmers' willingness to pay for rice landraces conservation. *Journal of Environmental Management*, 90(1), 483-491.
- Poudyal, B., Upadhaya, S., Acharya, S., & Khanal Chhetri, B. B. (2021). Assessing socio-economic factors affecting the implementation of payment for ecosystem services (PES) mechanism. *World*, 2(1), 81-91.
- Ramsar (2018) National Rmsar Strategy and action plan Nepal 2018–2024. Government of Nepal, Ministry of Forest and Environment
- Sah, J. P., & Heinen, J. T. (2001). Wetland resource use and conservation attitudes among indigenous and migrant peoples in Ghodaghodi Lake area, Nepal. *Environmental conservation*, 28(4), 345-356.
- Sewunet, B., Gizeyatu, A., Lingerew, M., Girma, H., Keleb, A., Malede, A., ... & Gebrehiwot, M. (2022). On the use of contingent valuation method to assess factors affecting the contribution of local people for the management of water hyacinth in Lake Tana, northwestern Ethiopia. *Environmental Science and Pollution Research*, 29(58), 88147-88160.
- Sharma B, Rasul G, Chettri N (2015) The economic value of wetland ecosystem services: evidence from the Koshi Tappu wildlife reserve, Nepal. Ecosystem Services 12:84–93
- Sylvie, N. (2012). An Assessment of Farmers' Willingness to Pay for the Protection of Nyabarongo River System, Rwanda (No. 634-2016-41470).
- Tasew, T. G. (2019). Households' Willingness to pay for Water Hyacinth Control to Lake Tana, Ethiopia: An application of Contingent Valuation Method. *Addis Ababa University*.
- TEEB (2010) The economics of ecosystems and biodiversity: ecological and economic foundations. Earthscan, London
- Thapa, S., Shrestha, S., Adhikari, R. K., Bhattarai, S., Paudel, D., Gautam, D., & Koirala, A. (2022). Residents' willingness-to-pay for watershed conservation program facilitating ecosystem services in Begnas watershed, Nepal. *Environment, Development and Sustainability*, 24(6), 7811-7832.
- Thapa, S., Wang, L., Koirala, A., Shrestha, S., Bhattarai, S., & Aye, W. N. (2020). Valuation of ecosystem services from an important wetland of Nepal: A Study from Begnas watershed system. *Wetlands*, 40(5), 1071-1083.
- Youe, A., & Pabuayon, I. M. (2011). Willingness to pay for the conservation of flooded forest in the Tonle Sap Biosphere Reserve, Cambodia. *International Journal of Environmental and Rural Development*, 2(2), 1-5.

Determination of Arsenic in Underground Water by Digital Arsenator Technique at Attariya, Kailali

Manoj Ojha

Lecturer of Chemistry Aishwarya Multiple Campus, Dhangadhi, Kailali Email : manojchem83@gmail.com

Article History : Received Date : 2079/06/M20; Accepted Date : 2079/08/20

Abstract

This paper reviews the recent status of arsenic in ground water of remote area of Attariya. In our study we had used digital arsenator kit and this kit gives reading of arsenic level within the range of 2 to 10 microgram per litre of water. The digital arsenator solve the complex problem of how to measure arsenic in the field accurately and safely. Five samples from different depth hand pumps were taken. The maximum amount of Arsenic was found to be $10.1\mu g/L$ in 50 feet deep hand pump slightly above value recommended by WHO and minimum value was $0.98\mu g/L$ in 150 feet which was under the recommended value of WHO for drinking water .

Key Words: Arsenic; Arsenator; hand pump; concentration

Introduction

Arsenic is a solid substance that is naturally found in the Earth's crust. It can be incorporated into soil, dust, water, food, and air particles. Arsenic is an element, which is classified as a semi-metal. It's pure form is gray colored and it is usually found in combination with other elements (e.g. gold, silver, lead, and copper). It has no odor or taste. Almost all arsenic is found in the inorganic form and it is what we come across in soil, rocks, groundwater, surface water, and industrial waste. Organic arsenic, on the other hand, can be found in pesticides, animals, plants, and fish. Humans have used arsenic for a very long time. Humans have used arsenic for a very long time. In the past, it was utilized as a fabric dye, beauty treatment, and leather tannin. Common uses of arsenic today are as wood preservatives, agricultural insecticide, cotton defoliants (causes leaves to fall off), as well as in electronic and medicine products. The most current concerns regarding arsenic include natural sources contaminating drinking water and its absorption in some foods (e.g. rice and lettuce) that we may consume. Under United States drinking water law, water from public systems must be tested for arsenic. In the U.S. the maximum contamination level (MCL) for arsenic that is allowed in drinking water as established by the US Environmental Protection Agency (US EPA) is 10 parts per billion (ppb). The MCL is an enforceable drinking water quality standard. It indicates the upper limit of a substance that can be present in public water systems. The US EPA sets this standard by considering how much of the substance may be present without causing adverse human health effects. It is important to highlight that the US EPA only sets these standards for drinking water, and does not regulate bottled water.

The first version of International standards for drinking water included arsenic in the category of toxic substances and established 200 ppb as the allowable concentration in drinking water (WHO, 1958). In updated standards of 1963, WHO lowered the allowable concentration to 50 ppb (WHO, 1963). The WHO continued its review work to lower the guideline value for arsenic in drinking water by establishing a guideline value (provisional) of 10 ppb in 1993 (WHO 1993). This provisional Guideline Value (GV) of 10 ppb has been adopted as the national standards for drinking water by a number of countries. However many developing countries have retained the previous WHO GV of 50 ppb as their national standards.

The current recommended limit of arsenic in drinking-water is $10\mu g/L$, although this guideline value is designated as provisional because of practical difficulties in removing arsenic from drinking-water.

Majority (90%) of the people in the Terai region depends on dug wells and tube wells as their primary source of potable water. However, deterioration of ground water resources due to a variety of anthropogenic activities has become a growing concern in many parts of the world including Nepal. A number of studies have been conducted on the ground water quality in Nepal; however, they have been mostly conducted in Kathmandu Valley. These studies have dealt with physico-chemical analysis of water and bacterial contamination; Arsenic contamination. These investigations have shown the groundwater in the valley contaminated with Ammonia, Nitrate, Iron as well as coliform. Studies in the Terai region have also focused mainly on Arsenic contamination. The findings revealed that most of the samples contained arsenic concentration below $10\mu g/l$. However, some of the samples did exceed this limit with concentration ranging from 10- $50\mu g-1$ and $> 50\mu g-1$. The studies have further shown that Arsenic contamination in this region is of geogenic origin. Similarly, most of the studies in the Terai of the Far- Western Development Region of Nepal have also focused on groundwater arsenic contamination.

Arsenic exposure to human causes arsenic diseases like spots on the skin, high blood pressure, diabetes, skin cancer, cancer of urinary bladder, kidney and lungs (Prakash and Verma 2021). Arsenite is more toxic and is reported to be more mobile in the environment (Bohara 2005). Skin lesion and skin cancer are the most characteristic effects (WHO 2011, fourth edition).

Arsenic can enter the water supply from natural deposits in the earth or from industrial and agricultural pollution. It is widely believed that naturally occurring arsenic dissolves out of certain rock formation when ground water levels drop significantly. In the aqueous environment, the +3 and +5 oxidation states are most prevalent, as the oxyanions arsenite.

Several technologies are available for the determination of arsenic in aqueous media. Among the methods latest commonly used by Government of Nepal, Water Department, Digital Arsenator is used which gives readings of arsenic levels within the range of 2 to 100 microgrammes per litre (μ g/litre) of water. The Arsenator kit solves the complex problem of how to measure Arsenic in the field accurately and safely. Built around an unique tri-filter assembly, the Arsenator simplifies and improves field arsenic testing to exceed the WHO guideline value of 10 ppb in drinking water. Sensitivity down to 2 parts per billion - unique in a field analysis system 3-stage filter system increases sensitivity, removes interference from Sulfide and protects the operator. Comprehensive field kit containing all required accessories and consumable.

Arsenic occurs in many minerals, usually in combination with sulfur and metals, but also as a pure elemental crystal (Semedely et.al, 2004). It is highly toxic in its inorganic form. People are exposed to elevated levels of inorganic arsenic through drinking contaminated water, using contaminated water in food preparation and irrigation of food crops, industrial processes, eating contaminated food and smoking tobacco. Long-term exposure to inorganic arsenic, mainly through drinking-water and food, can lead to chronic arsenic poisoning. Skin lesions and skin cancer are the most characteristic effects (WHO 2011, fourth edition). Almost all arsenic is found in the inorganic form and it is what we come across in soil, rocks, groundwater, surface water, and industrial waste. Organic arsenic, on the other hand, can be found in pesticides, animals, plants, and fish. Humans have used arsenic for a very long time (Wild, LM 2014).

The most current concerns regarding arsenic include natural sources contaminating drinking water and its absorption in some foods (e.g. rice and lettuce) that we may consume. Under United States drinking water law, water from public systems must be tested for arsenic. In the U.S. the **maximum contamination level** (MCL) for arsenic that is allowed in drinking water as established by the US Environmental Protection Agency (US EPA) is **10 parts per billion** (. Harding 1983).

The current recommended limit of arsenic in drinking-water is $10\mu g/L$ (WHO 2004), although this guideline value is designated as provisional because of practical difficulties in removing arsenic from drinking-water (Drinking-Water Quality; WHO, 2004). However, the provisional guideline value of arsenic in drinking water in Nepal is $50\mu g/L$ (Neku and Tandukar,2003).

The exact number of tube wells in Nepal is still unknown. But a very rough estimation shows that there are more than 400,000 tube wells. The actual scenario of the arsenic contamination in Nepal will not be reflected unless most of all tube wells are tested for arsenic. So far only 25058 tube wells have been tested and the Department of Water Supply and Sewerage/UNICEF had plan of testing about 200,000 tube wells in the most effected ten Terai districts. The first manifestation shows that Nawalparasi is the most affected district in Nepal (WSSDO, Nawalparasi 2003). Rautahat, Kailali, and Siraha are other seriously affected districts.

Materials and Methods

Research Design

This study attempts to determine the concentration of iron in groundwater by arsenometer technique at Attariya, Kailali. The main motto of the research is to identify the amount of arsenic in underground water. Samples were collected from Attariya of kailali district. There are no other relevant water resources for the daily uses of water so people in this area are totally dependent on groundwater for domestic and other purposes. This study is descriptive and experimental in nature.

Methodology adopted for arsenic determination

Arsenator Digital Arsenic Test Kit method is adopted in our project work. Arsenator is a digital photometer, which gives readings of arsenic levels within the range of 2 to 100 microgram per litre (μ g/litre) of water. The Arsenator kit solves the complex problem of how to measure Arsenic in the field accurately and safely. Built around an unique tri-filter assembly, the Palintest Arsenator simplifies and improves field arsenic testing to exceed the WHO guideline value of 10 ppb in drinking water. Sensitivity down to 2 parts per billion - unique in afield analysis system 3-stage filter system increases sensitivity, removes interference from Sulfide and protects the operator. Comprehensive field kit containing all required accessories and consumable.

Required material and reagents

All the material and reagent required for the project are listed below:

- 1. Graduated flask
- 2. Tri-filter Arsenic trap(bung)
- 3. Hydrogen sulphide removal flask
- 4. Red filter slide (removal).
- 5. Black filter slide (detection).
- 6. Arsenator.
- 7. Filter paper (detection), labeled black.
- 8. Filter paper (removal), labeled red.
- 9. Tablet A_1 tablet A_2
- 10. Dilution tube.
- 11. Cleaning brush
- 12. Color chart.
- 13. Waste disposal bag, gloves and forceps.

Sampling and storage

Water samples were collected from different household in Attariya. Those samples were taken from hand well with different depths around the whole locality. First of all, the sample bottle were rinsed with acid and washed with reagent water many times. The hand pump was pumped for 6 minutes normally then water is collected in sample bottles. The sample bottles were made air tight.

Instrumentation

In the instrumentation, we need different stage and are given below:

STAGE-1 Loading device

- 1. Take one hydrogen sulphide removal filter and insert into the bottom end of the bung.
- 2. Take red filter site and open.
- 3. Take one filter paper from red labeled pot, use forceps or gloves to insert into position ensuring the filter paper is evenly covering the hole. Then firmly close slide holder, taking care to locate the pins in the slide holder correctly.
- 4. Get bung device and only insert the red filter slide into the top slot.
- 5. Take arsenic filter slide and open
- 6. Take one filter paper from the black labeled pot, use forceps or gloves to insert into position.

STAGE-2 Calibrating the arsenator

- 1. Take Arsenator and press any key to switch on. this will then say insert slide
- 2. Take the loaded black filter slide. You will use for analysis, them insert into the arsenator.
- 3. Them arsenator will instruct to remove slide, once slide is removed this then instruct the run test, which automatically activates timer on the arsenator.
- 4. Remove the black filters slide from the arsenator and insert into the bottom slot of the bung.

STAGE-3 Sample preparation

- 1. Take flask and fill to the 50ml line with sample water and place on a firm place.
- 2. Take A_1 powder sachet and pure into the flask.
- 3. Pickup up loaded bung device and check filter slides are fully slide into the bung.
- 4. Take tablet A₂ from container and drop carefully into the flask, sample will start fizz.
- 5. Immediately push down device firmly into the flask. Wait approximately 20 minutes. After 20 minutes remove black slide and proceed to stage 4.

STAGE-4 Arsenic measurement

- 1. Remove black filter slide from bung device.
- 2. Record corresponding color, match from color chart to obtain result in µg/L (ppb)
- 3. If test result reads above 500µg/L (ppb) use dilution tube with de- ionized water and convert accordingly. Then go back to stage 1 and do test again.

STAGE-5 Using the Arsenator

- 1. If visual reading is less than100 µg/L (ppb), insert black filter slide into arsenator.
- 2. Observe and record result in µg/L. If preferred record in ppb i.e. µg/L=ppb
- 3. Finally open both filter slides and remove filter paper from slide and holders and dispose in waste bag provided.

Result and Discussion

From this study, the concentration of arsenic in groundwater of Attariya was successfully determined by arsenometer kit. Our surveys and sparse literature confirm arsenic in Attariya groundwater appears low, and well within the national $50\mu g/l$ standard applied. Most groundwater supplies were below the $10 \mu g/l$ WHO drinking-water guideline, with marginal breaching in one alluvial-aquifer literature survey, and our survey samples containing geothermal groundwater contributions. Further research is needed to confirm human-health risks are low; including, increased monitoring of the great many hand-pumped supplies, and assessing hydrobiogeochemical controls on the higher arsenic concentrations found.

S.N	Sample	Depth(feet)	Sample with arsenic concentration(ppb)
1	S_1	50	10.1
2	S_2	60	5.6
3	S ₃	80	2.2
4	S4	100	1.6
5	S5	150	0.98

Table 1. Concentration of Arsenic in underground water at different depth

The five sample collected from different households at different depth shows that the concentration of Arsenic in Attariya area is almost under the value recommended by WHO expect sample S1. The sample S1 taken from depth of 50 feet gives 10.1ppb concentration of Arsenic. Similarly, concentration of Arsenic from the sample S2,S3,S4 and S5 taken from depth 60ft,80ft,100ft and 150ft gives 5.6ppb,2.2ppb,1.6ppb and 0.98ppb respectively.



Fig-Plot of depth vs concentration

This bar graph shows the variation of arsenic concentration in ppb with depth of hand pump in feet. The trend in graph concludes that as depth of hand pump increases concentration of arsenic goes on decreasing. The highest amount of arsenic, which is slight above the value given by WHO, was found at depth 50feet and lowest value at depth 150feet in our research.

Conclusion and Recommendation

Water sample collected from different depth hand well contain arsenic almost below value recommended by WHO except one sample which is of low depth. The maximum value was found to be 10.1ppb in underground water of depth 50ft and lowest value was found to be 0.98ppb among collected sample. This experimental research concludes that water from hand well above 50ft depth is safe for drinking and other purposes in context of Nepal until other source of drinking water is available. A tube well designated, as safe upon one time testing in an affected area cannot be presumed permanently safe.

Water from ground water are being used for drinking, washing, sanitation irrigation and so on. Hence, it is necessary to examine water quality by concern body of government. It is essential to put the hand pump in higher depth by the local for pure and safe drinking water. For that, awareness program should be conducted in the locality about the hazards of heavy metals and benefits of higher depth hand pumps which gives water with low concentration of heavy metals ions. Every field kits should be checked for their better performances. For this purpose, establishment of reference laboratory is urgent. Every new tube well should be constructed only after the test of arsenic. It is necessary to seal the highly contaminated hand pumps to protect the non contaminated aquifers. Hence, to determine the cause of changing arsenic concentration with respect to time it need further investigation in hydrogeology, geochemistry and geo-hydrodynamics of ground water of the hotspot areas. Research on removal options should be carried out by local bodies.

Acknowledgement

We would like to acknowledge Mrs. Krishna Chataut, Assistant Chemist, Water supply and sanitation office, Dhangadhi, Kailali for providing necessary laboratory facility.

References

- Ahmed, K. M., et al. (1998) Mechanism of arsenic release to groundwater: geochemical and mineralogical evidence. In International Conference on Arsenic Pollution of Groundwater in Bangladesh: Causes, Effects and Remedies, 8-12.
- Bhattarai, P., Bohara, K., ssand Pokhrel, M.(2014). Adsorptive Removal of Arsenic from aqueous Solution. Journal of Institute of Science and Technology, 2014, 19(1):150-154.
- Das, D., et al. (1995) Arsenic in groundwater in six districts of West Bengal, India: the biggest arsenic calamity in the world, Part 2. Arsenic concentration in drinking water. hair, nails, urine, skin-scale and liver tissue (biopsy) of the affected people . Analyst 120, 917-924.
- Farmer, J. G. and Johnson L. R. (1990). Assessment of occupational exposure to inorganic arsenic based on urinary concentrations and speciation of arsenic. Br. J. Ind. Med. 42, 342-348
- George, CM., Zheng, Y., Graziano, JH., Rasul, SB., Hossain, Z., Mey, JL., and Van Geen, A (2012). Evaluation of an arsenic test kit for rapid well screening in Bangladesh. Environ. Sci. Technol. 46(20): 11213-11219. http://dx.doi.org/10.1021/es300253p Hach (2015) EZ arsenic high range test kit.

Guidelines for Drinking-Water Quality(1993). World Health Organization: Geneva, Switzerland.

Guidelines Drinking-Water Quality(2004). World Health Organization: Geneva, Switzerland.

- Harding, B. (1983). Arsenic: Industrial, Biomedical, Environmental Perspectives (eds Lederer, W. H. and Fensterheim, R. J.), Van Nostrand Reinhold, New York, 203-209.
- IARC (2004). Some Drinking Water Disinfectants and Contaminants, including Arsenic. Monograph, vol. 84. Lyon, France: IARC, 512.
- Korte, N.E., Fernando, Q. (1991). A review of arsenic (III) in groundwater. Crit. Rev. Environ. Contr., 21, 1-39.
- Kumaresan, M., Riyazuddin, P.(2001). Overview of speciation chemistry of arsenic. Curr. Sci., 80, 837-846.
- Momodu, M.A and Analycora, C.A. (2010). Heavy metal contamination of ground water the surlier case study. Research journal environmental and earth science, 2(1),29-43.
- Mowat, F.(1967) The Polar Passion: The Quest for the North Pole; McClelland and Stewart Limited: Toronto, Canada.
- Neku, A., Tandukar, N.(2003). An overview of arsenic contamination of ground water in Nepal and its removal at household level. Journal de Physique : proceedings 107:941-944, EDP Sciences.
- Prakash, S. and Verma, A. (2021). Arsenic: It's toxicity and impact on human health. International Journal of Biological Innovation, 3(1), 38-47.
- WHO, 1958. International Standards for Drinking-water
- WHO, 1963. International Standards for Drinking-water, Second edition, vol. 3
- WHO, 1993. Guidelines for drinking-water quality, second edition, vol. 1.
- WHO/UNICEF (2010). Report of the WHO/UNICEF joint monitoring programme on water supply and sanitation New York and geneva.
- WHO (2011). WHO Guidelines for drinking-water quality, fourth edition.
- Wild, LM (2014). Groundwater quality and potential arsenic contamination from a geochemical perspective to bedrock geology in the Chikwawa district, Malawi. MSc Hydrogeology thesis (unpublished), Department of Civil and Environmental Engineering, University of Strathclyde.
- WSSDO Nawalparasi, (2003). "Tube wells Data collection report, Nawalparasi 2003".
- Yu, C., Ahsan, H. (2004). Cancer burden from arsenic in drinking water in Bangladesh. A Journal of Public Health, 94,741–743.

A Desk Review of Foreign Aid in Nepal: Current Trends, Composition and Future Implications for Development

- Dharma Dev Bhatta

Associate Professor Aishwarya Multiple Campus Dhangadhi, Kailali Email : bhattadharmadev71@gmail.com

Article History : Received Date : 2079/05/20; Accepted Date : 2079/08/25

Abstract

The contribution of foreign aids in national development is applaudable in Nepalese context. Since 1950s, foreign aids have been providing assistance in social, economic and environmental sectors. However due to poor governance, the aid is not mobilized and utilized properly thus contributing towards sluggish development. Currently, the fifteenth five-year plan (2020- 2024) is in place with the theme of 'Prosperous Nepal, Happy Nepali." Rapid acceleration of economic, social and physical infrastructures is crucial in order to achieve this vision. This desk review aims to discuss the history of foreign aid, its current trends, compositions and future implications of foreign aid dependency in Nepal. As per the Development Cooperation Report, 2020/21 of the Ministry of Finance (MoF), Government of Nepal (GoN), the total amount of foreign direct investment received increased by 1.2% to 19.9 billion rupees, and net foreign direct investment inflows (FDI) increased by 0.2 percent to Rs.19.5 billion in 2020/21 in Nepal. In 2020/21, the energy sector (including hydro/electricity) received the major official development assistance (ODA), followed by road transportation and health. In the same fiscal year, Nepal received ODA equivalent to 24.41% of the national budget, out of which \$79.20 million (4.70% of the ODA) was designated for Covid-19 response and recovery. Nepal needs to focus on implementing progressive policies, strengthening human resource capacities, controlling corruption and political influence on developmental works in order to efficiently mobilize foreign aids as per the international commitments and framework of the law for national development.

Key Words: foreign aid, Cooperation Policy, Development Project

Introduction

Foreign aid, also known as international aid or official development assistance (ODA) is any financial, technical or logistic support provided by high income countries (HICs) to low-and-middle income countries (LMICs) for development purposes. HICs provides resources to LMICs a wide range of aid including loans, grants, investment funds, as well as technical assistance and resources like food, medicine and logistics to build physical infrastructures, and develop capacities.

LMICs that are struggling economically can use foreign aid to help develop their economy and improve various sectors such as health systems, education, environment, infrastructure, and other social areas (Mohan B. Dangi, 2021). Among various categories of foreign aid, development aid is generally provided over an extended period, while humanitarian aid is focused on addressing urgent needs of a country experiencing issues like natural disasters. Technical and capacity building aid aims to upgrade infrastructure and enhance a country's ability to enhance various systems within the country.

Nepal is dependent on foreign aid from external developmental partners (EDPs) which constitutes of foreign governments, multilateral agencies and international non-governmental organizations (INGOs) (Karkee & Comfort, 2016). Nepal receives foreign aids for important areas of national development such as infrastructural development,

education, healthcare and local development but due to poor governance, the aid is not mobilized and utilized properly thus contributing towards sluggish development (Karkee & Comfort, 2016; Mohan B. Dangi, 2021; Sharma, 2010).

Since 1950s to date, foreign aids have been a major contributor towards development of Nepal. It was also in the 1950s when the first national planning started in Nepal (National Planning Commission). The first five-year plan (1956-61) mainly focused on strengthening the infrastructural development in Nepal. The fifteenth plan (2020-2024) is in place with the theme of 'Prosperous Nepal, Happy Nepali' through acceleration of economic, social and physical infrastructures (National Planning Commission). This plan is the first phase of 25-year long term economic vision (2020-2044) targeting to achieve high income country category with the per capita income of USD 12,100 by 2044. The second phase of the long-term vision are based on achieving sustainable development goals (SDGs) and the third phase is based on achieving social, economic and environmental sustainability while also making the national economy self-reliant, independent and prosperous. Five-year plans and other national plans in Nepal are designed considering the foreign aids from major donor countries in advance due to inadequacy of national budget and incongruity in planning mechanism (Mohan B. Dangi, 2021). The Government of Nepal (GoN) has developed strategic plans and defined working policies to utilize the foreign aid for domestic capital formation according to national, provincial, and local level's needs and priorities (National Planning Commission).

In this desk review, the history of foreign aid in Nepal, the current trends, compositions and future implications have been discussed.

Methodology

A desk review was conducted using secondary data sources available in the form of peer reviewed articles and published reports. The major keywords used to search literatures were "foreign aid", "development assistance" and "Nepal". Search engines such as Google Scholar, Databases such as PubMed and web platform such as Research4Life were used to identify relevant published literatures. Relevant information for this review was also obtained by reviewing policy documents such as Development Cooperation Policy- 2014, Development Cooperation Report-2020/21, and International Development Cooperation Policy- 2019. A standard data extraction form was prepared and used for the purpose of this desk review. Data analysis was conducted in MS Excel and MS Word.

Result and discussion

The Colombo Plan, established in 1950, aimed to provide foreign aid for economic and social development in mainly Asia and Pacific countries. Nepal joined the Colombo Plan in 1952 and began receiving grants for human capital development through scholarship programs. Nepal received grants for various sectors such as agriculture, transport, infrastructure, hydropower, communications, education, health and industry. In the 1960s, Nepal also began receiving foreign aid and bilateral grants for development projects, with Japan as the largest donor. With the establishment of multilateral financial institutions and development cooperation funds from developed countries, the nature of foreign aid shifted, with loans starting to dominate grants. In the 1970s, "soft loans" became more common, and the World Bank and Asian Development Bank played a significant role in development planning and project management. The Nepal Aid Group was established in 1976 to coordinate aid from multiple and bilateral donors. A larger portion of foreign aid came in the form of grants during the 1980s, but the amount of net disbursement of official development assistance reached an average of \$200 million per annum, accounting for 7% of the country's Gross National Product (GNP).

The Foreign Aid Policy, 2002 was the first official guide to the government's strategies for utilizing external resources to support Nepal's development efforts (Ministry of Finance, 2002). It was later replaced by the Development Cooperation Policy of 2014, which aimed to align the country's foreign aid sector with changing

global aid philosophy, by readjusting its fundamentals (Ministry of Finance, 2014). International Development Cooperation Policy, 2019 is another foreign aid guiding policy in Nepal with a vision for optimum mobilization of development partners' capital and technology in national development efforts on the basis of national need and priority (Ministry of Finance, 2019). Its main objective is to mobilize international development assistance to fulfil the national aspiration of "Prosperous Nepal, Happy Nepali".

In Nepal, the Ministry of Finance (MoF) is responsible for concluding financing agreements with foreign donors and send them to the Province or Local level for implementation. The agreements will specify the amount of funding, interest rate and conditions of payment. The Province and Local level are responsible for implementing the programs and must use the funds according to the conditions stated in the agreement, and report on their expenditure and progress on a regular basis. Institutionalizing federalism in Nepal requires significant resources, for example, to establish lower levels of government, improve institutional capacity, construct infrastructure and boost economic activity.

In the fiscal year (FY) 2020/21, Nepal received 93.25% of its ODA from ten development partners (Ministry of Finance, 2021). The majority of this aid (73.05%), came from multilateral partners such as the World Bank, Asian Development Bank, European Union, United Nations, and GAVI, the Vaccine Alliance. Bilateral partners, including the United States, United Kingdom, India, Japan, and Germany, contributed to the remaining 26.95% of ODA (Ministry of Finance, 2021). In FY 2020/21, of the ODA disbursed, \$986.62 million (58.56%) was allocated for project/program support, \$509.99 million (30.27%) was allocated for budget support, \$115.89 million (6.88%) was allocated for humanitarian assistance, \$59.54 million (3.53%) was allocated for sector-wide approach, and the remaining \$12.62 million (0.75%) was allocated for other purposes (Ministry of Finance, 2021).

Altogether in 2020/21, Nepal received \$1684.67 million in ODA (which was 24.41% of the national budget) of which \$79.20 million was designated for Covid-19 response and recovery. The majority of this Covid-19 specific aid, \$10.21 million, came from newly created projects while the remaining came from existing ones (Ministry of Finance, 2021). Unlike the 2015 earthquake, the proportion of ODA in the national budget has not seen a significant increase despite the challenges posed by the pandemic. This indicates a positive trend towards reducing dependency on foreign aid, as the proportion has consistently remained below 30% (Ministry of Finance, 2021). The total amount of foreign direct investment received increased by 1.2% to 19.9 billion rupees, and net foreign direct investment can be a useful tool for promoting economic development, but it is important that the host country has appropriate policies and regulations in place to manage the potential negative effects (Ministry of Finance, 2021).

In 2020/21, the energy sector (including hydro/electricity) received the major ODA, followed by road transportation, health, education, reconstruction, local development, drinking water, agriculture, urban development, irrigation, and others. Although, the health sector received the third-highest amount of ODA in this period, a decrease by almost US\$ 100 million was seen as compared to the previous year. As specified in the 15th periodic plan, ODA was disbursed mostly for social development (\$643 millions) followed by infrastructure development (\$492 millions) and macroeconomic policy and economic development (\$450 millions) in 2020/21 (Ministry of Finance, 2021).

The Fifteenth Plan mentions that delay in implementation of the foreign-aided projects, lack of timely reimbursement, and a huge gap between aid commitment and realization are among the major reasons behind low mobilization of foreign aid in Nepal (National Planning Commission). Both donors and receivers must correct their actions for better outcomes, i.e., the donors must focus on quality of aids rather than the quantity and the receivers must focus on creating a favorable environment for transparent and efficient use of those resources (Easterly, 2003).

The recent pandemic and its impact on economy has led to increased need for foreign aids in LMICS due to reduced environment for investment and trade opportunities. However, the impact has caused budget deficits even in the HICs (Brown, 2021). Besides this, the COVID-19's impact brought poor clarity on aid flows in LMICS leading to

disparities in distribution of vaccines and other logistics. Also, focusing on the health sector alone to control the pandemic has led to collateral damages in other economic and social sector. Therefore, prioritizing sectors for foreign aid is crucial for effective allocation and to meet the basic needs and aspirations of the people.

Although foreign aids in Nepal have a positive effect on GDP, the relationship is not significant since the aid is mostly used for social and humanitarian cause rather than productive areas of economy (Christina Pradhan, 2020). Both efficient mobilization and utilization of foreign aids needs to be focused while also improving the taxation policies, widening tax base, and encouraging public private partnership in Nepal (National Planning Commission). Nepal needs to focus on implementing healthy public policies, strengthening human resource capacities, controlling corruption and political influence on developmental works in order to efficiently mobilize foreign aids as per the international commitments and framework of the law for national development (Christina Pradhan, 2020; Sharma, 2010).

Conclusion

The Government of Nepal is in the process of institutionalizing federalism which requires significant resources for capacity building, infrastructure development, and promoting economic activity. To effectively promote economic growth and prosperity, the systems for distributing aid to all levels of government must be strengthened. Until Nepal can achieve self-sufficiency through internal resources, it is important to use foreign aid effectively and prioritize it towards achieving the goals of the Sustainable Development Goals (SDGs) and other national priorities of development.

References

- Brown, S. (2021). The impact of COVID-19 on development assistance. *Int J*, 76(1), 42-54. <u>https://doi.org/10.1177/0020702020986888</u>
- Christina Pradhan, R. K. P. (2020). Impact of Foreign Aid on Economic Growth of Nepal: An Empirical Evidence. *International Journal of Finance and Banking Research*, 44-50. <u>https://doi.org/doi</u>: 10.11648/j.ijfbr.20200603.12
- Easterly, W. (2003). Can foreign aid buy growth? *Journal of Economic Perspectives*—, *Volume 17*, 23–48. https://doi.org/10.1257/089533003769204344
- Karkee, R., & Comfort, J. (2016). NGOs, Foreign Aid, and Development in Nepal. Front Public Health, 4, 177. <u>https://doi.org/10.3389/fpubh.2016.00177</u>
- Ministry of Finance, G. o. N. (2002). Foreign Aid Policy, 2002.
- Ministry of Finance, G. o. N. (2014). Development Cooperation Policy, 2014.
- Ministry of Finance, G. o. N. (2019). International Development Cooperation Policy, 2019.
- Ministry of Finance, G. o. N. (2021). *Development Cooperation Report, 2020/21*. M. o. F. International Economic Cooperation Coordination Division. <u>https://www.mof.gov.np/uploads/document/file/1661161034_1660713168_DCR%20Report%202021_7</u> 2.pdf
- Mohan B. Dangi, E. S., John J. Boland, Ram P. Chaudhary. (2021). Quest for development: An examination of more than a half-century of national planning and foreign aid practice in Nepal. Sustainable Futures, 3. https://doi.org/https://doi.org/10.1016/j.sftr.2021.100051
- National Planning Commission, G. o. N. *The Fifteenth Plan (Fiscal Year 2019/20 2023/24)*. Retrieved from https://npc.gov.np/images/category/15th_plan_English_Version.pdf
- Sharma, S. P. (2010). Politics and corruption mar health care in Nepal. *Lancet*, 375(9731), 2063-2064. https://doi.org/10.1016/s0140-6736(10)60945-2

Determinants of Herpetofaunal Diversity in a Threatened Wetland Ecosystem: A Case Study of the Ramaroshan Wetland Complex, Western Nepal

Janaki Paudel ^{1,†}, Laxman Khanal ^{1,*,†}, Naresh Pandey ¹, Laxmi Prasad Upadhyaya ¹, Chandra Bahadur Sunar ¹, Bina Thapa ², Chet Raj Bhatta ³, Ramesh Raj Pant ² and Randall C. Kyes ⁴

- ¹ Central Department of Zoology, Institute of Science and Technology, Tribhuvan University, Kirtipur, Kathmandu 44618, Nepal
- ² Central Department of Environmental Science, Institute of Science and Technology, Tribhuvan University, Kirtipur, Kathmandu 44618, Nepal
- ³ Aishwarya Multiple Campus, Tribhuvan University, Dhangadhi 10901, Nepal
- ⁴ Departments of Psychology, Global Health, and Anthropology, Center for Global Field Study, and Washington National Primate Research Center, University of Washington, Seattle, WA 98195, USA
- * Correspondence: lkhanal@cdztu.edu.np
- † T h e s e authors contributed equally to th

Simple Summary

Wetlands of mid-hills and lesser Himalaya in Nepal are highly threatened due to climate change and human encroachment. This study assessed the change in total surface coverage of water bodies in the Ramaroshan Wetland Complex of western Nepal over the last three decades and explored the diversity and environmental determinants of the resident herpetofauna by line transect sampling during September/October 2021. The wetland complex is threatened by a net loss of 16% in water coverage over the last three decades. Eleven species of herpetofauna (five amphibians and six reptiles) within five families of two orders were recorded in the study area. The area has low herpetofaunal diversity that indicates poor ecosystem health of the wetland complex. Therefore, we recommend immediate conservation and restoration initiatives to ensure the sustainability of the wetland.

Abstract

Wetlands are among the highly threatened ecosystems due to anthropogenic activities. The Ramaroshan Wetland Complex (RWC) of Achham District, Nepal is one of the high-altitude wetlands facing human induced degradation and loss. Herpetofauna are key bio-indicators of environmental health and habitat quality and are useful to assess habitat conditions of such threatened ecosystems. This study quantified the land use and land cover (LULC) change in the RWC and documented the diversity and distribution pattern of herpetofauna. The LULC in the area (13.94 Km²) was analyzed for 1989, 2000, 2010 and 2021 by supervised classification of remote sensing images. Surveys were conducted along 25 transects, each of 200 m in length and environmental variables were recorded for every observation of herpetofauna. The LULC analysis revealed an overall loss of 16% of the total water body between 1989 (0.25 Km²) and 2021 (0.21 Km²). Eleven species of herpetofauna (five amphibians and six reptiles) within five families and two orders (i.e., Anura and Squamata), were recorded with low diversity (H' = 1.88312) and evenness (E = 0.3642) indices. The herpetofauna had a hump-shaped distribution along the elevation gradient with the highest richness and abundance at 2300 m asl. Amphibian abundance decreased with increasing distance to nearest water sources, whereas reptile abundance increased. Amphibians were more abundant in agricultural field and marsh land,

whereas reptile abundance was higher around human settlements. Results indicate that the wetland area in the RWC is declining at an alarming rate and, in turn, might account for the low diversity and abundance of the herpetofauna.

Key Words: herpetofauna; land use and land cover; amphibians; reptiles; wetland4.0/). *Animals* **2023**, *13*, 135. https://doi.org/10.3390/ani13010135https://www.mdpi.com/journal/animals

Introduction

Wetlands are among Earth's most productive ecosystems. They play essential roles in regulating global climate, maintaining hydrologic cycles and blue carbon, protecting ecosystem diversity, disaster risk reduction and ensuring human wellbeing [1-4]. Despite their importance, wetlands are under threat due to their vulnerability and attractiveness to human development [5,6] and the majority have already undergone some form of degradation [7,8]. The primary pressures are not only habitat loss and degradation, but also reduced water inflow due to damming of rivers, deterioration of water quality due to excessive nutrient influx and organic matter resulting from factors, such as urbanization, industrial waste, agriculture, pollution and land reclamation [7,9,10]. Globally, the loss of natural wetlands averaged about 30% between 1970–2008, and the decline is accelerating annually [8,11].

Wetlands, with transitional characteristics of both terrestrial and aquatic habitats, har- bor high biological diversity that is disproportionate to the area and are therefore known as biodiversity hotspots [12,13]. Among all taxa, herpetofauna are highly sensitive and depend heavily on the diverse wetland for breeding, foraging and refugia in winter [14]. Globally, wetlands harbor about 43.4% of the world's herpetofaunal diversity [15]. However, several herpetofaunal species have already gone extinct or have suffered drastic reduction in their numbers due to degradation of wetland ecosystems [16–19]. Changes in availability and distribution of critical habitats, such as wetlands, result in the reduction in herpetofaunal diversity and abundance [20]. Biological indicators can be employed to obtain qualitative data to assess the ecological resources [21] and presence of herpetofauna are excellent candidates for indicator species of wetland health due to the dependence of amphibians on water and the habitat specialization of many reptiles [21]. Therefore, assessing the distribution of wetlands and monitoring its dynamic changes is of utmost importance.

Geospatial analysis of wetlands using remote sensing and GIS is one of the recent approaches for the assessment of wetland spatial and temporal distribution and its qual- ity [23,24]. Remote sensing images of fine spatial and hyperspectral resolution have been widely used in mapping wetlands [25,26]. Landsat collections (such as Landsat-5 TM, Landsat-7 ETM+ and Landsat-8 OLI) using geo-referenced images acquired by optical imagery are an effective and efficient means of studying wetland habitats [27]. Through these methods, it is possible to obtain an accurate landscape-scale assessment of wetland status and study its trends without having to conduct time-consuming and expensive fieldwork [28,29].

Nepal, a small landlocked Himalayan country that occupies only 0.003% of the world's area, has 10 sites designated as wetlands of international importance (Ramsar Sites) with a total surface area of 605.61 km². These sites are home for about 27% of the nationally threatened birds [30], 85% of endemic vertebrates [31] and 230 indigenous fish species [32]. Geographically, the wetlands of Nepal range from high-altitude to lowland. High-altitude wetlands, such as Gosainkunda, Gokyo, Rara and Phoksundo, provide provisioning ser- vices, such as freshwater, cultural services, such as tourism, spiritual and religious experi- ences. The mid-hills wetlands, such as- Mai Pokhari and Lake Clusters of Pokhara Valley, provide provisioning services, such as food and fuel. The lowland wetlands, such as Koshi Tappu, Jagadishpur, Beeshazari and Ghodaghodi, provide both cultural and provisioning services [33,34]. Despite their considerable significance for human and ecosystem support, the wetlands of Nepal are under tremendous anthropogenic pressure [35].

The Ramaroshan Wetland Complex (RWC), a landscape of 12 lakes and 18 meadows, is situated in western Nepal [36]. It is one of the potential Ramsar sites with natural and permanent water bodies [37] and biological diversity including globally threatened birds [38]. The area is facing considerable threats such as gulley erosion, over grazing and land conversion. Lakes, such as Lisse Daali and Geraha Lake, have been converted into grassland and cropland [36]. These natural and artificial factors have reduced the wetland habitat. Given these increasing pressures, a baseline study exploring the current status of the water bodies and biodiversity in the RWC is deemed essential. Management action plans that consider small vertebrates, such as herpetofauna, as biological indicators are crucial for the sustainability of the RWC. However, to date, a systematic study to document herpetofaunal diversity has yet to be conducted. Therefore, this research was conducted to

- (i) investigate the land use pattern and land cover change in the RWC,
- (ii) assess the herpetofaunal community structure in the RWC and (iii) examine the effects of environmental variables on the herpetofaunal community.

Materials and Methods

Study Area

This study was conducted in the Ramaroshan Wetland Complex (RWC, Figure 1), a mid-hill rural wetland extending from 1401 m to 3792 m asl in Achham District of Sudur- pashchim Province, Nepal. The RWC consists of 12 lakes and 18 meadows interconnecting with each other forming a complex [37]. The only outlet of the lake water is Kailash River [39]. The RWC lies 42 km from Mangalsen, the district headquarters of Achham District. Vegetation in the area is characterized by mid-hills flora, such as Rhododendron (*Rhododendron* spp.), Chestnut (*Castanopsis indica*), Needle-wood (*Schima walichii*), Alder (*Alnus nepalensis*), Pine (*Pinus roxburghii*), Himalayan yew (*Taxus wallichiana*), Moso bamboo (*Phyllostachys pubescens*), Lantana (*Lantana camara*), Mugwort (*Artemisia vulgaris*) and yellow Himalayan raspberry (*Rubus ellipticus*). Major fauna of the area includes Himalayan monal (*Lophophorous impejanus*), Kalij pheasant (*Lophura leucomelanos*), Mallard (*Anas platyrhynchos*), Black-headed jay (*Garrulus lanceolatus*) (a bird that has been recorded only in the far-western region of Nepal), Himalayan black bear (*Ursus thibetanus*), Musk deer (*Moschus chrysogaster*), Leopard (*Panthera pardus*), etc.



Figure 1. Map of the study area. (A) Map of Nepal showing Achham District; (B) Map of Achham District showing Ramaroshan Rural Municipality; and (C) Map of Ramaroshan Rural Municipality showing transects around the Ramaroshan Wetland Complex.

Herpetofaunal Survey

A reconnaissance survey was conducted during the third week of May 2021 in order to identify the wetlands and herpetofaunal survey areas. A line transect survey was conducted for the collection of data in and around the major wetlands of Ramaroshan area from 27 September to 07 October 2021. A total of 25 transects, each of 200 m lengths, were established along the walking trails in the area. The elevation of the survey ranged between 1400 m asl and 3800 m asl. Transect sampling was conducted daily along various transects from 4 PM to 10 PM. Every individual encountered within a distance of two meters on either side of a transect was captured, identified and counted (see below). Additionally, opportunistic captures and records were conducted throughout the day. Transects at each elevation band were surveyed over lakes, streams, forests, settlement areas and croplands whenever possible.

While walking along a transect, every encountered individual was photographed on the spot, collected in a ventilated jar, then identified using the field guide book "Herpeto- fauna of Nepal: A Conservation Companion" [40]. After identification, specimens were marked with a permanent marker to avoid repetition and released back. Unidentified individuals were euthanized with ethanol and tagged on the hind leg. All the tagged specimens were kept in absolute ethanol in a closed bottle and transferred to the laboratory of the Central Department of Zoology, Tribhuvan University for subsequent identification by experts with the aid of samples and photographs. Environmental variables, such as slope, aspect, distance to water, distance to human settlement, elevation and habitat type, were noted for each observation of the herpetofauna (Table 1).

Parameter	Variables	Description	Codes Used
Habitat	Habitat type	Forest, marsh land, agricultural land, grassland, human habitat	F, ML, AL, G,
	Nearest distance to water resource	Euclidean distance measured from sampling location to the closest waterhole	DW
Topography	Elevation	Elevation (meter) above sea level	Elev
Disturbance human	Nearest distance to settlement	Euclidean distance measured from sampling points to nearest human settlements	DH

Table 1. Environmental variables recorded in the field and their description.

Note: F = Forest, ML = Marsh Land, AL = Agricultural Land, G = Grassland, HH = Human Habitat, DW = Nearest distance to water resource, Elev = Elevation, DH = Nearest distance to human settlement.

1.1. Remote Sensing Data Acquisition and Land-Use Classification

Landsat images from 1989, 2000, 2010 and 2021 were used to detect LULC change. The Landsat 4–5 TM (Thematic mapper) for 1989, Landsat 7-ETM (Enhanced Thematic Mapper) for 2000, Landsat 5-TM for 2010 and Landsat 8-OLI (Operational Land Images) for 2021 with same spatial resolution (30 m) and with images taken during the first week of March were downloaded from United States Geological Survey (USGS) geoportal (https://glovis.usgs.gov/app, accessed on 15 July 2022). The entire Landsat images consisted of <10% of cloud cover. A total area of 13.94 km² of the Ramaroshan Rural Municipality within a polygon of latitude 29.250899⁰, 29.251255⁰, 29.223386⁰, 29.222702⁰ and longitude 81.445734⁰, 81.489519⁰, 81.489888⁰ and 81.445793⁰ was selected for the classification. Data sets were digitized by the ArcGIS tool, then land cover was categorized into five land-use types: i.e., vegetation, grassland, water bodies, barren land and agricultural land

(Table 2). The supervised classification was performed following the methods employed by [41]. The signature classes or training samples were prepared from Google Earth map.

S.N.	Land Cover Types	Description
1	Water body	Lakes, marsh land, river
2	Barren land	Dry places, flood plains without vegetation, landslide and no vegetation areas
3	Grassland	Meadows and irregular bushes
4	Vegetation	Forested area, mixed forest type
5	Agricultural land	Crop (e.g., paddy, maize, millet, etc.) cultivated land

Table 2. Major land use and land cover types classified in the RWC.

Accuracy assessment is an important part of any classification project. It compares the classified image to another data source that is considered to be accurate or ground truth data. Ground truth points were collected during the field work. Accuracy assessment was performed on the resulting classified imagery using error matrix and Kappa index to test the precision and accuracy of imagery and comparing them with actual points from the field. Ground truthing points (n = 30) were used as a reference for the accuracy assessment of the classified images of 2021. For Landsat images of 1989, 2000 and 2010, 90 stratified random points were generated and compared with the reference from Google Earth. The user's accuracy, producer accuracy and overall accuracy were obtained from the error matrix. Kappa coefficient is the statistical evaluation of the classified map's accuracy and is used to determine how precisely the agreements between model prediction and reality match [42]. The Kappa coefficient ranges from 0 to 1. A coefficient close to zero indicates no agreements, values between 0–0.2 denote mild agreements, 0.21-0.40 indicate fair agreements, 0.41-0.60 indicate moderate agreements, 0.61-0.80 indicate satisfactory or good agreements and 0.81-1 indicate almost perfect accord [43]. Accuracy of the classified images were calculated using following formulas:

Llagra Aggurgay f	– Number of correctly classified pixels
Users Accuracy j	Total number of classified pixels in that category (Row Total) ~ 100
Producer Accuracy	= Number of correctly classified pixels
	lotal number of reference pixels in that category (Column lotal)
Overall Accuracy	$=$ $\frac{\text{Total number of correctly classified pixel (Diagonal)}}{100} \times 100$
5	Total number of Reference Pixels
Cappa Coefficient	$= \frac{(TS \times TCS) - \sum (Column Total \times Row Total)}{(TS \times TCS) - \sum (Column Total \times Row Total)}$
Suppa Southerent	TS ² -∑(Column Total×Row Total)

Where, TS = Total Sample and TCS = Total Corrected Sample

1.2. Herpetofaunal Data Analysis

The Shannon–Wiener diversity index (H') and evenness index (E) of the herpetofauna were calculated using PAST version 3.5 [44]. The generalized linear model (GLM) was performed to test the effects of environmental

variables on the abundance of herpetofauna using R-studio [45]. A redundancy analysis (RDA) was employed in CANOCO version 4.5 [46] to examine association between distribution of herpetofauna and environmental variables. Final results were presented in the form of a biplot with a Monte Carlo permuta- tion test by using 499 permutations to identify which variables had a significant effect on the distribution of amphibians and reptiles in study area.

Results and Discussion

Land Use and Land Cover Change in the RWC

The land use and land cover classification of the RWC from 1989 to 2021 showed variation in the land-use classes over the time. The overall accuracies of the classified images for 1989, 2000, 2010 and 2021 were 70%, 80%, 83.33% and 86.66%, respectively (Supplementary Table S1). The user's accuracy ranged from 50% to 83.33% in 1989, 60% to 85.71% in 2000, 66.66% to 89.97% in 2010 and 71.42% to 91% in 2021. The kappa coefficients for the years 1989, 2000, 2010 and 2021 were 0.62, 0.74, 0.79 and 0.83 respectively.

The results of the analysis of the 1989 image (Figure 2, Table 3) shows that vegetation, barren land and grassland dominated the landscape with 36.7%, 31.6% and 26.6%, respec- tively. Compared to 1989, analysis of the 2000 image showed that vegetation and barren land remained constant, whereas the water bodies decreased by 0.1% and the agricultural land increased by 0.5% of the total study area. Similarly, the 2010 image, when compared to that of 2000, showed that vegetation and agricultural land increased, grassland remained almost constant, and barren land and water bodies decreased. Finally, from 2010 to 2021, vegetation and agricultural land increased; barren land and grassland continued to decrease and water bodies showed a modest increase. However, there was a net decrease in water bodies from 1989 (0.25 km²) to 2021 (0.21 km²) that accounted for a 16% loss.



Figure 2. Patterns of land use and land cover from 1989–2021. (A) LULC of the RWC for 1989;
(B) LULC of the RWC for 2000; (C) LULC of the RWC for 2010; and (D) LULC of the RWC for 2020.

	Year								
Land Use and Land	1989		2000		2010		2021		Net
Cover Classes	Area (Km ²)	Area (%)	Area (Km ²)	Area (%)	Area (Km ²)	Area (%)	Area (Km²)	Area (%)	Change
Agricultural land	0.46	3.3	0.53	3.8	0.76	5.5	0.78	5.6	Increased
Barren land	4.40	31.6	4.39	31.5	4.08	29.2	4.07	29.2	Decreased
Grassland	3.71	26.6	3.68	26.4	3.61	25.9	3.49	25.0	Decreased
Vegetation	5.12	36.7	5.10	36.6	5.30	38.0	5.39	38.7	Increased
Water body	0.25	1.8	0.24	1.7	0.19	1.4	0.21	1.5	Decreased
Total	13.94	100	13.94	100	13.94	100	13.94	100	

Table 3. Spatial extent of land cover classes in RWC.

Using the initial land cover data (from 1989) as a baseline, the patterns of LULC change analysis demonstrated the direction of land cover changes. Classified images of the RWC showed a 16% decrease in water bodies; perhaps due to overexploitation of the area by the local people. The lake named Dallena in the RWC was converted to farmland by the local people during Maoist insurgency period from 1995 to 2005/2006. The largest decrease by proportion to 1989 is the grassland coverage likely due to overgrazing, which has a significant environmental impact on the soil's preservation, diversity and water holding capacity [47–49]. The increase in agricultural land may be due to the return of the local people who had been displaced by severe flooding of the Kailash River in the 2020. The degradation of a water body necessitates immediate management action, especially given the ongoing climate change-related droughts that are occurring worldwide [50]. On account of people moving from rural to urban areas to seek a higher quality of life with greater economic opportunities, the cropland left behind gradually turns into forest [51] albeit lower quality, secondary forest. The observed decrease in barren area in the RWC might be due to the replacement by forest. The grassland also showed a progressive reduction, which may be because locals use the grassland in the mountains as pasture land [52]. Interestingly, the coverage of vegetation in the RWC area showed an increase in 2021, which can be attributed to the commendable support from the Ramaroshan Tourism Board and the local government.

1.3. Herpetofaunal Community Structure of the RWC

A total of 179 individuals of herpetofauna belonging to 11 species (5 amphibians and 5 reptiles) within five families of two orders were recorded in the study area (Table 4, Supplementary Figure S1). All five species of amphibians belonged to order Anura and the reptiles belonged to the order Squamata. Dicroglossidae was the most dominant family consisting of three species followed by Bufonidae consisting of two species. The relative abundance of *Duttaphrynus melanostictus* was the highest (0.284) and that of *Elaphe hodgsonii* and *Nanorana rostandi* was the least (0.005).

 Table 4.
 List of herpetofaunal species recorded in the RWC with their relative abundance and species code used for redundancy analysis.

Taxa	Species	Family	Order	Relative Abundance	Code
Amphibians	Duttaphrynus	Bufonidae	Anura	0.201	H1
	Duttaphrynus melanostictus	Bufonidae	Anura	0.284	H2
	Nanorana minica	Dicroglossidae	Anura	0.067	H3

Taxa	Species	Family	Order	Relative Abundance	Code
	Nanorana polunini	Dicroglossidae	Anura	0.106	H4
	Nanorana rostandi	Dicroglossidae	Anura	0.005	H5
Reptiles	Calotes versicolar	Agamidae	Squamata	0.072	H9
	Laudakia tuberculata	Agamidae	Squamata	0.178	H8
	Amphiesma platyceps	Colubridae	Squamata	0.011	H7
	Elaphe hodgsonii	Colubridae	Squamata	0.005	H6
	Asymblepharus himalayanus	Scincidae	Squamata	0.016	H10
	Asymblepharus ladacensis	Scincidae	Squamata	0.050	H11

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The overall Shannon–Weiner diversity index (H') of herpetofauna was 1.88312 and the evenness index (E) was 0.3642. The diversity index (H') and evenness index for amphibians were 1.2892 and 0.6211, respectively and for the reptiles, 1.2825 and 0.7213, respectively. The species accumulation curve reached an asymptote (Figure 3A), indicating that there were no prospects of finding new species even with increased sampling efforts [53]. The presence of 179 individuals of 11 species (5 amphibians and 6 reptiles) in this field study implies that the herpetofaunal diversity is likely impacted by the time of study period (post monsoon). Due to the minimal rainfall during the post-monsoon season, species discovery may have been limited. Similar findings of reduced herpetofaunal diversity in pre-monsoon season have been noted by others [54]. Among the 11 species of herpetofauna identified, *Duttaphrynus melanostictus* was the most abundant species in the area. However, according to local people, the area also has tree frogs which were not observed during this study. The family Dicroglossidae was largest for amphibians and the family Scincidae was largest for reptiles. *Calotes versicolar* was recorded at an altitude of 2540 m asl in this study. Previous reports have identified this species in a variety of terrestrial environments below 2000 m asl [40].



Figure 3. Herpetofaunal community structure in different habitats of the RWC; (A) Species accu- mulation curve of herpetofauna; (B) The abundance of amphibians in different habitats; (C) The abundance of reptiles in different habitats.

Habitat types determine herpetofaunal species diversity and community structure [55]. The highest abundance of amphibians was observed in agricultural land (49%) followed by the marsh land (Figure 3B). This may be because amphibians tend to congregate around water sources where there is a greater abundance prey. Notably, however, multiple studies have demonstrated that agricultural contamination (e.g., pesticides and insecticides) and habitat loss owing to expansion of road systems are key drivers in global amphibian decrease [56,57]. Limited use of pesticides by the local subsistence farmers might have provided suitable habitats for the amphibians in the RWC. Higher diversity and lesser conservation risks were reported for amphibians in the agricultural fields of the Democratic People's Republic of Korea [58]. The grassland had lowest abundance of amphibians, probably due to limited kinds of food options and less diverse habitat. Reptiles were most abundant near the human settlement (Figure 3C). Agamids had higher relative abundance and such habitat generalist reptiles have been reported to thrive well in and around human settlements [59,60]. The higher abundance of reptiles in human habitat, grassland and agricultural areas of the RWC might be associated with availability of higher structural diversity, opportunity for higher insolation and escape than in dense forest or marsh land areas.

1.4. Effects of Environmental Variables on Abundance of Herpetofauna

This study revealed a hump-shaped distribution of the herpetofauna along the elevation gradient of the RWC (Figure 4). Herpetofaunal species richness and abundance gradually increased with increasing elevation that peaked at 2201–2400 m asl and dropped off beyond that. The hump shaped relationship between species richness and elevation in this study might be because the RWC's major wetlands are situated at 2100–2500 m asl, providing both wet and dry conditions for herpetofaunal assemblage which is fundamental for their various life stages. Additionally, many amphibians have relocated their ranges towards higher elevations due to the growing effects of global warming and climate change [61,62]. Similar altitudinal richness patterns have been documented on the diversity of plants, frogs, lizards, snakes, birds and small mammals along elevation gradients of Himalaya and adjoining mountain rages [63–69]. However, a monotonic decline in amphibian richness and abundance also has been recorded from the eastern Nepal Himalayas [70] which could be due to a majority of recorded amphibians inhabiting a narrow elevational range.



Figure 4. Herpetofauna species richness and abundance along elevational gradients in the RWC.

Amphibians showed a statistically significant negative association with distance to wa- ter source (Table 4), suggesting that amphibian abundance tends to decline with increasing distance from water bodies. Amphibians are associated with moist environments [71,72]. As a proxy for water availability, soil moisture is a crucial predictor of amphibian oc- currence [73]. The reptile abundance was positively linked with distance to water and negatively associated with elevation (Table 5). Greater species richness of lizards at higher elevations in southern latitudes have been reported because high elevations in southern latitudes experience exceptional variation in seasonal temperatures and soil moisture, which seem to benefit the physiological needs of lizards [74]. However, the cool, dry higher elevations of the Himalayan region support a smaller diversity of reptiles [54,72]. Distance to human settlements had a significant effect on herpetofauna in the RWC where both amphibian and reptile species were associated with distance from the nearest human settlement. Of all the 11 species of herpetofauna, *L. tuberculata* was found most frequently in the human habitats, such as on the roofs of houses and in holes in houses. This may be due to a greater availability of prey in and around the human habitat.

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Herpetofauna	Variables	Estimate	SE	Z	р
Amphibians	Intercept	1.1223	1.9323	0.581	0.561
	Elevation	0.0005	0.0008	0.673	0.501
	Nearest distance to water	-0.0097	0.0023	-4.231	$2.32 \times 10^{-5} *$
	Nearest distance to settlement	0.0001	0.0001	1.407	0.160
Reptiles	Intercept	4.0049	1.4716	2.752	0.0059 *
	Elevation	-0.0015	0.0006	-2.430	0.0150 *
	Nearest distance to water	0.0005	0.0001	3.466	0.0005 *
	Nearest distance to settlement	-0.0005	0.0004	-1.278	0.2013

Table 5. Summary of GLM showing the effects of environmental variables on the abundance of herpetofauna in the RWC.

Note: ***** = statistically significant.

The relation of environmental variables on the species richness of amphibians was tested for selected habitat types including agricultural land, forest, human habitat and marsh land. A Monte Carlo permutation test of significance of all the reduced model axes revealed a significance preference of the amphibian species (Trace = 0.384, F = 3.118 and p = 0.0120) to different habitat types and environmental variables with marsh land showing the greatest association. (Figure 5A). Similarly, reptilian species also showed a significant preference (Trace = 0.448, F = 1.967 and p = 0.05) with the greatest associations with forest, human habitat and grassland (Figure 5B). The RDA ordination diagram showed that *Duttaphrynus himalayanus* was more associated with human habitat. *D. melanostictus* was associated with agricultural land. *Polunini paa, Nanorana minica* and *Nanorana rostandi* were more associated with marsh land. *Elaphe hodgsonii* was more associated with the forest area. *Laudakia tuberculata* and *Asymblepharus ladacensis* were more associated with grassland. Among the habitat variables, amphibian and reptilian abundances had higher associations with elevation and distance to human habitat, respectively.



Figure 5. RDA ordination diagram (biplot) showing the association of environmental variables with the herpetofauna in the RWC; (A) Amphibians; and, (B) Reptiles. Note: F = Forest, ML = Marsh Land, AL = Agricultural Land, G = Grassland, HH = Human Habitat, DW = Nearest distance to water resource, Elev = Elevation, DH = Nearest distance to human settlement.

The research had some limitations with respect to the study period. Due to inaccessi - bility of the area during the monsoon season, field surveys were conducted only during the post-monsoon period. Therefore, the lower diversity of herpetofauna might be associated with the limited survey period. Nevertheless, the data on the herpetofauna and their habi- tat are crucial and will serve as a baseline standard for any further research in the region. Due to its varied habitat and anthropogenic activities altering the land use pattern and threatening the ecosystem, the biodiversity in the RWC demands immediate conservation initiatives. An extensive herpetofaunal survey covering all seasons is important for a more complete assessment and will play a critical role in developing comprehensive baseline measures and implementing conservation action in the RWC.

Conclusions

This study revealed that the LULC change around the RWC is the result of human encroachment and the growing demand for settlement, development and agriculture expan- sion. The ecosystem is threatened with a 16% loss in wetland area from 1989 to 2021, with corresponding low diversity of herpetofauna—an important indicator species of ecosystem health. Amphibians depicted strong association with marsh land and their abundance decreased with an increase in distance to water sources. Reptiles showed robust association with forest, human settlement and grassland and had higher abundance further from wetlands. Owing to the anthropogenic activities altering the land use pattern and threat- ening the ecosystem, we recommend immediate steps be taken to implement biodiversity conservation initiatives. The findings of this study provide important baseline data needed to design effective conservation and management strategies of the threatened wetlands.

Supplementary Materials: The following supporting information can be downloaded at: https:

//www.mdpi.com/article/10.3390/ani13010135/s1, Table S1. Accuracy assessment of the classified images. Figure S1. Photographs of herpetofauna recorded from the Ramaroshan Wetland Complex, Achham District, Nepal.

Author Contributions: Conceptualization, L.K.; methodology, L.K., J.P., N.P. and L.P.U.; software,

L.K. and J.P.; formal analysis, J.P.; resources, L.K.; writing—original draft preparation, J.P. and L.K.; writing—review and editing, N.P., B.T., C.B.S., L.P.U., R.R.P., C.R.B. and R.C.K.; supervision, L.K.; funding acquisition, L.K. and C.R.B. All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by the University Grants Commission Nepal (Grant No. FRG 76/77 S&T-6) RCK's effort was supported in part by the National Institutes of Health (NIH) Office of Research Infrastructure Programs (ORIP) under award number P510D010425 to the Washington National Primate Research Center, USA.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: The data used in the study will be made available upon the request to the corresponding author.

Acknowledgments: We would like to thank Department of Forests and Soil Conservation (Permission Number: 292-078/79) and Ramaroshan Tourism Board for providing research permission in the Ramaroshan Wetland Complex. We are grateful to Indra Bahadur Rokaya for his valuable support during field works. We would like to thank University Grant Commission Nepal, for providing financial support (Grant No.: FRG 76/77 S&T-6 to Laxman Khanal) to complete this study.

Conflicts of Interest: The authors declare no conflict of interest.

References

- 1. Adhikari, J.N.; Bhattarai, B.P.; Rokaya, M.B.; Thapa, T.B. Land use/land cover changes in the central part of the Chitwan Annapurna Landscape, Nepal. *PeerJ* 2022, *10*, e13435. [CrossRef] [PubMed]
- 2. Ahmed, K.; Khan, J.A. Herpetofauna assemblage in two watershed areas of Kumoan Himalaya, Uttarakhand, India. J. Threat. Taxa 2021, 13, 17684–17692. [CrossRef]
- Aryal, P.C.; Aryal, C.; Neupane, S.; Sharma, B.; Dhamala, M.K.; Khadka, D.; Kharel, S.C.; Rajbanshi, P.; Neupane, D. Soil moisture and roads influence the occurrence of frogs in Kathmandu Valley, Nepal. *Glob. Ecol. Conserv.* 2020, 23, e01197. [CrossRef]
- 4. Baker, C.; Lawrence, R.; Montagne, C.; Patten, D. Mapping wetlands and riparian areas using Landsat ETM+ imagery and decision-tree-based models. *Wetlands* **2006**, *26*, 465–474. [CrossRef]
- Bansal, S.; Katyal, D.; Garg, J. A novel strategy for wetland area extraction using multispectral MODIS data. *Remote Sens. Environ.* 2017, 200, 183–205. [CrossRef]
- 6. Barrett, K.; Guyer, C. Differential responses of amphibians and reptiles in riparian and stream habitats to land use disturbances in western Georgia, USA. *Biol. Conserv.* **2008**, *141*, 2290–2300. [CrossRef]
- Bennett, G.; Mulongoy, K.J. *Review of Experience with Ecological Networks, Corridors and Buffer Zones*; Technical Series; Secretariat of the Convention on Biological Diversity: Montreal, QC, Canada, 2006; p. 100.
- 8. Best, J. Anthropogenic stresses on the world's big rivers. Nat. Geosci. 2019, 12, 7–21. [CrossRef]

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- 9. Bhattacharjee, S.; Islam, M.T.; Kabir, M.E.; Kabir, M.M. Land-use and land-cover change detection in a north-eastern wetland ecosystem of Bangladesh using remote sensing and GIS techniques. *Earth Syst. Environ.* **2021**, *5*, 319–340. [CrossRef]
- 10. Bhattarai, K.R.; Vetaas, O.R.; Grytnes, J.A. Fern species richness along a central Himalayan elevational gradient, Nepal. J. Biogeogr. 2004, 31, 389–400. [CrossRef]
- 11. Blaustein, A.R.; Walls, S.C.; Bancroft, B.A.; Lawler, J.J.; Searle, C.L.; Gervasi, S.S. Direct and indirect effects of climate change on amphibian Populations. *Diversity* **2010**, *2*, 281–313. [CrossRef]
- Borzée, A.; Litvinchuk, S.N.; Ri, K.; Andersen, D.; Nam, T.Y.; Jon, G.H.; Man, H.S.; Choe, J.S.; Kwon, S.; Othman, S.N.; et al. Update on Distribution and Conservation Status of Amphibians in the Democratic People's Republic of Korea: Conclusions Based on Field Surveys, Environmental Modelling, Molecular Analyses and Call Properties. *Animals* 2021, *11*, 2057. [CrossRef]
- Chalaune, T.B.; Dangol, A.; Sharma, J.; Sharma, C.M. First results on physico-chemical status and bathymetry of lakes in Ramaroshan Wetland, Far-West Nepal. *Nepal J. Environ. Sci.* 2020, *8*, 17–27. [CrossRef]
- Christin, M.; Menard, L.; Gendron, A.; Ruby, S.; Cyr, D.; Marcogliese, D.; Rollins-Smith, L.; Fournier, M. Effects of agricultural pesticides on the immune system of Xenopus laevis and Rana pipiens. *Aquat. Toxicol.* 2004, 67, 33–43. [CrossRef] [PubMed]
- 15. Colwell, R.K.; Mao, C.X.; Chang, J. Interpolating, extrapolating, and comparing incidence-based species accumulation curves. *Ecology* **2004**, *85*, 2717–2727. [CrossRef]
- 16. Congalton, R.G. Accuracy assessment and validation of remotely sensed and other spatial information. *Int. J. Wildland Fire* **2001**, *10*, 321–328. [CrossRef]
- 17. Cothran, R.D.; Brown, J.M.; Relyea, R.A. Proximity to agriculture is correlated with pesticide tolerance: Evidence for the evolution of amphibian resistance to modern pesticides. *Evol. Appl.* **2013**, *6*, 832–841. [CrossRef]
- Dangol, A.; Pant, R.R.; Chalaune, T.B.; Sharma, J.; Thapa, B.; Thapa, L.B.; Bishwakarma, K. Hydrochemical Characterization of Lentic and Lotic Environments of Ramaroshan Area, Sudurpaschim Province, Nepal. *Geogr. J. Nepal* 2022, *15*, 83–102. [CrossRef]
- 19. Davidson, N.C. How much wetland has the world lost? Long-term and recent trends in global wetland area. *Mar. Freshw. Res.* **2014**, *65*, 934–941. [CrossRef]
- 20. Dixon, M.; Loh, J.; Davidson, N.; Beltrame, C.; Freeman, R.; Walpole, M. Tracking global change in ecosystem area: The Wetland Extent Trends index. *Biol. Conserv.* **2016**, *193*, 27–35. [CrossRef]
- Forest Action Nepal. Assessment and Conservation Status of Aquatic Biodiversity in Lower Karnali and Mahakali River Basin; United States Agency for International Development- Paani Program: Kathmandu, Nepal, 2020; pp. 61–62.
- 22. Fu, C.; Hua, X.; Li, J.; Chang, Z.; Pu, Z.; Chen, J. Elevational patterns of frog species richness and endemic richness in the Hengduan Mountains, China: Geometric constraints, area and climate effects. *Ecography* **2006**, *29*, 919–927. [CrossRef]
- Fu, C.; Wang, J.; Pu, Z.; Zhang, S.; Chen, H.; Zhao, B.; Chen, J.; Wu, J. Elevational gradients of diversity for lizards and snakes in the Hengduan Mountains, China. *Biodivers. Conserv.* 2007, 16, 707– 726. [CrossRef]
- 24. Garrard, R.; Kohler, T.; Price, M.F.; Byers, A.C.; Sherpa, A.R.; Maharjan, G.R. Land use and land cover change in Sagarmatha National Park, a world heritage site in the Himalayas of Eastern Nepal.

Mt. Res. Dev. 2016, 36, 299-310. [CrossRef]

- Gibbons, J.W. Terrestrial habitat: A vital component for herpetofauna of isolated wetlands. *Wetlands* 2003, 23, 630–635. [CrossRef]
- 26. Gillespie, G.; Howard, S.; Lockie, D.; Scroggie, M.; Boeadi. Herpetofaunal richness and community structure of offshore Islands of Sulawesi, Indonesia. *Biotrop. J. Biol. Conserv.* **2005**, *37*, 279–290.
- 27. Hamer, A. Accessible habitat and wetland structure drive occupancy dynamics of a threatened amphibian across a peri-urban landscape. *Landsc. Urban Plan.* **2018**, *178*, 228–237. [CrossRef]
- 28. Hammer, O.; Harper, D.A.T.; Ryan, P.D. PAST: Paleontological Statistics Software Package for Education and Data Analysis. *Palaeontol. Electron.* **2001**, *4*, 4.
- 29. Hu, S.; Niu, Z.; Chen, Y.; Li, L.; Zhang, H. Global wetlands: Potential distribution, wetland loss, and status. *Sci. Total Environ.* **2017**, *586*, 319–327. [CrossRef] [PubMed]
- 30. Hyandye, C.; Mandara, C.G.; Safari, J. GIS and logit regression model applications in land use/land cover change and distribution in Usangu catchment. *Am. J. Remote Sens.* **2015**, *3*, 6–16. [CrossRef]
- Inskipp, C.; Baral, H.S.; Inskipp, T.; Stattersfield, A. The state of Nepal birds 2010. J. Threat. Taxa 2013, 5, 3473–3503. [CrossRef]
- Islam, H.; Abbasi, H.; Karam, A.; Chughtai, A.H.; Ahmed Jiskani, M. Geospatial analysis of wetlands based on land use/land cover dynamics using remote sensing and GIS in Sindh, Pakistan. *Sci. Prog.* 2021, 104, 00368504211026143. [CrossRef] [PubMed]
- 33. Johari, N.J.; Ahmad, A.; Ngadi, E.; Mustapha, M.A.; LEE, L. Habitat preferences dictate amphibian assemblage and diversity in Langkawi Island, Kedah, Peninsular Malaysia. *Sains Malays.* **2021**, *50*, 605–616.
- Khatiwada, J.R.; Zhao, T.; Chen, Y.; Wang, B.; Xie, F.; Cannatella, D.C.; Jiang, J. Amphibian community structure along elevation gradients in eastern Nepal Himalaya. *BMC Ecol.* 2019, 19, 19. [CrossRef]
- Kim, H.W.; Adhikari, P.; Chang, M.H.; Seo, C. Potential Distribution of Amphibians with Different Habitat Characteristics in Response to Climate Change in South Korea. *Animals* 2021, *11*, 2185. [CrossRef] [PubMed]
- Kingsford, R.T.; Basset, A.; Jackson, L. Wetlands: Conservation's poor cousins. *Aquat. Conserv. Mar. Ecosyst.* 2016, 26, 892–916. [CrossRef]
- Kyriakidis, P.C.; Liu, X.; Goodchild, M.F. Geostatistical Mapping of Thematic Classification Uncertainty. In *Remote Sensing and GIS Accuracy Assessment*; Lunetta, R.S., Lyon, J.G., Eds.; CRC Press: New York, NY, USA, 2004; pp. 145–162.
- Lamchin, M.; Lee, W.-K.; Jeon, S.W.; Wang, S.W.; Lim, C.H.; Song, C.; Sung, M. Long-term trend and correlation between vegetation greenness and climate variables in Asia based on satellite data. *Sci. Total Environ.* 2018, 618, 1089–1095. [CrossRef]
- 39. Li, J.S.; Song, Y.L.; Zeng, Z.G. Elevational gradients of small mammal diversity on the northern slopes of Mt. Qilian, China. *Glob. Ecol. Biogeogr.* **2003**, *12*, 449–460. [CrossRef]
- 40. Lin, Q.; Yu, S. Losses of natural coastal wetlands by land conversion and ecological degradation in the urbanizing Chinese coast. *Sci. Rep.* **2018**, *8*, 15046. [CrossRef]
- 41. Macreadie, P.I.; Anton, A.; Raven, J.A.; Beaumont, N.; Connolly, R.M.; Friess, D.A.; Kelleway, J.J.; Kennedy, H.; Kuwae, T.; Lavery,

- 42. Markle, C.E.; Chow-Fraser, G.; Chow-Fraser, P. Long-term habitat changes in a protected area: Implications for herpetofauna habitat management and restoration. *PLoS ONE* **2018**, *13*, e0192134. [CrossRef]
- Navas, C.A. Herpetological diversity along Andean elevational gradients: Links with physiological ecology and evolutionary physiology. *Comp. Biochem. Physiol. Part A Mol. Integr. Physiol.* 2002, 133, 469–485. [CrossRef] [PubMed
- 44. Newton, A.; Icely, J.; Cristina, S.; Perillo, G.M.; Turner, R.E.; Ashan, D.; Cragg, S.; Luo, Y.; Tu, C.; Li, Y. Anthropogenic, direct pressures on coastal wetlands. *Front. Ecol.* **2020**, *8*, 144. [CrossRef]
- 45. Oommen, M.A.; Shanker, K. Elevational species richness patterns emerge from multiple local mechanisms in Himalayan woody plants. *Ecology* **2005**, *86*, 3039–3047. [CrossRef]
- 46. Pandey, N.; Khanal, L.; Chalise, M.K. Correlates of avifaunal diversity along the elevational gradient of Mardi Himal in Annapurna Conservation Area, Central Nepal. *Avian Res.* **2020**, *11*, 31. [CrossRef]
- 47. Poudel, A.K.; Adhikari, D. Monitoring of Wetland Dependent Birds in Ramaroshan Lake Complex of Achham, Nepal. *Bird Conserv. Nepal News Lett.* **2019**, 12–14.
- 48. Pounds, J.A.; Fogden, M.P.; Savage, J.M.; Gorman, G.C. Tests of null models for amphibian declines on a tropical mountain. *Conserv. Biol.* **1997**, *11*, 1307–1322. [CrossRef]
- Rai, R.; Zhang, Y.; Paudel, B.; Acharya, B.K.; Basnet, L. Land use and land cover dynamics and assessing the ecosystem service values in the trans-boundary Gandaki River Basin, Central Himalayas. *Sustainability* 2018, 10, 3052. [CrossRef]
- 50. Rajbanshi, K. Biodiversity and Distribution of Freshwater Fishes of Central/Nepal Himalayan Region; Nepal Fisheries Society (NEFIS): Kathmandu, Nepal, 2012; p. 136.
- 51. Remm, L.; Vaikre, M.; Rannap, R.; Kohv, M. Amphibians in drained forest landscapes: Conservation opportunities for commercial forests and protected sites. *For. Ecol. Manag.* **2018**, *428*, 87–92. [CrossRef]
- 52. Secretariat, R.C. *The Ramsar Convention Manual: A Guide to the Convention on Wetlands (Ramsar, Iran, 1971)*; Ramsar Convention Secretariat: Gland, Switzerland, 1997.
- 53. Shah, K.B.; Tiwari, S. *Herpetofauna of Nepal: A Conservation Companion*; International Union for Conservation of Nature (IUCN): Kathmandu, Nepal, 2004; p. 237.
- 54. Shrestha, B.; Shrestha, S.; Shrestha, A.; Khadka, U.R. Ramsar sites in Nepal: Conservation, present scenario, biodiversity value and threats. *J. Wetl. Ecol.* **2020**, *2020*, 24782. [CrossRef]
- 55. Shrestha, B.; Shah, K.B. Mountain survey of amphibians and reptiles and their conservation status in Manaslu Conservation Area, Gorkha District, Western Nepal. *Conserv. Sci.* **2017**, *5*, 13–18. [CrossRef]
- Singh, S.K.; Mustak, S.; Srivastava, P.K.; Szabó, S.; Islam, T. Predicting spatial and decadal LULC changes through cellular automata Markov chain models using earth observation datasets and geoinformation. *Environ. Process.* 2015, *2*, 61–78. [CrossRef]
- 57. Ter Braak, C. Biometris-quantitative methods in the life and earth sciences. *Plant Res. Int. Wagening.* Univ. Res. Cent. Box 2009,100, 6700.
- 58. Venugopal, D. Population density estimates of agamid lizards in human-modified habitatsof the Western Ghats, India. *Herpetol. J.* **2010**, *20*, 69–76.
- 59. Vetaas, O.R.; Grytnes, J.A. Distribution of vascular plant species richness and endemic richness along the Himalayan elevation gradient in Nepal. *Glob. Ecol. Biogeogr.* **2002**, *11*, 291–301. [CrossRef]

- 60. Villamarín, F.; Moraes, L.J.; Ferrara, C.R.; Kaefer, I.L.; Werneck, F.P.; de Fraga, R. Ecology and Conservation of Wetland Amphibians and Reptiles. In *Encyclopedia of Inland Waters*, 2nd ed.; Mehner, T., Tockner, K., Eds.; Elsevier: Amsterdam, The Netherlands, 2022; Volume 3, pp. 256–266. [CrossRef]
- 61. Walls, S.C.; Blaustein, A.R.; Beatty, J. Amphibian biodiversity of the Pacific Northwest with special reference to old-growth stands. *Northwest Environ. J.* **1992**, *8*, 53–69.
- 62. Wang, S.W.; Gebru, B.M.; Lamchin, M.; Kayastha, R.B.; Lee, W.-K. Land use and land cover change detection and prediction in the Kathmandu District of Nepal using remote sensing and GIS. *Sustainability* **2020**, *12*, 3925. [CrossRef]
- 63. Wilson, L.D.; McCranie, J.R. Herpetofaunal indicator species as measures of environmental stability in Honduras. *Caribb. J. Sci.*2003, *39*, 50–67.
- 64. Yang, Z.; Bai, J.; Zhang, W. Mapping and assessment of wetland conditions by using remote sensing images and POI data. *Ecol. Ind.* 2021, *127*, 107485. [CrossRef]
- 65. Zhang, J.; Zhang, Y.; Lloyd, H.; Zhang, Z.; Li, D. Rapid reclamation and degradation of suaeda salsa saltmarsh along coastal china's northern yellow sea. *Land* **2021**, *10*, 835. [CrossRef]

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एक चिहान उपन्यासमा सीमान्तीयता

–नरेन्द्र प्रसाद भट्ट

विद्यावरिधि शोधार्थी

सुदूरपश्चिम विश्वविद्यालय,महेन्द्रनगर, कञ्चनपुर

Article History : Received Date : 2079/08/20; Accepted Date : 2079/09/10

सार

प्रस्तुत आलेख उपन्यासकार हृदयचन्द्रसिंह प्रधानद्वारा लिखित 'एक चिहान' उपन्यासमा सीमान्तीयताको विश्लेषणमा आधारित छ । सत्ता वा शक्तिशाली वर्गबाट सधै पछाडि परेको वा पारिएको समुदाय नै सीमान्त समुदाय हो र तिनीहरूको बारेमा गरिने अध्ययन सीमान्तीय अध्ययन हो । सीमान्तीयता सिद्धान्तसम्बन्धी अवधारणालाई सौद्धान्तिक पर्याधारका रूपमा उपयोग गरी एक चिहान उपन्यासमा सीमान्त समुदायको प्रतिनिधित्व र पहिचानको अवस्था तथा तिनको आवाज र प्रतिरोधी चेतनाको विश्लेषण गर्नु यस लेखको उद्देश्य हो । समाजमा रहेको वर्गीय तथा लैङ्गिक सीमान्तीयताको अध्ययन गरी तथ्यपरक निष्कर्ष निकालिएको छ । शिवनारानको परिवारका पात्रहरू प्रभुत्वशाली वर्गको शोषण, दमन सहेर पहिचानविहीन बनेका छन् । सीमान्त समुदायको प्रतिनिधित्व, पहिचान र प्रतिरोध चेतनाका दृष्टिले समाजमा वर्गीय र लैङ्गिक आधारमा विभेद रहेको र सो विभेदको अन्त्य गर्नुपर्ने आवाज र यसका विरुद्धको जागरण सो समुदायमा देखिन थालेको सन्दर्भको विश्लेषण प्रस्तुत लेखमा गरिएको छ । यस लेखका लागि सामग्री सङ्कलन गर्न पुस्तकालयको प्रयोग गरिएको छ । अध्ययनको प्राथमिक सामग्रीका रुपमा 'एक चिहान' उपन्यासलाई र द्वितीयक सामग्रीका रुपमा सीमान्तीयताका बारेमा एवं सीमान्तीय कोणवाट उपन्यासहरुका बारेमा भएका पूर्ववर्ती अध्ययनहरुलाई उपयोग गरिएको छ । सङ्कलन गरिएका सामग्रीको विश्लेषणका लागि मुलत: पाठविश्लेषणात्मक विधिको अवलम्बन गर्दै निष्कर्षमा पृगिएको छ ।

शब्दक्ञ्जी : प्रभ्त्व, वर्गीय शोषण, प्रतिरोध, सीमान्त, अधिनस्त

परिचय

एक चिहान उपन्यासकार हृदयचन्द्रसिंह प्रधानको सामाजिक यथार्थवादी उपन्यास हो । प्रधान सामाजिक यथार्थवादी धाराका प्रगतिशील उपन्यासकार हृन् । उनका उपन्यासहरूमा नेपाली समाजमा विद्यमान वर्गीय, लैङ्गिक, जातीय, क्षेत्रीय विभेद र त्यसबाट सृजित सामाजिक समस्याको प्रस्तुति पाइन्छ । उनको यो उपन्यास नेपाली समाजको यथार्थ अभिव्यक्ति हो । 'एक चिहान' उपन्यासमा काठमाडौं उपत्यकाको ग्रामीण परिवेशको निम्नवर्गीय ज्यापू परिवारको अत्यन्त कारूणिक अवस्थालाई विषयवस्तु बनाइएको छ । सुरमान सुब्बाको खेत कमाएर जीविकोपार्जन गर्ने अष्टनारानको परिवार निम्नवर्गीय किसान परिवार हो । यस उपन्यासमा शक्तिशाली वर्गको अत्याचार र सीमान्त समुदायका पीडा समेटिएकोले सीमान्तीय दृष्टिले यस उपन्यासको अध्ययन बाञ्छनीय छ ।

सीमान्तीयता शब्दलाई अडग्रेजी भाषा साहित्यमा 'सबार्ल्टन' भनिन्छ । यो शब्दले सदियौंदेखि शोषितपीडितका रुपमा रहेका शासित, आवाजविहीन तथा इतिहासविहीन वर्गलाई जनाउँछ । परापूर्व कालदेखि नै शक्तिशाली र कमजोर गरी दुई वर्गमा विभाजित मानव समाज तिनै दुई वर्गको बीचको सङ्घर्षबाट विकसित हुँदै आजको सभ्यतामा आइपुगेको छ । यस कममा

शक्तिशाली वर्गले सधै केन्द्र र सत्तामा रहरे आफ्नो अनुकूल नीति, नियम, धर्म, सत्य र मूल्यको निर्माण गरी त्यसैका आधारमा सधैँ किनारामा रहेकाहरूमाथि विभेद गऱ्यो । त्यसैको परिणामस्वरूप वर्गीय, जातीय, लैड्गिक, राजनीतिक, भाषिक आदिका आधारमा एउटा ठूलो समुदाय सधैँ उपेक्षित,उत्पिडित बनेर पछाडि पऱ्यो । यसरी पछाडि परेको वा पारिएको समुदाय नै सीमान्त समुदाय हो र तिनीहरूको बारेमा गरिने अध्ययन सीमान्तीय अध्ययन हो । एक चिहान उपन्यासमा शक्तिशाली वर्गबाट शोषित, पिडित र उपेक्षित यस्तै सीमान्त वर्गको कघ्टपूर्ण जीवन र तिनले बाच्नका लागि गरेको सङ्घर्षको मार्मिक चित्रण गरिएको छ । यस उपन्यासको बारेमा विभिन्न कोणबाट अध्ययनहरु गरिएका भए पनि सीमान्तीयताका कोणबाट भने अहिलेसम्म कुनै अध्ययनकार्य हुन सकेको छैन । यस लेखले यही अभाव पूति गर्ने भएकोले यस लेखको प्रज्ञिक औचित्व र महत्व रहेको छ । 'एक चिहान' उपन्यासमा सीमान्त समुदायको प्रतिनिधित्व र पहिचानको अवस्था के कस्तो छ तथा यस उपन्यासभित्र सीमान्त समुदायको आवाज र प्रतिरोध चेतना कसरी अभिव्यक्त भएको छ भन्ने समस्याहरु पहिचान गरी तिनको निराकरण गर्ने यस आलेखको उद्देश्य रहेको छ । त्यसैगरी यस उपन्यासमा सीमान्त समुदायको प्रतिनिधित्व र पहिचानको अवस्था तथा सीमान्त समुदायको आवाज र प्रतिरोध चेतनाको मात्रै विश्लेषण गर्न् यस आलेखको सीमा हो ।

अध्ययन विधि

प्रस्तुत लेख गुणात्मक प्रकृतिको भएकाले पुस्तकालयबाट सामग्री सङ्कलन गरिएको छ । यस लेखमा विश्लेष्य उपयन्यासलाई प्राथमिक सामग्री र सीमान्तीयताका बारेमा एवं सीमान्तीय कोणबाट उपन्यासहरुका बारेमा भएका पूर्ववर्ती अध्ययनहरुलाई द्वितीयक सामग्रीका रुपमा उपयोग गरिएको छ । शोधप्रश्नका रूपमा उठाइएका समस्याको समाधानका लागि पाश्चात्य समालोचना परम्परामा विकसित सांस्कृतिक अध्ययनअन्तर्गत सीमान्तीयतासम्बन्धी सैद्धान्तिक मान्यतालाई आधार बनाई सङ्कलित सामग्रीको विश्लेषण गरिएको छ । विश्लेषणका कममा आवश्यकतानुसार निगमनात्मक एवं आगमनात्मक तर्कपद्धतिको उपयोग गर्दै मुख्यतया पाठविश्लेषण विधिको उपयोग गरी निष्कर्ष निकालिएको छ ।

सैद्धान्तिक पर्याधार

सीमान्तीयता अध्ययन सांस्कृतिक अध्ययनभित्रको एउटा नवीन सैद्धान्तिक अवधारणा हो । सीमान्तीयता (सवार्ल्टन) शव्दको सर्वप्रथम प्रयोग इटालेली चिन्तक आन्तोनियो ग्राम्सीले गरेका हुन । सीमान्तीयता १९८० को दशक पछि खासगरी सीमान्तीकृत वर्गको इतिहास लेखन र साहित्य समालोचनाका क्षेत्रमा देखापरेको सिद्धान्त हो । एसिया र विशेष गरी भारतमा सवाल्टर्न अध्ययन समूह नै बनेको देखिन्छ । ब्रिटिस उपनिवेशकालमा भारतमा किसान मजदुरलगायत निम्नतहको समुदायले खेलेको भूमिका ब्रिटिस इतिहासकारहरुले ओभेलमा पारेको भन्दै भारतीय प्राध्यापकहरूले सवार्ल्टर्न अध्ययन समूह बनाएको देखिन्छ । सन् १८८२ मा रञ्जित गुहाको नेतृत्वमा यस्तो अध्ययन समूहको स्थापना भयो । पहिले कम्युनिष्ट पार्टीका सदस्य बनेका गुहाले पछि माक्सवादको विकल्पका रुपमा सवाल्टर्न अध्ययन समूहको स्थापना भयो । पहिले कम्युनिष्ट पार्टीका सदस्य बनेका गुहाले पछि माक्सवादको विकल्पका रुपमा सवाल्टर्न अध्ययन समूहको स्थापना भयो । पहिले कम्युनिष्ट पार्टीका सदस्य बनेका गुहाले पछि माक्सवादको विकल्पका रुपमा सवाल्टर्न अध्ययन समूहको स्थापना गरेका थिए । सत्ता वा शक्तिबाट किनारामा पारिएका आवाजविहीन, दमित, शोषित र अधीनस्थ वर्गलाई सीमान्तीय वर्ग भनिन्छ । सीमान्तकृत शब्दलाई निम्न, उपेक्षित र किनारीकृत वर्गको सम्बोधक शब्दका रूपमा लिने प्रचलन छ । मानिसहरू सबाल्टर्न अध्ययनलाई गरिब र सर्वहारा अनि समाजका पिर्छाडिएका सीमान्तकृत मानिसहरूको पर्यायका रूपमा लिन्छन्त् (सुवेदी, २०६८ पृ. xix) । तारालाल श्रेष्ठ (२०६८) का अनुसार सबाल्टर्न शब्दले सदियौदेखि शासित, आवाजविहीन तथा इतिहासविहीन वर्गलाई जनाउँछ (१) । यो वर्ग सत्ता र शक्तिबाट टाढा रहेको हुन्छ भने आफ्नो हकअधिकारका लागि आवाज उठाउन सक्वैन । शर्मा (२०७०) ले इतिहासभन्दा साहित्यमा सीमान्तलाई बढी चपल र बोलन्ते तल्याएर प्रस्तुत गरिने हुंदा कृतिको सीमान्तीयता अध्ययन बढी उपयोगी हने

वताएका छन् (३१९) उनले अवरजन शव्दलाई सीमान्तीयताको समानार्थी शब्दका रुपमा प्रयोग गरेका छन् । बराल (२०७३) ले समाजमा हेपिएका र ओभोलमा परेकाहरुको इतिहास र समाज विकासमा उनीहरुले खेलेको भूमिकालाई प्रकासमा ल्याउने कामलाई नै सल्बार्टन अध्ययन भनेका छन् (पृ.२०६) । यिनै शोशितपीडित, आवाजविहीन र इतिहासविहीन वर्गका आवाज सुन्ने र यस वर्गको योगदानलाई केन्द्रमा राखेर इतिहास र साहित्यको विश्लेषण गर्ने सैद्धान्तिक अवधारणालाई सीमान्तीयता अध्ययन भनिन्छ । इतिहास र साहित्यको घनिष्ट सम्बन्ध हुने हुदाँ सीमान्तीयता अध्ययनको प्रयोग साहित्यिक सन्दर्भमा प्रभावकरिकताका साथ गर्न मिल्छ । सीमान्तीयताले इतिहासमा भन्दा बढी ठाउँ साहित्यमा पाएको हुन्छ । कुनै कृतिमा प्रयुक्त तल्लो दर्जाको पात्र नै सीमान्त पात्र हो । यसरी समाजमा आर्थिक, लैङ्गिक, सामाजिक साथै सांस्कृतिक रूपमा उपेक्षित वा किनारीकृत सबैका पर्यायका रूपमा सीमान्तीयता अध्ययन स्थापित छ । सीमान्तीयता वर्ग, जाति, लिडग, क्षेत्र, उमेर, समुदाय, पेशा शिक्षा ओहोदा आदिका रुपमा निर्मित हुन्छ ।

कृतिभित्र प्रतिनिधित्व गराइएको वर्गीय, जातीय र लैड्गिक सीमान्त पात्रको पहिचान र प्रतिनिधित्व कुन रूपमा गराइएको छ भन्ने कुराको विश्लेषण सीमान्तीय अध्ययनमा गरिन्छ । सीमान्तीय अध्ययनमा प्रतिनिधित्वका सवालमा सीमान्तीय को हुन्, तिनको पिहिचानको अवस्था के कस्तो छ, तिनको आवाज आफै बोलेका छन् वा कसले बोलेको छ , तिनको शक्तिसँग सम्बन्ध र ज्ञान प्रक्रियामा हैसियत कस्तो छ र तिनमा प्रभृत्वशाली संस्कृतिको कस्तो प्रभाव परेको छ जस्ता सन्दर्भहरूको उत्खनन् गरिन्छ । कृतिमा सीमान्त वर्गको प्रतिनिधित्व कति मात्रामा गराइएको छ र प्रभुत्वशाली वर्ग र सीमान्त वर्गमध्ये कुन वर्गलाई प्राथमिकता दिइएको छ भन्ने कुरा नै प्रतिनिधित्व कति मात्रामा गराइएको छ र प्रभुत्वशाली वर्ग र सीमान्त वर्गमध्ये कुन वर्गलाई प्रीयमिकता दिइएको छ भन्ने कुरा नै प्रतिनिधित्व को केन्द्रिय विषय हो (वाग्ले, २०७७) । वर्गीय, जातीय, लैर्ड्गिक रूपमा सीमान्तमा रहेका पात्रहरूको प्रतिनिधित्व पाठमा उनीहरूको निश्चित सन्दर्भसँगै आउँछ र यसले उनीहरूको अवस्थालाई देखाउँछ (गिरी, २०७०, पृ. २८) । यसरी कृतिभित्र वर्गीय, जातीय र लैर्ड्गिक सीमान्त पात्रहरूको प्रतिनिधित्वको संरचना केकस्तो छ र लेखकले तिनकको प्रतिनिधित्व कसरी गराएका छन् भन्ने कुराको विश्लेषण यस अवधारणाअन्तर्गत गरिन्छ । यसका साथै सबाल्टर्न वर्गले शक्तिका अगाडि सहमति वा सम्भौता गरेको छ वा मुक्ति वा स्वाधीनताको निम्ति तिनमा प्रतिरोधी चेतना विकसित भएको छ भन्ने सवालको खोजी पनि सीमान्तीय अध्ययनमा गरिन्छ ।

सीमान्तीकृत पात्र आफै बाचाल नहुने हुनाले कृतिमा तिनको लागि कसले बोलेको छ,, कसरी बोलेको छ,, कृतिमा पात्र आफै बोलेको छ या उसको आवाज लेखक , समाख्याता वा अरू कोही बोलेको छ भन्ने कुराको अध्ययन सीमान्तको आवाज अन्तर्गत गरिन्छ । त्यसैगरी सीमान्त वर्गमा प्रभुत्वशाली वर्गसँग अधिकार प्राप्तिका लागि आवाज उठाउन सक्ने चेतना विकसित हुनु प्रतिरोधी चेतना हो । वाग्ले (२०७७) का अनुसार विभेदकारी सामन्ती शक्तिकेन्द्र वा राज्यसत्ताका विरुद्धमा जागरूक भएर आफ्नो हक, अधिकार वा अवसरको लागि क्रियाशील भएर आवाज उठाउन सक्ने चेतना हो । शर्मा (२०७०) भन्छन् :

गायत्री चक्रवर्तीका विचारमा सीमान्तीय वर्ग आफ्ना लागि आफैं बोल्न सक्दैनन् । तसर्थ बैद्धिक वर्गले तिनका लागि बोलिदिनु पर्छ भन्ने उनको मान्यता रहेको छ । त्यसो त सीमान्तीय आफ्ना सुखदुख व्यक्त गर्ने सक्दैनन् भन्ने होइन तर त्यस्ता अभिव्यक्तिहरूको स्वर ज्यादै मसिनो भएकाले नसुनिएर आफै दबिन्छ । उनका विचारमा सबाल्टर्न आफ्नो प्रतिनिधित्व पनि आफै गर्न सक्दैनन् तसर्थ बौद्धिक वर्गले तिनको प्रतिनिधित्व गरिदिन् पर्छ (३१८) ।

गायत्री चक्रवर्ती स्पिभाकले सीमान्त समुदाय आफ्ना लागि आफै बोल्न नसक्ने भएकोले बौद्धिक वर्गले तिनका लागि बोलिदिनु पर्ने बताएकी छन्। उनले सीमान्त समुदाय आफ्ना लागि आफै बोल्न नसक्ने बताए पनि यो वर्गले आफ्नो अधिकार प्राप्तिका लागि आवाज उठाउने प्रयास नै नगर्ने भने होइन। प्रभुत्वशाली वर्गका क्रियाकलापका विरुद्धमा बोलेर आफ्नो अधिकार प्राप्तिको लागि गरेको प्रयास नै सीमान्तीकृत वर्गको आवाज हो। कृतिमा प्रतिनिधित्व गराइएका सीमान्तीकृत वर्गले आफ्नो पहिचान र अस्तित्वका लागि बोलेका छन् कि छैनन् भन्ने क्राको अध्ययन सीमान्त समुदायको प्रतिरोध चेतना अन्तर्गत गरिन्छ।
सीमान्त समुदायका प्रतिनिधित्व र पहिचान

एक चिहान उपन्यासमा काठमाडौं उपत्यकाको ग्रामीण परिवेशको निम्नवर्गीय ज्यापू परिवारको अत्यन्त कारूणिक अवस्थालाई विषयवस्तु बनाइएको छ । यस उपन्यासका पात्रहरुमा अष्टनारान, शिवनारान, नानीथँकु, लतमाया, हाकुमाया, पुननारान, हर्षनारान, पुतली, रामखेलाउन रावत, डाक्टर गोदत्त प्रसाद, सुरमान सुब्बा, रामबहादुर, रञ्जनादेवी र माइला तामाङ रहेका छन् । प्रतिनिधित्व र पहिचानका दृष्टिले अष्टनारान, शिवनारान, नानीथँकु, लतमाया, हाकुमाया, पुननारान, हर्ष नारान, पुतली र माइला तामाङ सीमान्तीय पात्र हुन् भने डाक्टर गोदत्त प्रसाद र सुरमान सुब्बाले शक्तिशाली उच्च वर्गको प्रतिनिधित्व गरेका छन् । सुरमान सुब्वाको खेत कमाएर जीविकोपार्जन गर्ने अष्टनारानको परिवार निम्नवर्गीय किसान परिवार हो । प्रसस्त पसिना बगाउने शिवनारानसँग पँहुच छैन भने सातदिन परिश्रम गर्ने पुननारान र हर्ष नारान पनि साधन विहीन छन् । अष्टनारानको परिवार मेहनति भएर पनि भौतिक र बौद्धिक दुवै रुपले साधन विहीन अवस्थामा छ । सीमान्तीयताका दृष्टिले हेर्ने हो भने यस उपन्यासमा सीमान्त वर्गको प्रतिनिधित्व अष्टनारानकै परिवारले गरेको छ । अष्टनारानले आफ्नो अन्तिम समयमा आफूले आफ्ना सन्तानहरुलाई कुनै प्रकारको सुखसुविधा दिन नसकेकोमा आफ्नो जीवनप्रति नै ग्नानी प्रकट गरेको छ । बिरामी अष्टनारानका यी अभिव्यक्तिले उसको दयनीय आर्थिक अवस्थाको उजागर गरेको छ :

मैले तिमीहरुलाई केवल जन्माएँ, तिमीहरुको गाँसवासको मैले केही बन्दोबस्त गर्न सकेन (१) ।

होइन, तिमीहरुले मलाई यसरी धुमधामसँग किन औषधी गर्न लागेको ? म एउटा बालक अथवा युवक पनि त होइन, पुरा आयु पुगि सकेको गरिव घरको एउटा बुढो बिरामी हुँदा डाक्टरलाई देखाएर ऋण लिई यसरी खर्च गर्नु बुद्धिमानी होइन (९३) ।

जिन्दगी यस्तै हो, आखिरमा एक दिन सबैले जानै पर्छ। बा, बाजे, बडाबजे जस्तै म पनि मॅरुला, के भयो, यो हाम्रो निम्ति परम्परै हो। त्यसैले बाबुहरु हो, मेरो कुरा सुन डाक्टरलाई देखाएर नचाहिँदो ऋण नबोक (पृ. १३)।

बिरामी अष्टनारानालाई आफ्नो स्वस्थ्यको भन्दा बढी चिन्ता उपचारका कारण निम्तिने ऋणको छ । छोराहरु ऋणमा डुब्ने र जीवनभरि दुःख पाउने भयले अष्टनारानले छोराहरुलाई डाक्टर बोलाएर आफ्नो उपचार नगर्न भनेको हो । आफ्ना पुवर्जहरु जस्तै आफूले पनि एक पटक मर्ने पर्ने भएकोले उनले छोराहरुलाई आफ्नो उपचार नगर्न भनेका छन् । बिरामी पर्दा उपचार गर्न पैसा नहुनु र ऋण काढेर उपचार गर्नुभन्दा मर्न तयार हुनु गरिबीको चरम अवस्था हो । यस्तो डरलाग्दो आर्थिक अवस्थामा बाचेको अष्टनारानको परिवार वर्गीय रुपले सीमान्तीकृत परिवार हो ।

उपन्यासको प्रमुख पात्र शिवनारान निम्नवर्गीय किसान हो । सुरमान सुब्बाको जमिनमा अधिया खेती गरेर जीविकोपार्जन गर्ने उसले निम्नवर्गीय भएकै कारण समाजका शक्तिशाली वर्गबाट पटकपटक सास्ती भोग्नु परेको छ । विरामी बुवाको उपचारसमेत गर्ने आर्थिक हैसित नभएका कारण उसले एकातिर बुवा गुमाउनु परेको छ भने अर्कोतिर डाक्टर गोदत्त प्रसादको हेपाहा र मिचाहा स्वभावबाट पटकपटक अपमानित र उपेक्षित हुनुपरेको छ । विरामी बुवाको उपचारका लागि डाक्टर बोलाउन गएको बेला शिवनारानले डाक्टर गोदत्त प्रसादबाट दुर्व्यवहार सहनु परेको छ । उसले शिवनारानलाई क्लिनिकमा अकारण नै घण्टौं कुराएको छ । सीमान्त वर्ग भएकै कारण डाक्टर गोदत्त प्रसादले शिवनारानको आग्रह र अनुनय सुन्न र उसका बुवाको उपचार गर्न आनकानी गरेको हो । गरिब भएकै कारण डाक्टर गोदत्त प्रसादले शिवनारानको आग्रह र अनुनय सुन्न र गरेका छन् :

गुभाजुसुभाजु यस्तै अरु नै कसैलाई देखाए त हुन्थ्यो नि । तिनीहरुलाई देखाएको भए किफायत पनि पर्थ्यो । फिस पनि धेरै दिन् पर्दैनथ्यो । मलाई त फिस दिन् पर्छ, तिमीहरुलाई मुस्किल पर्ला (पृ. ८) ।

शिवनारानलाई घण्टौं कुराएर पाँच रूपैया शुल्क अग्रिम लिने सर्तमा उपचार गर्न गएका गोदत्त प्रसाद शिवनारानकी बहिनी नानुथकुँलाई देखेपछि निःशुल्क उपचार गर्न थालेको छ । शिवनारानको गरिवीको फाइदा उठाएर नानुथकुँको यौवन हासिल गर्न प्रपञ्च रचेर डाक्टर गोदत्त प्रसादले मदतलाई आफ्नो स्वार्थ पूर्तिको माध्यम बनाएको छ । बुवाको मृत्युसंस्कार गर्न आफूसँग पैसा नहुँदा तिनै डाक्टर गोदत्त प्रसादबाट पच्चीस रूपैया लिएर शिवनारानले कार्किरीया सम्पन्न गर्नुपरेको छ । आफूले अष्टनारानको निःशुल्क उपचार गरेको र पच्चीस रूपैया सापटसमेत दिएको बलमा डाक्टर गोदत्त प्रसादले नानीथकुँको यौवनमाथि मात्र नभई शिवनारानको इज्जतप्रतिष्ठासँग समेत खेलवाड गरेको छ । यस प्रसङ्गले शिवनारान र उसको परिवारले सीमान्तीय र डाक्टर गोदत्त प्रसादले शक्तिशाली शोषक वर्गको प्रतिनिधित्व गरेको छ । तल्सिङ्को रुपमा रहेको सुरमान सुब्बाबाट पनि शिवनारानले शोषणको सिकार बन्नु परेको कुरा लतमायाको यो भनाइबाट बोध हुन्छ ।

सुब्बा साहेब मात्र असल भएर हुन्न, उँहाका छोराहरु अलि छुच्चा जस्ता देखिन्छन् । आफ्ना त सुख्खा परेको हुनाले पोहोर गएको सालको बाली बाँकी हुँदा उँहाको कान्छो छोरो आएर भन्ने नभन्ने भने । त्यसबेला यसका बाबुलाई सन्चो थिएन, त्यही पिरले पनि व्याथा बढ्दै आएको जस्तो मलाई लाग्यो । सयकडा २५ बढाएर कागज गरि दिएपछि बल्ल तिनले छोडेर गए (४७) ।

आर्थिक रुपले सीमान्त भएकै कारण शिवनारानको परिवार पहिचान विहीन बन्न पुगेको छ । यसरी यस उपन्यासमा शिवनारान र उसको परिवारले सुरमान सुब्बा र डाक्टर गोदत्त प्रसादजस्ता शक्तिशाली वर्गको अत्याचारका विरुद्ध आवाज उठाउन नसक्ने सीमान्तीय वर्गको प्रतिनिधित्व गरेको छ भने डाक्टर गोदत्त प्रसाद र सुरमान सुब्बाले शक्तिशाली वर्गको प्रतिनिधित्व गरेको छ ।

यस उपन्यासमा नारी पात्र नानीथँकु, रञ्जनादेवी हाँकुमाया र लतमाया लैंड्रिगक रूपले सीमान्तीकृत बनेका छन् । आफ्ना बुवाको उपचार गर्न आएका डाक्टरको कुदृष्टि नानीथकुँमाथि परेको छ । डाक्टर गोदत्त प्रसादको ध्यान विरामी अप्टनारानभन्दा बढी नानीथकुँमाथि केन्द्रित भएको छ । यसरी विवाहित गोदत्त प्रसादले नानीथकुँलाई यौनिक आँखाले हेर्नु र उसको यौवनका उपभोग गर्ने प्रपञ्च रच्नुले पुरुषलाई शक्तिशाली र महिलालाई सीमान्तीय वर्गको प्रतिनिधिका रूपमा प्रस्तुत गरेको छ । ५७ बर्षका सुरमान सुबाले १७ वर्षकी नानुथकुँसँग विवाह गर्ने प्रमञ्च गर्नु पनि यसैको उदाहरण हो । शिवनारानले विवाह योग्य वर खोज्न थाल्दा होस् अथवा डाक्टर गोदत्त प्रसाद र सुरमान सुब्बाले विवाह प्रस्तावको सवालमा होस् नानीथकुँको इच्छा र चाहना कसैले पनि बुभ्त्ने प्रयास गरेका छैनन् । डाक्टर गोदत्त प्रसादले श्रीमती रञ्जना देवी आफ्नै पतिवाट सीमान्तीकृत बनेकी छ । नयाँनयाँ तरुनीसँग यौनलीला रच्चै हिँड्ने डाक्टर गोदत्त प्रसादले नारीलाई केवल उपभोग्य वस्तु ठानेको छ । उसले रञ्जना देवीले नानीथँकुसँगको सम्बन्धको बारेमा गरेका कुनै पनि प्रश्नको जवाफ नदिएर घोर उपेक्षा गरेको छ । त्यसैगरी नारी भएकै कारण लतमायाको भूमिका पनि परिवारमा कमजोर र आश्रित रूपमै रहेको छ । सुरमान सुब्बाले आर्थिक प्रलोभन देखाएर फकाउन खोज्नु होस् या डाक्टर गोदत्त प्रसाद दिनहु आफ्नो घरमा आइरहने प्रसङ्गमा "तपाई आमा हो कि कुन्टुकी बुढी ?" भनेर आफ्नै छोरा शिवनारानले हकारेको प्रसङ्गबाट लतमायाले पनि नारी भएकै कारण दोस्रो दर्जा पाएकी हो । यसरी कथामा घटित सम्पूर्ण घटनाहरूलाई नियाल्दा वर्गीय कारणले सीमान्तीकृत बन्न पुगेका पात्रका रूपमा शिवनारान र उसको परिवारको प्रतिनिधित्व देखिन्छ भने नानीथँकु, लतमाया र रञ्जनादेवीको प्रतिनिधित्व लैड्गिक कारणले सीमान्तीकृत पात्रका रूपमा भएको छ ।

सीमान्त समुदायका आवाज र प्रतिरोधी चेतना

यस उपन्यासमा शिवनारानको परिवार निम्न वर्ग भएकै कारण उच्च वर्गका डाक्टर गोदत्त प्रसाद र सुरमान सुब्बावट उपेक्षित र उत्पीडित बनेको छ । सुरमान सुब्बा र डाक्टर गोदत्त प्रसादको हेपाहा र मिचाहा व्यवहारबाट शिवनारानको परिवारले निकै सास्ती र अपमान भोग्नु परेको छ । उत्पादन कम भएको अवस्थामा पनि सुब्बाका छोराहरूले कडिकडाव गरी तमसुक बनाउन लगाउँदा अष्टनारान, शिवनारान वा परिवारका अन्य कुनै पनि सदस्यले प्रतिवाद गर्न सकेका छैनन् । हर्षनारान र पुननारानले आफ्नो ज्याला समयमै पाउँन नसक्दा पनि बोल्न सकेका छैनन् । बाबुको मृत्युपछि पनि डाक्टर गोदत्त प्रसाद दिनहु आफ्नो घर धाइरहनुको कारण उनको कुदृष्टि आफ्नी बहिनीमाथि रहेकोले नै हो भन्ने कुरा जान्दाजान्दै पनि उपकारको गुनले थिचिएको शिवनारानले कुनै प्रतिवाद गर्न सकेको छैन । डाक्टर गोदत्तप्रसाद दिनहुँ आफ्नो घर आइरहने सन्दर्भमा शिवनारानले नानीथकुँ र आमासँग आफ्नो आवेग पोखे पनि गोदत्त प्रसादसँग भने कुने प्रतिक्रिया जनाउन सकेको छैन । खेतबाट चाँडै फकेको दिन डाक्टर गोदत्त प्रसादलाई आफ्नै घरबाट फर्किदै गर्दा होस् वा रोपाइको दिन डाक्टर पानसुपारी बोकेर खेतमै गई नानीथकुँसँग हिलो छयाप्दा होस् रिसले भित्रभित्रै मुर्मुरिए पनि शिवनारानले कुनै प्रकारको प्रतिरोध गर्न सकेको छैन । नानीथकुँसँग हिलो छयाप्दा होस् रिक्त भिन्नभित्रै मुर्मुरिए पनि शिवनारानले कुनै प्रकारको प्रतिरोध गर्न सक्तेको छैन । नानीथकुँसँग हिलो छयाप्दा होस् रित्सले भित्रभित्रै मुर्मुरिए पनि शिवनारानले कुनै प्रकारको प्रतिरोध गर्न सकेको छैन । नानीथकुँसँग हिलो छयाप्दा होस् रिसले भित्रभित्रै मुर्मुरिए पनि शिवनारानले कुनै प्रकारको प्रतिरोध गर्न सकेको छैन । नानीथकुँ त्र समेत शिवनारानले उनलाई दिनहु आफ्नो घरमा आउनबाट रोक्न नसक्नुका साथै उसका अक्षम्य अपराधहरुप्रति कुनै किसिमको प्रतिकार गर्न सकेको छैन । आफ्नी बहिनीमाथि कुदृष्टि लगाउनेको अत्याचार मुकदर्शक भएर सहेको छ ।

डाक्टर गोदत्त प्रसादको अत्याचार र अनीतिप्रति निरीह बनेको शिवनारानमा सुरमान सुब्बा र रामबहादुरको प्रसङ्गमा भने केही मात्रामा प्रतिरोधी चेतना पनि देखिन्छ । नानीथकुँसँग सुरमान सुब्बाको विवाह गराउन रामबहादुरले ल्याएको प्रस्ताव सम्बन्धमा शिवनारान बाचाल देखिएको छ । उसले रामबहादुरको प्रस्ताव अस्वीकार मात्र गरेका छैन यस्तो कुचेष्टा गरेकोमा सुरमान सुब्बाको निन्दासमेत गरेको छ । सुरमान सुब्बासँग नानीथँकुको विवाहको प्रस्ताव ल्याएर आएको रामबहादुरसँग शिवनारानले सशक्त प्रतिवाद गरेको छ । शिवनारानका निम्नलिखित अभिव्यक्तिले उसको प्रतिरोधी चेतनाको प्रतिनिधित्व गरेको छ ।

अलि मुख समालेर बोल्न सिक्नुस्, रामबहादुरजी धेरै सहनु भनेको जल्लाई पनि गाह्रो हुन्छ, तपाई यसलाई पनि विचार गर्नु होला । किसानमाथि व्यङ्ग्य हानेर तपाई यस्तो उपेक्षित कुरा नगर्नु होला रामबहादुरजी !तपाईलाई यो पनि बताई दिन चाहन्छ – एक चोटिलाई मैले क्षमा गरेको छ (९०) ।

किसान अरु थोक केही नभए तापनि तपाईको अन्नदाता हो, आफ्नो पसिना बगाएर समाज र देशलाई पाल्ने र रगत दिएर संसारलाई जिन्दगी दिइरहने एउटा त्यागी र तपस्वी जाति हो । अभ्र योभन्दा पनि बढता तपाई थाहा पाउन चाहनुहुन्छ भने पसिनाको परिश्रम र बलिदानको नातामा संसारमा सबैभन्दा ठूलो किसान हो, जसलाई तपाई ईश्वर भन्न चाहनुहुन्छ कि परमेश्वर अथवा अथवा जे भन्नुस् । बडो गर्वका साथ रामबहाद्रले भने (९०) ।

धम्की देखाउने बानी हटाउनुहोस् रामबहादुरजी ! किसानकन छोरामा जागृति आइसकेको छ । जमाना पहिचान्ने बुद्धिमानी गर्नोस् (९१) ।

म फोरे एक पटकलाई क्षमा गर्छ, रामबहादुरजी ! कदापि फोरे यस्तो लवज ननिकाल्नुहोला । म यसलाई गाली सम्भन्छु । म यो पनि भनिदिन्छु – फोरे यस्तो बकबक गर्नु भयो भने नतिजा यति नराम्रो हुनजान्छ कि मैले काबुमा ल्याउन नसकने हुन जान्छ (९१) ।

राम बहादुरले यति भन्नासाथ शिवनारान रिसले आगो भई जरुक्क उठेर राम बहादुरको गर्दन समाउन पुगे । दुबै हातले ड्याँच्च समाउँदै शिवनारानले भने, "भन्– साले अव के चाहन्छस तँ ?"(९२)

साले ! यस पटकलाई पनि तलाई दया भयो, माफ भयो, जा (९२) ।

शक्तिशाली देखिएको पुरुष वर्गको वर्चस्व र सत्तालाई उपन्यासमा स्वाभाविक रूपमा स्वीकार गरिए पनि नारी पात्रहरूमा थोरै भए पनि प्रतिरोधी चेतना देखाइएको छ । नानीथकुँले शिवनारानसँग, रञ्जना देवीले डाक्टर गोदत्त प्रसादसँग, लतमायाले शिवनारानसँग थोरै भएपनि प्रतिरोधको स्वर उकेलेका छन् भने हाकुमायाले रामबहादुरलाई हप्काएकी छन् । अष्टनारान र शिवनारानमा पनि थोरै भए पनि प्रतिरोधी चेतना देख्न सकिन्छ । मृत्युसंस्कारमा गरिने भोजभतेर, दानदक्षिणा र विवाह संस्कारमा गरिने देखावटी आडम्वरले निम्न वर्गको अहित गरेको भन्दै अष्टनारान र शिवनारानले यस्ता कुप्रथाको विरोध र वहिस्कार गरेर सामाजिक रूपले प्रतिरोधी चेतना उजागर गरेका छन् । डाक्टर गोदत्तप्रसादका अमर्यादित र छाडा गतिविधिको विरोध गर्न नसक्ने शिवनारानले रामबहादुरको गर्दन समात्ने साहस भने गरेका छन् । किसानमा पनि चेतनाको लहर आइसकेको भन्दै उनले अब अन्याय र अत्याचार र शोषण सहेर नबस्ने सन्देश दिएका छन् । त्यसै गरी पैसा र सम्पत्तिको बलमा नानीथकुँसँग विवाह गर्न खोज्ने डाक्टर गोदत्त प्रसाद र सुरमान सुब्बाको योजना विफल तुल्याउनुमा होस् अथवा समाजका कुप्रथाहरु हटाउनमा होस् शिवनारानको प्रतिरोधी चेतनाकै भूमिका रहेको देखिन्छ ।

यसरी एउटा सीमान्तीय ज्यापू परिवारको अपहेलित र उपेक्षित जीवन, बाच्नका लागि उनीहरूले गर्नुपरेको सङ्घर्ष, शक्तिशाली वर्गका कारण भोग्नु परेको अपमान, उपेक्षा र शोषण आदिको मार्मिक चित्रण यस उपन्यासमा गरिएको छ । वर्गीय रूपले सीमान्तीकृत अष्टनारान, शिवनारान र उसको परिवार र लैर्ड्शगकरूपले सीमान्तीकृत नानुथकुँ, रञ्जनादेवी र लतमायाको पहिचान र प्रतिनिधित्वलाई देखाउनुका साथै तिनीहरूमा देखापरेको प्रतिरोधी चेतनाको समेत सूक्ष्म चित्रण गरिएकोले प्रस्तुत उपन्यास सीमान्तीय अध्ययनका दृष्टिले महत्वपूर्ण बनेको छ ।

निष्कर्ष

एक चिहान उपन्यासमा सीमान्त समुदायको प्रतिनिधित्व सघन रूपमा रहेको प्रस्ट हुन्छ । प्रतिनिधित्व र पहिचानका दृष्टिले यस उपन्यासका पात्रहरु अष्टनारान, शिवनारान, नानीथँकु, लतमाया, हाकुमाया, पुननारान, हर्ष नारानले सीमान्तीय वर्ग तथा डाक्टर गोदत्त प्रसाद र सुरमान सुब्बाले शक्तिशाली उच्च वर्गको प्रतिनिधित्व गरेका छन् । उच्चवर्गले निम्नवर्गलाई तथा पुरुषले महिलालाई विभिन्न बहानामा शोषण, अन्याय, अत्याचार र दमन गरी सीमान्त अवस्थामा पुऱ्याइएका छन् । समाजमा सुरमान सुब्बा र डाक्टर गोदत्त प्रसादजस्ता शक्तिशाली वर्गको आधिपत्य रहेको र त्यही वर्गले विभिन्न बहानामा सीमान्त अवस्थामा पुऱ्याइएका पात्रहरू आफ्नो पहिचानका लागि सङ्घर्षरत रहेको यस उपन्यासमा देखाइएको छ । सीमान्त समुदायका केही पात्रहरूमा सामान्य प्रतिरोधी चेतना रहेको पाइए पनि धेरैजसो पात्रहरू आवाजविहीन अवस्थामा बाँच्न विवश देखिन्छन् । सीमान्त पात्रहरूले आफ्नो बलियो पहिचान बनाउन सकेका छैनन । शिवनारानको परिवारका पात्रहरू प्रभुत्वशाली वर्गको शोषण, दमन सहेर पहिचानविहीन बनेका छन । सीमान्त समुदायको प्रतिनिधित्व, पहिचान र प्रतिरोध चेतनाका दृष्टिमले समाजमा वर्गीय र लैङ्गिक आधारमा विभेद रहेको र सो विभेदको अन्त्य गर्नुपर्ने अभिप्राय उपन्यासमा व्यक्त भएको छ । यसरी सीमान्त समुदायको जीवनदशाको जीवन्त र मार्मिक चित्रण गर्न सफल बनेकोले सीमान्तीय अध्ययनको दृष्टिकोणले यो उपन्यास महत्वपूर्ण बनेको छ ।

सन्दर्भसामग्री सूची

गिरी, अमर (२०७०). सांस्कृतिक अध्ययनका सैद्धान्तिक आधार र अवधारणा. भृकृटी (सांस्कृतिक अध्ययन विशेषाङ्क), पूर्णाङ्क-१९. पृ. १२-४६।

बराल, ऋषिराज (२०७३). मार्क्सवाद र सबाल्टर्न अध्ययन. ललितपुर : साफा प्रकाशन

वाग्ले, मेनका (२०७७). मनु ब्राजाकीका कथामा सीमान्तीयता. दर्शनाचार्य तहको शोधप्रबन्ध, मानविकी तथा सामाजिकशास्त्र सङ्काय , नेपाली केन्द्रीय विभाग, त्रिभुवन विश्वविद्यालय ।

शर्मा, मोहनराज (२०७०). अवरजन अध्ययन र साहित्य. भृकुटी (सांस्कृतिक अध्ययन विशेषाङ्क), पूर्णाङ्क १९, पृ. ३१४-३२० ।

श्रेष्ठ, तारालाल (२०६८). शक्ति, स्रष्टा र सबाल्टर्न. काठमाडौँ : डिस्कोर्स पब्लिकेशन ।

सुवेदी, अभि (२०६८). सबाल्टर्न र बोली (भूमिका). तारालाल श्रेष्ठकृत शक्ति, स्रष्टा र सबाल्टर्न. प. xvii–xxiv

अछाम जिल्लामा विद्यमान धार्मिक, सांस्कृतिक विभेदः कारण, परिणाम र न्यूनीकरणका उपाय

शंकर प्रसाद भण्डारी

Research Scholar of Nepal Sanskrit University Research Centre Corresponding Adress: shankarbhandari202@gmail.com Article received 2022 sept 20 accepted 2022 Nov 25

लेखसार

परम्परादेखि प्रचलमा रहेका धार्मिक मत एवम् विश्वास, संस्कृति, व्यवहार चाल चलन र अभ्यास प्रत्येक समाज र समुदायलाई एक अर्कामा भिन्न गराउने प्रमुख आधार हुन् । यिनै पक्षले समाज तथा समुदायलाई विभाजित गर्दछन् । विभाजित अवस्थामा निरन्तर अस्तित्वमा रहनु समाज एवम् समुदायको एउटा महत्वपूर्ण विशेषता हो । वर्गीकृत उक्त स्वरूपलाई सामाजिक विभेदीकरण मान्न सकिन्छ । सामाजिक विभेद समाज एवम् संस्कृति अनुसार व्यक्ति, जातजाति, जनजाति, समूह, समुदायलाई हेर्ने एवम् व्यवहार गर्ने दृष्टिकोण हो । यसको सिर्जना प्रकृतिले गर्दैन । समाज एवम् संस्कृतिले गर्दछ । विभेदीकरण सम्बन्धी अवधारणा प्राचीनकालदेखि अहिलेसम्म निरन्तर रूपमा अस्तित्वमा छ । यो सर्वव्यापक अवधारणा हो । यसलाई समाज स्तरीकृत गर्ने विभिन्न आधारहरू मध्ये एउटा मान्ने गरिन्छ । प्रस्तुत लेखमा धार्मिक तथा सांस्कृतिक मूल्य मान्यताले समाजमा सिर्जना गरेको विभेदसँग जोडिएका विविध पक्षको विश्लेषण गरिएको छ । नेपालका प्रत्येक क्षेत्रीय तथा जातीय समुदाय भित्र कुनै न कुनै प्रकारको विभेद पाइन्छ । आछाम जिल्ला पनि यसबाट अछुत छैन । धार्मिक एवम् सांस्कृतिक मूल्य, मान्यताका कारण सिर्जना भएका धेरै विभेदका घट्ना र उदाहरणहरू यस जिल्लामा पाइन्छन् । सामाजिक वञ्चितीकरण, बहिष्करण र विभेदीकरणले गर्दा अछाम जिल्लाको सामाजिक संरचनामा विभिन्न प्रकारको असर परेको छ । अत: सामाजिक विभेदका कारण के के हुन् ? क्षेत्र के हो ? विभेदले के कस्तो परिणाम ल्याएको छ ? विभेद न्यूनीकरण तथा नियन्त्रण गर्न के कस्ता उपायहरू अवलम्बन गर्न सकिन्छ भन्ने विविध पक्षको विश्लेष यो लेख उद्देश्यले "अछाम जिल्लामा विद्यमान धार्मिक, सांस्कृतिक विभेद : कारण, परिणाम न्यूनीकरणका उपाय" शीर्षकको यो लेख तयार पारिएको हो ।

शब्द कुन्जिका : अछाम जिल्ला, सामाजिक वञ्चितीकरण, बहिष्करण, विभेदीकरण, सामाजिक समावेशीकरण, सामाजिक परिचालन ।

पृष्ठभूमि

अछाम सुदूरपश्चिम प्रदेशअन्तर्गत पर्ने महत्वपूर्ण पहाडी जिल्ला हो । राज्य पुनःसंरचनापछि यस जिल्लालाई दुई वटा निर्वाचन क्षेत्र तथा १० वटा स्थानीय तहमा वर्गीकरण गरिएको छ । यो जिल्ला २९° ४६ उत्तरी अक्षांसदेखि २९° २३° उत्तर र ⊏१° ३२° पूर्वी देशान्तरदेखि ⊏१° ३४° पूर्वसम्म कुल १६९२ वर्ग कि.मि क्षेत्रमा फैलिएको छ । पूर्वमा कालीकोट र दैलेख पश्चिममा डोटी, उत्तरमा बाजुरा र बभाङ्ग तथा दक्षिणमा सुर्खेत जिल्लाले सीमा निर्धारण गरेका छन् । यो जिल्ला समुन्द्री सतहदेखि न्यूनतम् ४४० मिटरको उचाईदेखि ३८२० मिटरसम्मको उचाईमा अवस्थित छ *(जि.वि.स. २०६७ पृ. २)* ।

अछामलाई प्राचीनकालमा "नौखुवा"को नामले चिनिन्थ्यो । नौखुवा शब्दले नौ वटा खण्डहरू भन्ने अर्थ बुभाउँदछ । त्यसबेला अछाम विभिन्न नौ वटा खण्डहरूमा विभाजित थियो । नेपालको एकीकरणको समयमा अछाम बाईसी राज्य समूहको एउटा

एकाई सदस्यको रूपमा रहेको थियो। कर्णाली प्रदेशमा नागराजवंशीय मल्लहरूले शासन गर्नुपूर्व अछाममा पालहरूले शासन गरेका थिए। त्यसपछि मल्लहरूको शासनकालमा अछाममा सभ्यताको विकास भयो । तत् पश्चात उनीहरूको शक्ति कम हुदै जाँदा कर्णाली र गण्डकी प्रदेशमा स-साना राज्यहरू खडा भए । यसै क्रममा अछाम पनि स्वतन्त्र हिन्दू राज्यको रूपमा स्थापना भएको थियो। अछाम क्षेत्र मध्य कालमा बिकसित भएको खस सभ्यताको उद्गम स्थल हो ।

राणाकालमा अछाम छुट्टै जिल्ला थिएन । कैलाश नदीलाई सीमा पारी पूर्व तर्फको दैलेख र पश्चिम तर्फको क्षेत्र डोटीको अधिनमा थियो । वि.स. २०१४ मा अछामका दुवै भाग एकीकरण भई डोटीअन्तर्गत राखियो । पछि वि.स. २०१८ मा नेपाललाई १४ अञ्चल ७४ जिल्लामा विभाजन गर्दा अछाम छुट्टै जिल्लाका रूपमा स्थापित गरिएको थियो । त्यसबेला अछामभित्र ३९ वटा गाउँ पञ्चायत पर्दथे । वि.स. २०२६ मा अछामलाई ४४ वटा गाउँ पञ्चायतअन्तर्गत विस्तार गरियो । वि.स. २०३८ मा डोटीका ३३ वटा गाउँ पञ्चायत पनि अछामअन्तर्गत गाभिए । यस पछि अछाममा गाउँ पञ्चायतको सङ्ख्या ६७ पुग्यो । वि.स. २०३८ मा उक्त संरचनालाई परिमार्जित गरी गाउँ पञ्चायतको सङ्ख्या ७४ पुऱ्याइयो *(सुवेदी, २०४८, पू. १४)* । राज्य पुर्न संरचना पछि अछामलाई सुदूरपश्चिम प्रदेशअन्तर्गत राखियो । हाल यस जिल्लामा ४ वटा नगरपालिका र ६ वटा गाउँपालिका गरी १० वटा स्थानीय तह छन् ।

अछाम नाम रहनुको कारणको सम्बन्ध राजकुमार अक्षय मल्लसँग पनि जोड्ने गरिन्छ। राजकुमार अक्षय मल्ल कर्णाली प्रदेशका राजा जितारी मल्लका जेठा छोरा थिए। यिनी राजकाज सम्बन्धी सम्पूर्ण कुरा त्यागी परिभ्राजक महन्त वा भिक्षु भई तिब्बत तिर लागे। त्यस्ता महात्माको सम्भनामा नौ खुवा क्षेत्रलाई अक्षय मल्ल भूमि मान्न थालियो। पछि अक्षय मल्लबाट अक्षयम हुँदै अछाम हुन गएको हो *(सुवेदी, २०४८, पृ. २८)*।

अछाम नामकरणको सम्वन्ध अछामी राजाको प्रारम्भिक राजधानी सेरा वुढी धर्पुसँग पनि जोडिने गरिन्छ । सेरा वुढी धर्पूवाट केही तल पास्तोली गाडवाट खसेका तीन वटा छहरामध्ये एउटा अलि ठूलो र कहाली लाग्दो छहरा हो । ती तीनवटा छहराको मुहानलाई प्राचीनकालमा अस्माम्वु भनिन्थ्यो । उक्त स्थानमा प्रत्येक वर्ष माघे संक्रान्तिमा ठूलो मेला लाग्दछ। त्यही अस्मावु शब्दवाट अपभ्रंसभई अस्माम्व, अछाम्म र अछाम भएको हो*(सुवेदी, २०५८, पृ. २७)* ।

डोटी जिल्लाको ब्राह्मण खानदानका गोपाल खतिवडाभट्ट ब्राम्हणका चार भाइ छोरा थिए। कान्छा छोरा प्रभाषका छोरा देवेन्द्रको प्रेम प्रसिद्ध जुम्ली राजा अशोक मल्लकी छोरी हर्मता मैयासँग भयो। पछि दुवै वैवाहिक बन्धनमा बाँधिए। विवाह पछि केही वर्ष उनी जुम्ला बसेपछि नौखुवा राज्यपाई शासन गर्न थाले। उनीबाट जन्मेका छोरा राजा हुने र शाह पदवी समेत पाउने संस्कार बस्यो। उक्त अचम्म शब्द कालान्तरमा अपभ्रंश हुदै अछाम भनिएको हो *(अन्तर्वार्ता,सुरत बहादुर शाह, २०७४,१९२७)*।

प्राचीनकालमा भारतमा तत्कालीन मुगल सम्राज्यको चर्को दमन सहन नसकी केही भारतीय हिन्दूहरू नेपाल पसे। घुम्दै हिंड्ने क्रममा तिनीहरू नेपालको पश्चिमी क्षेत्रको नौखुवा (अछाम) पुगे। त्यसताका नौखुवा प्रशस्त मीठो आँप पाइने क्षेत्रको रूपमा परिचित थियो। अनुकुल हावापानी र प्रशस्त मिठो आँप पाईने भएका कारण भारतीयहरू नौखुवामैं बसोवास गर्न थाले। हिन्दी भाषामा मिठो आँपलाई अच्छा आँप भनिने हुँदा उक्त शब्द पछि अपभ्रंश हुँदै अछाम कहलिन गयो *(जि.वि.स. २०६७, पृ. १)*।

राजनीतिक दृष्टिले मात्र होइन, अछाम सामाजिक सांस्कृतिक रूपमा पनि महत्वपूर्ण क्षेत्र हो । यस क्षेत्रमा प्राचीन समयदेखि नै विशेषत : हिन्दू धर्म तथा दर्शनद्वारा निर्देशित विशेषतायुक्त समाज र संस्कृति पाइन्थ्यो । यो सांस्कृतिक परम्परा पछिल्लाकाल हुँदै आजसम्म पनि अस्तित्वमा छ । त्यसबेला स्थापना भएका कतिपय मूल्य-मान्यता, रीति-थिति, चाल-चलन, बानी-व्यवहार हिजोआज पनि अभ्यासमा छन् । धर्म, दर्शन, संस्कृति तथा परम्पराका आधारमा अछाम क्षेत्रमा प्राचीन समयदेखि नै छुवाछुत, ठूला साना तथा उचनिच जस्ता विभेदपूर्ण रीतिथिति थिए । त्यस्ता कतिपय विभेदजन्य परम्पराहरू वर्तमानमा पनि प्रचलनमा छन् । समाजमा विभेद, बहिष्कार र वञ्चित गर्ने परम्पराहरू अछाम जिल्लामा के कस्ता छन् भन्ने विषयको विश्लेषण गर्ने उद्देश्यले यो लेख तयार पारिएको हो ।

अध्ययनको समस्या

• अछाम जिल्लामा विभेदको अवस्था कस्तो छ ?

- अछाम जिल्लामा विभेद सिर्जनाका कारण र आधार के-के हन् ?
- विभेदले के-कस्ता परिणाम निम्त्याउन सक्दछ ? र
- विभेद न्यूनीकरणका उपाय के-के हुन सक्दछन् ?

अध्ययनको उद्देश्य

- अछाम जिल्लामा विद्यमान विभेदको अवस्था खोजी गर्ने ।
- अछाम जिल्लामा विभेद सिर्जनाका कारण र आधारको पहिचान गर्ने ।
- विभेदले निम्त्याउने परिणामका विषयमा विश्लेषण गर्ने र
- विभेद न्यूनीकरणका उपायहरू पहिचान गर्ने ।

अध्ययन विधि

प्रस्तुत अध्ययनमा अछाम जिल्लाका विभिन्न स्थानीय तहलाई क्षेत्र छनोट गरिएको छ । त्यसैले यो अध्ययन मुलतः अछाम जिल्लामा विद्यमान रहेको धार्मिक तथा सांस्कृतिक विभेद, त्यसका कारण, परिणामसँग सम्बन्धित छ । यस अध्ययनमा गुणात्मक ढाँचालाई प्रयोगमा ल्याइएको हो । अध्ययनमा प्राथमिक तथा द्वितीयक दुवै प्रकृतिका तथ्याङ्क एवम् सूचना प्रयोग गरिएका छन् । प्राथमिक तथ्याङ्क संकलन गर्ने ऋममा अवलोकन तथा अन्तर्वाता विधिको प्रयोग गरिएको छ । अछाम जिल्लाको पटक-पटकको स्थलगत अध्ययनबाट ती तथ्याङ्कहरू संकलन गरिएका हुन् । यस ऋममा ब्राम्हण, क्षेत्री तथा दलित समुदायका जानकार व्यक्तिहरूसँग साक्षात्कार गरिएको थियो । द्वितीयक तथ्याङ्क एवम् सूचनाका लागि सम्बन्धित विषयका प्रकाशित तथा अप्रकाशित अनुसन्धान प्रतिवेदन, ग्रन्थ, लेख रचना, विद्युतीय माध्यममा समावेश भएका सामग्रीहरूको समीक्षा गरिएको हो ।

पूर्वकार्य समीक्षा

पूर्वकार्य समीक्षाले द्वितीयक प्रकृतिका तथ्याङ्क संकलन गर्न सहयोग पुऱ्याउँदछ । अध्ययन गरिएका विषयमा सैद्धान्तिक ढाँचाको निर्माणमा समेत पूर्वकार्य समीक्षा उपयोगी मानिन्छ । अत: यस अध्ययनमा अछाम सेवा समिति (२०७०) को सौराइ अछामको, गंगादत्त अवस्थी (२०९१), सामाजिक परिचालनमा सामाजिक परिचालकको भूमिका र चुनौति, गोपीकृष्ण खनाल(२०९९) को रूपान्तरणीय सामाजिक परिचालनको प्रयोग, गोविन्द प्रसाद गुरागाई (२०९१) को स्थानीय एवम् सामुदायिक विकास कार्यक्रम तथा अभियानमा समावेशीकरण तथा सामाजिक परिचालकहरूको भूमिका : एक विश्लेषण, लोकनाथ दुलाल (२०९९) सामाजिक विभेदीकरणका क्षेत्र, कारण एवम् न्यूनीकरणका निम्ति सामाजिक परिचालन, जिविस (२०६७) को जिल्ला पार्श्वचित्र, राजाराम सुवेदी (२०५८) को अछामको इतिहास, स्थानीय विकास प्रशिक्षण प्रतिष्ठान (२०९९) को सहभागिता जस्ता ग्रन्थ तथा लेख रचनाहरूको समीक्षा गरिएको छ । यी स्रोत सामग्रीहरूबाट विभेदीकरण वञ्चितीकरण, वहिष्करण, विभेदका क्षेत्र तथा कारण, विभेद न्यूनीकरणका उपाय जस्ता विविध पक्षको तथ्याङ्क एवम् सूचना संकलन गरिएको हो । यसवाहेक अछाम जिल्लाका ऐतिहासिक पृष्ठभूमि, नामकरण, भौगोलिक तथा सामाजिक सांस्कृतिक विषयको जानकारी उक्त सामग्रीहरूबाटै संकलन गरिएका हुन् ।

विभेदीकरणको अर्थ

संसारमा समाज एवम् समुदायको स्वरूप र संरचनामा विभिन्नता पाइन्छ । भौगोलिक विविधता र विशेषता, प्रचलित मूल्य-मान्यता र व्यवहार एवम् परम्परागत आस्था र विश्वास जस्ता तत्वले उक्त पार्थक्य सिर्जना गरेका हुन् । त्यो विभिन्नता र

त्यसका आधारमा गरिने ठूलो सानो तथा उचनिच जस्तो व्यवहार विभेदीकरण हो । यो अवधारणाको इतिहास लामो छ । प्राचीनकालदेखि अहिलेसम्म कुनै न कुनै रूपमा समाजमा अस्तित्वमा देखिन्छ । यो सर्वव्यापक अवधारणा पनि हो । यसलाई समाज स्तरीकृत गर्ने विभिन्न आधारहरूमध्ये एउटा मान्ने गरिन्छ । सामान्यतः प्राकृतिक दृष्टिले महिला र पुरुषमा हुने भिन्नता छुट्टै कुरा हो, तर समाज र संस्कृतिले निर्माण गरेको भिन्नता एवम् फरकपना भने अस्वाभाविक हुन् । समाज एवम् संस्कृतिअनुसार संसारमा विभेदीकरणको स्वरूप फरक फरक हने गर्दछ ।

नेपालको संविधानले पनि विभिन्न आधारमा हुने विभेद र भेदभाव स्वीकार गरी त्यसलाई दण्डनीय मान्दै जात, जाति, भाषा, धर्म, लिङ्ग, वर्ग, वर्ण, पेसा, शारीरिक अवस्था, क्षेत्र, वैचारिक आस्था आदिजस्ता आधारमा एक अर्कालाई हेर्ने तथा व्यवहार गर्ने सोच, चिन्तन र दृष्टिकोण विभेद हो भनेको छ *(नेपाल सरकार, २०७२, पृ. ८-९)* ।

साधारणत : प्राकृतिक रूपमा नभई सामाजिक एवम् सांस्कृतिक रूपमा निर्माण गरेको भिन्नता र सोही अनुसार म ठूलो तँ सानो, म उच्च कुलिन वर्गको तँ सानो र निम्न वर्गको भन्ने जस्ता स्तर सिर्जना गरि त्यसैका आधारमा गरिने व्यवहारलाई सामाजिक विभेद भन्न सकिन्छ । सामाजिक विभेद समाज एवम् संस्कृतिअनुसार व्यक्ति, जातजाति, जनजाति, समूह, समुदायलाई हेर्ने एवम् व्यवहार गर्ने दृष्टिकोण हो । यसको सिर्जना प्रकृतिले गर्दैन । समाज एवम् संस्कृतिले गर्दछ *(दुलाल, २०७१, पृ. ५३)* ।

विभेद समान अवस्था होइन, असमान अवस्था हो । यसलाई एक अर्का व्यक्ति, समूह, परिवार, समुदाय बीचमा भिन्न देखाउने आधार मानिन्छ । यो एउटा व्यक्ति, समूह, परिवार, समाज, समुदाय र समग्र राष्ट्रलाई अर्को व्यक्ति, समूह, परिवार, समाज, समुदाय र राष्ट्रवाट पृथक राख्ने अवधारणा हो । विभेदले पृथकीकरण, बहिष्करण, वञ्चितीकरण, विविधिकरणको अवस्था सिर्जना गर्न मद्दत गर्दछ । विभेद एकीकृत र संगठीत हुने धारणा विपरित मान्यता हो । यसले अलग, फरक, पार्थक्य, अन्तर, भिन्न, खण्ड, विभक्त, विविध जस्ता पक्षसँग सम्बन्ध राख्दछ । यो प्राकृतिक तथा सांस्कृतिक दुवै स्वरूपको हुन्छ । प्राकृतिक विभेद प्रकृतिद्वारा प्रदत्त भिन्नता हो । यसलाई जैविकीय विशेषता मानिन्छ । सांस्कृतिक विभेद धर्म, संस्कृति, परम्पराले स्थापना गरेको मूल्य मान्यता हो । समाज र संस्कृतिमा प्रचलित व्यवहारले यसको सिर्जना गर्दछ । यो समाज संस्कृतिअनुसार फरक-फरक हुन्छ । त्यसो हुँदा यो सामाजिक सांस्कृतिक विशेषता हो । मानिसहरू बीचमा समाजमा देखिएको ठूलो सानो, छुवाछुत, उचनिच जस्ता सोच चिन्तन र व्यवहार यसअन्तर्गत पर्दछन् । यो परिवर्तनशील छ । यसलाई घटाउन र हटाउन सकिन्छ ।

नेपालमा पनि सामाजिक एवम् सांस्कृतिक आधारमा सिर्जना गरिएका विभेदपूर्ण अवस्था प्राचीनकालदेखि नै अस्तित्वमा रहँदै आए । हाम्रा परम्परागत मूल्य-मान्यता, धर्म-धार्मिक विश्वास, परम्परा-संस्कृति, रीति-थिति चाल-चलन, बानी-व्यवहार आदिजस्ता कारणले सदियौंदेखि सिर्जना गरेका सामाजिक विभेदहरू छन् । हामीकहाँ एउटैं परिवार समुदाय, जाति, धर्म भित्र पनि सामाजिक विभेद भेटिन्छ । एउटै घर परिवारमा छोरा एवम् छोरीलाई अर्थात परिवारका सदस्यहरूलाई हेर्ने दृष्टिकोण र व्यवहारमा भिन्नता पाइन्छ ।

विभेदीकरणका क्षेत्र

सामाजिक विभेदका क्षेत्र प्राचीन समयमा त्यति धेरै थिएनन् । त्यसबेला समाज, दास, भू सम्पत्ति, जाति र सामाजिक वर्ग गरी चार भागमा वर्गीकृत थियो । त्यसैका आधारमा विभेद हुने गर्दथ्यो । समाजमा बृद्धि हुँदै गएको जटिलताका कारण विभेदका क्षेत्रहरू थपिँदै गए । समाज विकासको ऋममा १८/१९औं शताब्दीताका यो अवस्थामा अभ्र बढी व्यापकता आयो । समाज र संस्कृतिअनुसार विभेद सिर्जना गर्ने थरी थरीका क्षेत्रहरूको जन्म भयो । वर्ण, धर्म, जातजाति, संस्कृति, उमेर, आर्थिक क्षमता, मनोविज्ञान, विचार, दर्शन, शक्ति, पेशा, शैक्षिक अवस्था, भू स्वामित्व, वर्ग, बसोबासको प्रकृति आदिजस्ता अनेकन पक्षले समाज एवम् समुदायमा व्यक्ति व्यक्ति, परिवार परिवार, समाज समुदाय र संस्कृति बीचमा भिन्नता ल्याइदिएको छ *(दुलाल, २०७१, पू. ५३)* । सामान्य विभेद मात्र होइन, यी पक्षका आधारमा कतिपय व्यक्ति, परिवार, समाज, संस्कृति, बीचमा ठूला-ठूला द्वन्द्व भएका उदाहरण पाइन्छन् । एक अर्का बीचमा बम बारुद पड्काउने, हिंसा हत्या भड्काउने जस्ता अमानवीय कियाकलापहरू पनि हुँदै आएको देखिन्छ । वर्तमान समयमा पनि यस किसिमका द्वन्द्वहरू साम्य भएका छैनन् । नयाँ नयाँ

क्षेत्रहरू सिर्जना गरी सामाजिक विभेदीकरणलाई भून बढी महत्व दिन थालिएको छ । संसारमा हिजोआज गरिदै आएका सामाजिक क्रियाकलापहरूले पनि यसै विषयलाई पुष्टि गर्दैछन् ।

सामाजिक बहिष्करण, वञ्चितीकरण र विभेदीकरण समाज एवम् समुदायमा लामो समयदेखि स्थापित संस्कृतिले सिर्जना गरेको एक अर्कालाई बुभ्फ्ने, व्यवहार गर्ने र हेर्ने दृष्टिकोण हो । समग्रमा यसलाई एउटा व्यक्तिले अर्को व्यक्ति, एउटा धर्मले अर्को धर्म, एउटा आर्थिक संरचना भएको मानिसले अर्को, एउटा समाज समुदाय र संस्कृतिले अर्को समाज, समुदाय र संस्कृतिलाई हेर्ने दृष्टिकोण र सम्पादन गर्ने व्यवहार मान्नु पर्दछ । व्यक्तिले घर परिवार, समाज, समुदायमा सम्पादन गर्ने व्यवहार निर्देशित र नियन्त्रित गर्ने प्रमुख आधार एवम् तत्व धेरै हदसम्म उसको संस्कृति र उसलाई मानव रूपमा रूपान्तरण गर्ने सम्बन्धित सांस्कृतिक वातावरण हो । अतः मानिस र उसले अर्को व्यक्तिमाथि हेर्ने बुभ्ग्ने बोल्ने, सुन्ने व्यवहार गर्ने दृष्टि, सोच, शैली, तौर तरिकालाई सामाजिक विभेदीकरणको प्रमुख आधार एवम् क्षेत्रका रूपमा लिन सकिन्छ । तर वर्तमान विश्व समाजमा जातजाति, धर्म, भाषा, संस्कृति भन्दा पनि आर्थिक संरचना विभेदीकरणको सबैभन्दा सशक्त क्षेत्र एवम् आधार बन्दै आएको छ । संसारको इतिहास तथा घटनाकमले पनि यस सन्दर्भलाई पुष्टि गर्दैछन् । विश्वमा आर्थिक रूपले आफूलाई सम्बृद्ध ठान्ने मुलुकहरूले आफूसँग भएको स्रोत साधन र आर्थिक दम्भकै कारण अर्को मुलुकलाई हरेक दृष्टिकोणले विभेद गर्ने गरेका छन् । आफ्नो प्रभुत्व स्थापित गर्ने प्रयास निरन्तर भइरहेको छ *(दुलाल, २०९, पृ. ४३-४४)* ।

नेपालको सन्दर्भमा आन्तरिक रूपमा देखिएको सामाजिक विभेदको एउटा बलियो आधार एवम् क्षेत्र पनि आर्थिक संरचना नै हुन सक्दछ । वर्तमान सन्दर्भमा हाम्रो मुलुकमा देखिने र पाइने सामाजिक बहिष्करण, वञ्चितीकरण र विभेदीकरणलाई सुक्ष्म रूपमा विश्लेषण गर्ने हो भने धर्म, लिङ्ग, भाषा, संस्कृति आदिभन्दा आर्थिक संरचना र अवस्था सो को निकै सशक्त कारण र आधार हुन सक्ने सम्भावना देखिन्छ । यो एउटा बहसको विषय हो । भोलिका दिनमा गरिने शोधखोज र अध्ययन अनुसन्धानहरूले यसलाई पुष्टि गर्ने सम्भावना छ । व्यक्ति तथा परिवारको आर्थिक अवस्था र संरचनाकै आधारमा एक अर्कामा हेर्ने र व्यवहार गर्ने दृष्टि, तौर तरिका र शैलीहरू फरक फरक पाइन्छन् । एउटै धर्म मान्ने, भाषा बोल्ने, संस्कृतिअनुसार जीवन निर्वाह गर्ने, समान प्राकृतिक लिङ्ग भएका व्यक्ति, परिवार जब आर्थिक रूपमा एउटा अत्यन्त सम्भ्रान्त, कुलीन र धनी र अर्को कमजोर, असहाय र गरीब छ भने त्यसबेला आफू ठूलो हुँ भन्नेले अर्कोलाई हेर्ने र व्यवहार गर्ने दृष्टिकोण र शैली फरक हुने गरेको देखिन्छ ।

आर्थिक रूपले कोही व्यक्ति वा परिवार समान छन् तर तिनीहरूमा धर्म, भाषा, लिङ्ग, संस्कृति आदिमा भिन्नता छ, तापनि उनीहरूले एक अर्कामा गर्ने व्यवहार, हेर्ने दृष्टिकोण सामान्य हुने गरेको पाइन्छ । त्यति मात्र होइन, हिजो आज आर्थिक रूपमा सम्पन्न भए जो कोही सँग सामाजिक तथा वैवाहिक सम्बन्ध जोड्न थाल्ने चलनको थालनी भई संकेको छ । सँगसँगै उठवस र खानपिनमा कुनै पनि मुल्य मान्यताले रोक्न, अवरोध पुऱ्याउन र छेकबार लगाउन छाडेको अवस्था छ । कमजोर आर्थिक अवस्था र संरचना भए संकेसम्म त्यस्ता व्यक्ति र परिवारलाई छि छि र दुर दुर गर्ने, नाक खुम्च्याउने, सत्संग नगर्ने, ऐचो पैचो, सरसापट लिने दिने नचलाउने र भर नगर्ने जस्ता घटनाकमले समाजमा महत्व पाउन थालेका छन् । आर्थिक रूपले सम्पन्न छ भने जुनसुकै लिङ्ग, धर्म, भाषा, जात र संस्कृतिको भएपनि उसले शासन गर्ने र आफ्नो प्रभुत्व कायम गर्दे जाने परम्परा क्रमश: स्थापित हुँदै आएको छ । वास्तवमा यति बेला समाजमा देखिने र पाइने घटना कम एवम् व्यवहारहरूले सामाजिक बहिष्करण, बञ्चितीकरण र विभेदीकरणको मुल क्षेत्र र आधार भनेको आर्थिक अवस्था र संरचना नै हो भन्ने विषयलाई पुष्टि गर्न मद्दत गरेका छन् *(दुलाल, २०९, पृ ४४-४४)* ।

नेपालको संविधानले धर्म, वर्ण, जातजाति, लिङ्ग, आर्थिक अवस्था, भाषा, क्षेत्र, वैचारिक आस्था वा यस्तै अन्य पक्षलाई विभेदका प्रमुख क्षेत्रका रूपमा उल्लेख गरेको छ *(नेपाल सरकार, २०७२, पृ. ७-८)*। समग्रमा नेपाली समाजमा आर्थिक, धार्मिक, जातीय संरचना, शारिरीक वर्ण, संस्कृति एवम् सांस्कृतिक परम्परा, विचार एवम् दर्शन, पेशा तथा व्यवसाय, लिङ्ग एवम् लैङ्गिक क्षेत्र जस्ता पक्षलाई विभेद सिर्जनाका मुलभूत आधार मानिन्छ । यी पक्षले ब्राम्हण-ब्राम्हण, ब्राम्हण-क्षत्री, क्षत्री-क्षत्री, गैर दलित-दलित र दलित-दलित बीचमा विभेद सिर्जना गरेका छन् ।

अछाम जिल्लामा धार्मिक तथा सांस्कृतिक विभेदको अवस्था

अछाम प्रदेश नं ७ अन्तर्गत पर्ने महत्वपूर्ण पहाडी जिल्ला हो । राज्य पुर्न संरचनापछि यस जिल्लालाई दुई वटा निर्वाचन क्षेत्र तथा १० वटा स्थानीय तहमा वर्गीकरण गरिएको छ । ती स्थानीय तह चारवटा नगरपालिका र ६ वटा गाउँपालिकामा विभक्त छन् । यहाँ क्षत्री, कामी, दमाई, ब्राम्हण, ठकुरी, सार्की, लोहार, सुनुवार, गाइने, बार, डोम जस्ता जातजाति जनजातिहरूको बसोबास छ । यस जिल्लामा हिन्दू २३०८९२, बौद्ध ९१, इस्लाम १४४, किँरात १९, जैन ४२, शिख २, बहाइ १३ र अन्य ६३ जस्ता धार्मिक मतमा विश्वास गर्नेहरू बसोबास गर्दछन् *(जि.वि.स. २०६७, पृ. २६)* । माथि उल्लिखित विभिन्न क्षेत्र एवम् आधारहरू नै यस जिल्लामा विभेद सिर्जनाका प्रमुख पक्ष हुन् ।

अछाम मुलतः हिन्दू धर्म तथा सांस्कृतिक परम्पराबाट निर्देशित र नियन्त्रित जिल्ला हो । यहाँ विभेदजन्य जे जस्ता अवस्था अस्तित्वमा छन् त्यसको प्रमुख आधारका रूपमा धर्म र संस्कृतिलाई लिने गरिन्छ । यस जिल्लामा गैर दलित र दलित, महिला र पुरुष बीचमा मात्र विभेद छैन । उपाध्याय ब्राम्हण र जैसी ब्राम्हण, ब्राम्हण क्षेत्री, क्षत्री क्षत्री, गैर दलित र दलित तथा दलित दलित बीचमा पनि विभेद पाइन्छ । व्यक्तिको नाम राख्दादेखि धार्मिक सांस्कृतिक अनुष्ठान सम्पन्न गर्ने कार्यमा समेत विभेद देखिन्छ ।

उपाध्याय ब्राम्हण जैसी ब्राम्हणले छोएको खाँदैनन् । आफूभन्दा जैसी ब्राम्हणलाई तल्लो वर्गको ठान्दछन् । ब्राम्हण भए पनि ब्राम्हण कुलकै कसैको मृत्यु हुँदा लास बोक्न सबैले पाउँदैनन । सगोत्रीले मात्र बोक्नु पर्दछ । क्षत्री क्षत्रीका बीचमा पनि विभेद छ । क्षत्री जनैवाली र मतवाली दुई प्रकारका पाइन्छन् । जनैवाली जनै धारण गर्ने हुन् । यसअन्तर्गत रावल, कुँवर, विष्ट, स्वाँर आदि पर्दछन् । मतवाली क्षत्री जनै लगाउँदैनन । धामी, साउद, बोहोरा, खत्री, रोकाया यसअन्तर्गत पर्दछन् । जनैवालीले आफुलाई ठूलो ठान्दछन् । मतवालीका बीचमा विवाहवारी चलाउँदैनन *(अन्तर्वाता, चेतराज बजगाई, २०७४।१२१२४)* ।

गैर दलित (ब्राम्हण क्षत्री) र दलितका बीचमा ठूलो विभेद छ । नामकरण, खानपान, विवाह, व्रतबन्ध, मृत्यु संस्कार जस्ता संस्कारगत कर्म, भोज भतेर, चाडपर्व, उत्सव मनाउँदा, बोलीचाली भाषा, पोशाक तथा पहिरन आदिजस्ता पक्ष र क्षेत्रमा गैर दलित र दलितका बीचमा विभेद, बहिष्कार र वञ्चितजन्य व्यवहारहरू पाइन्छन् । दलितलाई गैर दलितका घरमा प्रवेश निषेध हुन्छ । दशैं मनाउने क्रममा घरको लिपपोत गरिसकेपछि दलितले उक्त घर छुनु हुँदैन । दलित भएकै कारण मठ मन्दिर प्रवेश तथा पूजाआजा गर्न पाइदैन । सामाजिक सभा, भेलामा बहिष्कार, नाम राख्दा प्रसाद, कुमार, राज, नाथ जस्ता शब्द प्रयोगमा प्रतिबन्ध, बाहुनका घरबाट दुध, दहि, घिउ जस्ता पदार्थ ल्याउन र खानमा निषेध, मलामी जान र लास बोक्न प्रतिबन्ध, दलितको मृत्यु हुँदा शंख बजाउन निषेध, ब्राम्हण क्षत्रीले प्रयोग गर्ने कुवाको पानीमा प्रतिबन्धजस्ता क्षेत्रमा विभेद र निषेधको अभ्यास छ *(अन्तर्वाता, विष्ण् प्रसाद भण्डारी, २०७५१९२।२५)* ।

यस जिल्लामा गैर दलित तथा दलितका बीचमा मात्र होइन, दलित दलित बीच खासगरी कामी, दमाई, सार्की, वादी जस्ता समुदायका बीचमा पनि विभेद र निषेध जन्य क्रियाकलापहरू प्रचलनमा छन्। यी समुदाय बीचमा पनि ठूलो र सानोको विभेद छ । कामीले आफूलाई अन्य दलितहरू भन्दा माथिल्लो ठान्दछन् । अन्यसँग वैवाहिक सम्बन्ध चल्दैन र चलाउँदैनन् । कामी अन्य दलित समुदायको मृत्य् हँदा मलामी जाँदैनन् र लास बोक्दैनन् *(अन्तर्वाता, महेन्द्र वि.क., २०७४।१२।२६)* ।

लैङ्गिक आधारमा महिला र पुरुष बीचमा यस जिल्लामा ठूलो विभेद छ । ब्राम्हण, क्षत्री, दलित जुनसुकै जातीय समुदाय भित्र पुरुषको तुलनामा महिलालाई वञ्चित र विभेद गरिएका क्षेत्र धेरै छन् । आर्थिक, सामाजिक, राजनीतिक, शैक्षिक, धार्मिक आदिजस्ता क्षेत्र प्रमुख हुन् । पुरुषको तुलनामा सम्पत्ति सम्बन्धी हक र अधिकार महिलालाई छैन । सामाजिक रूपमा संगठित हुने, संघ संस्था खोल्ने र चलाउने अवसरबाट महिला वञ्चित छन् । राजनीतिक कियाकलापमा सकिय सहभागी हुने र निर्णय प्रकियामा निर्णायक भूमिका निर्वाह गर्न तथा शैक्षिक गतिविधिमा पुरुष सरह हिस्सा लिन महिलालाई धेरै सहज छैन । छाउपडी प्रथा जस्ता मासिक धर्म पालना गर्दा गोठमा अलग्गै बस्नु पर्ने व्यवस्थाले महिलामाथिको लैङ्गिक विभेद थप पुष्टि गरेको छ (अन्तर्वाता, विमला बृढा, २०७४1१२१२७) ।

सामाजिक विभेदीकरणका कारण

नेपाली समाज पछि पर्नुका विभिन्न कारण छन् । समाजभित्र रहेको जातपात, उचनीच, छुवाछुत, भेदभाव, बहिष्करण आदिलाई प्रमुख कारण मान्न सकिन्छ *(खनाल, २०७१, पृ. ९७)* । सामाजिक विभेदीकरण, बहिष्करण र वञ्चितीकरण समाज र संस्कृतिले सिर्जना गरेको अवधारणा हो । फलस्वरूप समाज एवम् संस्कृतिअनुसार व्यक्ति एवम् परिवारलाई हेर्ने दृष्टिकोण फरक फरक हुने गर्दछ । मूलत: सामाजिक विभेदीकरणको मुख्य कारण भने कै समाज र संस्कृति नै हो । यद्यपि समाज र संस्कृतिभित्र विभिन्न एकाइहरूले विभेदीकरण, बहिष्करण र बञ्चितीकरणमा ठूलो भूमिका निर्वाह गरि रहेका हुन्छन् । सामान्यत: तलका मूलभूत पक्षहरूलाई सामाजिक विभेदीकरणका प्रमुख कारणका रूपमा उल्लेख गरिएको छ ।

- आर्थिक अवस्थाले सिर्जना गरेको बर्गीय संरचना ।
- धार्मिक विश्वास एवम् सांस्कृतिक परम्परा।
- सामाजिक संरचना एवम् सामुदायिक भावना ।
- सामाजिक बञ्चितीकरण एवम् बहिष्करण ।
- अन्धविश्वासयुक्त सोच, चिन्तन एवम् रुढीबादी परम्परा ।
- एक अर्का बीचमा ठूलो सानो भन्ने मनोबिज्ञान ।
- अज्ञानता एवम् सचेतनाको कमी ।
- आत्मबल एवम् आत्मविश्वासको कमी ।
- शास्त्रीयवचन एवम् शास्त्रले निर्माण गरेको व्यवस्था ।
- परम्परागत प्रथा एवम् प्रथाजनित कानुनले निर्धारण गरेको नियम ।
- समय अनुसार सामाजिक मूल्य मान्यतामा रूपान्तरण हुन नसक्नु ।
- विभेदमा परेका समूहलाई विकासको मूल प्रवाहमा समावेश गर्न नसक्नु ।
- विभेदयुक्त समाजको सिर्जनाका लागि समानता र समानताका निम्ति समताको व्यवस्था गर्न नसकन् ।

विभेदबाट उत्पन्न परिणाम

सामाजिक विभेदीकरण, बञ्चितीकरण र बहिष्करण समाज एवम् संस्कृतिले सिर्जना गर्दछ । यो अति प्राचीनकालदेखि अस्तित्वमा रहँदै आएको विषय हो । समाज र संस्कृति सामाजिक विभेदीकरणका लागि प्रमुख कारक हुन्, तर यसभित्र पनि आर्थिक, राजनीतिक, धार्मिक आदिजस्ता विभिन्न तत्वहरूले विभेदीकरणमा निकै ठूलो भूमिका निर्वाह गर्दै आएका छन् । सामाजिक विभेद पूर्णरूपमा हटाउन नसके पनि घटाउन सकिन्छ । यसका लागि हरेक क्षेत्रबाट सकारात्मक पहल गर्नु पर्दछ । एकातर्फ समाजका कतिपय सन्दर्भहरू समाज विकास ऋममा परिवर्तन हुँदै आएका छन् । अर्कातर्फ कतिपय व्यवहारहरू आजसम्म पनि निरन्तर रूपमा अस्तित्वमा रहँदै आएको देखिन्छ । सामाजिक विभेद खासगरी परम्परादेखि आजसम्म कुनै न कुनै रूपमा समाजमा अस्तित्वमा देखिदै आएको व्यवहार हो ।

हिन्दू धर्म भित्रका सामाजिक संरचना निर्माण वर्ण तथा जाति व्यवस्था मूल आधार हो । ब्राम्हण, क्षत्री, वैश्य र शुद्र जस्ता चारवर्ण र धेरैको सङ्ख्यामा जातजाति हिन्दू धर्मभित्र पाइन्छन् । समग्रमा नेपाली समाजमा जातीय संरचनाकै आधारमा छुवाछुत, उचनिच तथा भेदभाव हुँदै आएको देखिन्छ । अछाम जिल्लामा पनि वर्ण तथा जाति व्यवस्थाकै आधारमा प्रचलनमा रहेका विभेदजन्य क्रियाकलापहरू पाइन्छन् । यहाँ गैर दलित र दलित तथा महिला र पुरुष बीचमा मात्र होइन, ब्राम्हण ब्राम्हण, ब्राम्हण क्षत्री, क्षत्री क्षत्री र दलित दलितका बीचमा पनि धेरै विभेदहरू छन् । समाजमा विद्यमान बहिष्करण, बञ्चितीकरण र विभेदीकरण समाजलाई स्तरीकृत गर्ने प्रमुख आधार हुन् । यी पक्षलाई मानव जाति भित्र एक अर्काबीचमा द्वन्द्व सिर्जना गरी हत्या हिंसा भड्काउने प्रमुख कारण र कारक मानिन्छन् । यस किसिमको भेदभावजन्य सोच, चिन्तन तथा व्यवहारबाट माथि उठ्न र उठाउन सकिएन भने कालान्तरमा द्वन्द्व बढन जाने सम्भावना देखिन्छ । त्यसो हुँदा सबै सरोकारवालाहरूले विभेद न्यूनीकरणतर्फ ध्यान दिन जरुरी छ । समयमा नै सामाजिक विभेद न्यूनीकरण गर्न नसकिएमा त्यसले समाजमा ठूलो द्र्घटना निम्त्याउन सक्छ । त्यसबाट तपशिलका परिणाम उत्पन्न हुन सक्छन् :

- धर्म संस्कृति एवम् परम्परा बीच द्वन्द्व तथा संकट उत्पन्न हुने ।
- जातीय हिंसा बढ्ने र अस्तित्वमा माथि संकट उत्पन्न हुने ।
- सामाजिक एकता भड्किने र जातीय विभेद बृद्धि हुने ।
- छुवाछुत ठूलो सानो भन्ने भावना जागृत हुने र मानव मूल्यमा ह्रास आउने ।
- विकासको मूल प्रवाहमा समाहित गर्न कठिनाई ।
- सामाजिक उत्तरदायित्व र जिम्मेवारीमा कमी ।
- विभेदका कारण परम्परागत पेशा व्यवसाय सञ्चालनबाट पलायन हुने र पेशागत विशिष्टीकरणमा कमी आउने ।

सामाजिक विभेद न्यूनीकरणका उपाय

समाज र संस्कृतिमा रहेको सामाजिक विभेदीकरण, बहिष्करण र बञ्चितीकरणलाई पूर्ण रूपमा हटाउन नसके पनि घटाउन सकिन्छ । वास्तवमा समाज र संस्कृतिको परिर्वतनका कममा यस्ता कतिपय विभेद जन्य व्यवहारहरू कमश: घट्दै आएका छन् । कतिपय सन्दर्भहरू परिवर्तित स्वरूपमा आज पनि समाजमा प्रचलनमा छन् । नेपाली समाज र संस्कृतिको इतिहासलाई विश्लेषण गर्ने हो भने प्राचीनकालदेखि नै समाज एवम् संस्कृतिका विशेषताहरू कमश: परिवर्तन हुँदै आएका उदाहरणहरू पाइन्छन् । केही परिवर्तनहरू स्व: स्फूर्त रूपमा भएका छन् भने कतिपय सन्दर्भहरूमा राज्य सरकार, विभिन्न संघ संस्था, व्यक्ति, परिवार आदिजस्ता संस्थागत एकाईहरूको भूमिका महत्वपूर्ण मानिएको छ ।

नेपालको संविधानको प्रस्तावनामा बहुजाति, बहुभाषिक, बहुधार्मिक, बहुसांस्कृतिक तथा भौगोलिक विविधतायुक्त विशेषतालाई आत्मसात गरी विविधता बीचको एकता, सामाजिक सांस्कृतिक ऐक्यबद्धता, सहिष्णुता र सद्भावलाई संरक्षण एवम् प्रवर्द्धन गर्दै वर्गीय, जातीय, क्षेत्रीय, भाषिक, धार्मिक, लैङ्गिक विभेद र सबै प्रकारका जातीय छुवाछुतको अन्त्य गरी आर्थिक समानता, सम्बृद्धि र सामाजिक न्याय सुनिश्चित गर्न समानुपातिक समावेशी र सहभागितामुलक सिद्धान्तका आधारमा समतामुलक समाजको निर्माण गर्न संकल्प गर्दै भनिएको छ *(नेपाल सरकार, २०७२, पृ. १)* । संविधानमा उल्लेखित उक्त प्रस्तावनाले भेदभाव, छुवाछुत रहित समतामुलक समाजको निर्माण गर्न जोड दिएको छ । यति मात्र होइन यसै संविधानको भाग ३ को धारा १८ को समानताको हक महलको १, २ र ३ मा धर्म, वर्ण, जातजाति, लिङ्ग, आर्थिक अवस्था, भाषा, क्षेत्र, वैचारिक आस्था वा यस्तै अन्य कुनै आधारमा भेदभाव गरिने छैन भनिएको छ *(नेपाल सरकार, २०७२, पृ. ५)* । यसका साथै भाग ३ को धारा २४ को छुवाछुत तथा भेदभाव विरुद्धको हक महलका १,२,३, ४ र ४ उपधारामा छुवाछुत भेदभाव नगर्ने मात्र होइन गरेमा त्यसलाई अपराध मानी कानुन बमोजिम दण्ड गर्न सक्ते र पीडित पक्षलाई कानुन बमोजिम क्षतिपुर्ति पाउने हकको व्यवस्था गरेको छ *(नेपाल सरकार, २०७२, पृ. ११)* ।

संविधानका यी मर्मलाई ध्यान दिँदै नेपाल सरकारले समाजमा पिछडिएका, बञ्चित गरिएका, बहिष्करण र विभेदमा परेका र पारिएका, लक्षित लिङ्ग, वर्ग, समूह तथा समुदायको उत्थानका लागि राष्ट्रिय महिला आयोग, दलित आयोग, मुस्लिम आयोग, कर्णाली आयोग, आदिवासी जनजाति उत्थान राष्ट्रिय प्रतिष्ठान आदिजस्ता आयोग तथा संघ संस्था स्थापना गरेको छ । यी संघ संस्थाले समाज र संस्कृतिले सिर्जना गरेका विभेदीकरण, बहिष्करण र बञ्चितीकरण न्यूनिकरण गर्ने कार्यमा महत्वपूर्ण भूमिका निर्वाह गर्दै आएका छन् ।

सामाजिक परिचालन कार्यक्रम विभेद न्यूनीकरण गर्ने एउटा महत्वपूर्ण प्रक्रिया हो । यसलाई समतामूलक विकासको कार्यनीति मानिन्छ । यो कार्यक्रम समाजमा विद्यमान विभेद न्यूनीकरण गर्दै समतामूलक समाजको सिर्जना गर्ने महत्वपूर्ण प्रक्रिया हो । स्वाभिमानी पूर्वक समाजमा मिलेर बस्ने, संगठित रूपमा सामाजिक आवश्यकताहरू पूरा गर्ने तथा स्वःस्फूर्त रूपमा मानवीय कर्तव्य निर्वाह गर्ने शिलशिलाबाट नै सामाजिक परिचालनको विजारोपण भएको मानिन्छ *(सिग्देल, २०७१, पृ. ४४)* । सामाजिक परिचालन समाज/समुदायमा बसोबास गर्ने विशेष गरी विभिन्न वर्ग, लिङ्ग र सामाजिक बहिष्करण, वञ्चितीकरण र विभेदीकरणमा परेका तथा पारिएका व्यक्तिलाई लक्षित गरी तिनको सामाजिक, आर्थिक, सांस्कृतिक एवम् राजनीतिक स्तर माथि उठाउन र उपलब्ध अवसरहरूसँग तिनको सहज पहुँच, सहभागिता र निर्णय प्रक्रियामा समुचित प्रतिनिधित्व गराई

सामाजिक समावेशीकरण विभेद न्यूनीकरणको अर्को उपाय हो । यो अवधारणा सन् १९९० को दशकमा सशक्त रूपमा उठ्दै आएको देखिन्छ । यसले समाजको सन्तुलित विकासमा जोड दिन्छ । यो समाज रूपान्तरणको एउटा प्रक्रिया पनि हो । लामो समयदेखि पछि परेका र पारिएका लिङ्ग, वर्ग, समुदायलाई विकासको मूल प्रवाहमा उभ्याउन यो अवधारणाले ठूलो महत्व राख्दछ । यो समाजमा वञ्चितीकरण, बहिष्करण र विभेदीकरणमा परेका कमजोर समूहको पहुँच, पहिचान, प्रतिनिधित्व र सहभागिता स्थापित गर्ने सामाजिक सिद्धान्त हो *(गुरागाई, २०९१, पृ. ४)* । सामाजिक समावेशीकरणले समाजका वञ्चित वर्गलाई मूल प्रवाहमा ल्याउन, वर्षौदेखि जातजाति, जनजाति, लिङ्ग तथा भाषाका आधारमा बञ्चितीकरणमा परेका वर्ग तथा समुदायलाई अन्य सुविधाभोगी वर्ग समान अवसर र पहुँच स्थापित गर्दै समतामुलक समाजको सिर्जना गर्दछ *(नेपाल सरकार,* २०७०, पृ. ६) । समग्रमा समाजमा विद्यमान विभेद न्यूनीकरणका लागि तपसिलका कार्य तथा कार्यक्रमहरू सञ्चालन गर्न सक्तिन्छ :

- सबै किसिमका विभेदको अन्त्यका लागि समतामुलक नीति नियम तथा कार्यक्रम ल्याउने ।
- राज्य सरकार, स्थानीय एवम् केन्द्रीय तहमा सञ्चालित सरकारी एवम् गैद्ध सरकारी संस्थाहरूले सजिलो ढंगले बुभून सक्ने विभिन्न किसिमका सचेतनामूलक कार्यक्रम सञ्चालन गर्ने ।
- सदियौंदेखि बञ्चितिकरण एवम् बहिष्करणमा परेका पक्षलाई विकासको मूल प्रवाहमा समावेश गर्ने ।
- परम्परादेखि चलि आएका नीति-नियम, मूल्य-मान्यता, प्रथाजनित कानुनका साथै विभेद सिर्जना गर्ने संरचनाहरूमा सुधार ल्याउने ।
- सामाजिक विभेदलाई न्यूनीकरण गर्ने कार्यक्रम सञ्चालनको जिम्मेवारी सकेसम्म लक्षित समूहलाई नै दिने ।
- सामाजिक एवम् सांस्कृतिक दृष्टिले विभेदमा परेका पक्षलाई स्वावलम्बन एवम् आत्मनिर्भर बनाउने कार्यक्रम सञ्चालन गर्ने ।
- बहिष्करण एवम् बञ्चितीकरणमा परेका समूहलाई हेर्ने र व्यवहार गर्ने दृष्टिकोणमा सकारात्मक भावना मुखरित हुने कार्यक्रम सञ्चालन गर्ने ।
- प्राकृतिक स्रोत साधनका साथै अन्य सेवाहरूमा विभेदमा परेका पक्षको पहुँच बृद्धि गराउने कार्यक्रम ल्याउने ।
- आर्थिक, सामाजिक तथा मनोबैज्ञानिक रूपले विभेदमा पारिएका समूहलाई सशक्त बनाउनका लागि सशक्तिकरण अभियान सञ्चालन गर्ने ।

निष्कर्ष

विभेद सामाजिक विषय हो । प्राकृतिक रूपमा नभई सामाजिक एवम् सांस्कृतिक रूपमा निर्माण गरेको भिन्नता र सोही अनुसार म ठूलो तँ सानो, म उच्च कुलिन वर्गको तँ सानो र निम्न वर्गको भन्ने जस्ता स्तर सिर्जना गरि त्यसैका आधारमा गरिने व्यवहारलाई सामाजिक विभेद भन्न सकिन्छ । विभेद वञ्चित र वहिष्कार समाजलाई स्तरीकृत गर्ने प्रमुख पक्ष हुन् । जाति, वर्ण, धर्म, संस्कृति, भाषा, लिङ्ग, वर्ग, शिक्षा, राजनीति जस्ता विविध कारण र पक्षले समाजमा विभेद, वञ्चित र वहिष्करणको अवस्था सिर्जना गर्दछन् । विभेद समाज र संस्कृतिले निर्माण गरेको भिन्नता एवम् फरकपना हो ।

नेपालमा विभेदीकरण, वहिष्करण र वञ्चितीकरणका क्षेत्र धेरै छन् । धर्म, संस्कार, संस्कृति, परम्परा, खानपान, पोशाक, पहिरन, सुविधाभोग, उठबस, भाषा तथा बोलीचाली, आर्थिक, राजनीतिक, शैक्षिक आदिजस्ता क्षेत्र विभेद सिर्जनाका प्रमुख आधार हुन् । यसैका आधारमा एकले अर्कालाई हेर्ने, बुभ्त्ने र व्यवहार गर्ने सोच, चिन्तन र दृष्टिकोण फरक-फरक छन् । अन्ततः यसले समाजमा विभेदको अवस्था सिर्जना गरेको छ । अछाम जिल्ला सुदूर पश्चिम प्रदेशअन्तर्गत पर्ने पहाडी जिल्ला हो । यहाँको समाज मूलतः हिन्दू धर्म, दर्शन र सिद्धान्तबाट निर्देशित छ । त्यसो हुँदा यस जिल्लामा पनि विभिन्न प्रकारका विभेद अस्तित्वमा छन् । ती विभेदजन्य क्रियाकलापहरूले समाजमा ठूलो प्रभाव पार्दै आएको देखिन्छ । विभेद सिर्जनाको कारण र कारक तत्व समाज र संस्कृति हो । त्यसो भएको हुँदा यसलाई न्युनीकरण गर्दै अन्ततः शून्य अवस्थामा पुऱ्याउन सकिन्छ ।

सन्दर्भ सामग्री

अछाम सेवा समिति (२०७०) सौराइ अछामको, धनगढी, अछाम सेवा समिति

अवस्थी, गंगादत्त, (२०७१). सामाजिक परिचालनमा सामाजिक परिचालकको भूमिका र चुनौती, *सहभागिता., वर्ष १२-१६, अङ्घ* १-२, (पृ.२४-३३) ।

खनाल, गोपिकृष्ण, (२०७१). रूपान्तरणीय सामाजिक परिचालनको प्रयोग, *सहभागिता., वर्ष १२-१६, अङ्ग १-२*, (पृ.१६-२६) ।

गुरागाई, गोविन्दप्रसाद, (२०७१). स्थानीय एवम् सामुदायिक विकास कार्यक्रम तथा अभियानमा समावेशीकरण तथा सामाजिक परिचालकहरूको भूमिका : एक विश्लेषण, *सहभागिता., वर्ष १२-१६, अङ्घ १-२,* (पृ.१-१४) ।

जिविस (२०६७), जिल्ला पार्श्वचित्र, अछाम : जिल्ला विकास समितिको कार्यालय ।

दुलाल, लोकनाथ, (२०७९). सामाजिक विभेदीकरणका क्षेत्र, कारण एवम् न्यूनीकरणका निम्ति सामाजिक परिचालक, *सहभागिता., वर्ष १२-१६, अङ्ग १-२*, (पृ.४२-४७)।

नेपाल सरकार (२०६७) *नेपालमा गरिबी मापन अभ्यास र गरीबको सङ्ख्या*, काठमाडौ : राष्ट्रिय योजना आयोग ।

नेपाल सरकार (२०६७) *सामाजिक परिचालन निर्देशिका* , काठमाडौ : स्थानीय विकास मन्त्रालय ।

नेपाल सरकार (२०६८) *सामाजिक परिचालनहरूका लागि हाते पुस्तिका* , काठमाडौ : स्थानीय विकास मन्त्रालय ।

नेपाल सरकार (२०७०) *लैङ्गिक समानता तथा सामाजिक समावेशीकरण सम्बन्धी जानकारी पुस्तिका*, काठमाडौ : सङ्घीय मामिला तथा स्थानीय विकास मन्त्रालय, लैङ्गिक समानता तथा सामाजिक समावेशीकरण शाखा।

नेपाल सरकार (२०७२) *नेपालको संविधान,* काठमाडौ : कानुनी किताव व्यवस्था समिति ।

पोखरेल, ऋषिराम (२०६८) *बैद्यनाथ क्षेत्र,* अछाम: विद्वान्हरूको दृष्टिमा, अछाम : श्री वैद्यनाथ क्षेत्र प्रकाशन समिति (सम्पा) ।

शाह, सुरत बहादुर (२०७४) *अछाम दर्पण,* अछाम: श्रीकुल पद्यमावति शाह स्मृति गुठी ।

स्वेदी, राजाराम (२०५८) *अछामको इतिहास*, अछाम: वैद्यनाथ क्षेत्र प्रकाशन समिति ।

स्थानीय विकास प्रशिक्षण प्रतिष्ठान (२०७९). सहभागिता, वर्ष १२-१६, अङ्घ १-२, ललितपुर : स्थानीय विकास प्रशिक्षण प्रतिष्ठान ।

- सिग्देल, सि.पी., (२०७९). रूपान्तरणीय तथा सामाजिक परिचालन र समावेशी विकास, सहभागिता., वर्ष १२-१६, अङ्घ १-२, (पृ.४४-५१) ।
- Acharya, G.P. (2071). Social Mobilization as an Instrument for participation in decision making process., Sahabhagita, (Vol.12-16, No. 1-2 : pp 64-69).
- Bhusan, V. & Sachadev, D.R. (2003) An Introduction to Sociology, Alahbad: Kitab Mahal.

Mishra, C. (2007) Essay on the Sociology of Nepal, Kathmandu: Fine Print Book.

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Aishwarya Multiple Campus Dhangadhi, Kailali

