

Personal Pronouns in Santhali

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Abstract

This very brief writing presents personal pronouns of Santhali language that is one of the much endangered languages of Nepal. Encountering various forms of personal pronouns, the researcher urged to get as many as possible forms and primary data were collected by using questionnaires. Personal interview with Santhals was a must. The data and information gathered were verified from secondary source. In Santhali language, there are five first pronouns- 'i,j' (singular), 'alan', and 'ali,j' (dual), and 'abu' and 'ale' (plural). Two dual forms and two plural pronouns are distinguished inclusive vs. exclusive pronoun. Three forms of second person pronouns are found - singular, dual and plural numbers Santhals use twelve third person pronouns in their conversation. These twelve pronouns are grouped into four on the basis of proximity of the addresser and addressee. The various forms of Santhali personal pronouns are found to be similar to other indigenous languages of the country. Thus, further research is must to promote and preserve this rich language.

Key words: Santhali language, endangered, singular, dual, plural, and personal pronouns.

Introduction

Santhali, the mother tongue of Santhals, is categorized in the list of endangered languages of Nepal. According to population Census 2011, the total number of Santhals in Nepal is 51,735 which is about 0.19 percent of the total population of Nepal. They live in Jhapa, Morang and Sunsari district in Nepal. Santhali belongs to Austro-Asiatic language family. The original place of the Santhal is Saount village in Midnapur district, West Bengal. To quote Bhowmik (1986,163) "The name Santali, according to Skrefsrud, is a corruption of Saontar, and was adopted by them when they lived for several generations in the country about in Midnapur." Previously they were called 'Santals'. In some places of Bihar, Jharkhand, West Bengal they are called the same whereas in some location 'Santhals' is used depending on aspirated pronunciation. In Nepal they were known as 'Satar'. With the emergency of knowledge and identity of the language and culture in Nepal, they prefer to be addressed as 'Santhals'. To follow the originality of Santhals, it is worth quoting Online

The self-designation of the Santals is hoꞗ 'man' or hoꞗ hopon 'sons of mankind.' They also use the term mañjhi/mājhi 'headman' as an ethnonym. They call their language hoꞗ roꞗ. In northern West Bengal, Santali is known as janli or paharia, in southern West Bengal and Orissa as t^haꞗ, and in Jharkhand as parsi.¹

¹ <https://www.britannica.com>topic>Santali-language>.

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The researcher was engaged in research of the Santhals. Personal pronoun, 'we', is considered to be plural number of the first person in English. However, in the translation of 'we' into Santhali, the researcher encountered alternatives names viz., /alaŋ/, /aliŋ/, /abu/ and /ale/ that confused him totally. The same was found in the second and third person. Hansdah and Murmu (2005; 6) confirm "Santali has three numbers for nouns and pronouns, viz., single, dual, and plural. In addition, there are two forms of personal pronouns in the first person in dual and plural number". It, therefore, necessitated the proper and accurate diagnosis of personal pronouns of this language. For this primary data are must.

Analysis and Interpretation

There are five first person pronouns in this language. They are mentioned below:

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Explanation and Finding of the first person pronoun

In Santhali language, there are five first pronouns- 'ijn' (singular), 'alan', and 'alijn' (dual), and 'abu' and 'ape' (plural). Two dual forms and two plural pronouns are further distinguished between inclusive and exclusive pronoun. The table below shows it very precisely:

Table: 1 First person Personal pronoun in Santhali

	Number	Inclusive	Exclusive	
1	Singular	ijn		
2	Dual	alan	alijn	
3	Plural	abu	ale	

3. b. Second person pronoun

Examples of Second Person are given below:

1. $\text{am hatijam tʃʌlaja}$
You (singular) go to market.
2. $\text{n abhatijabin tʃʌlaja}$
You (dual) go to market.
3. $\text{ape hatijape tʃʌlaja}$
You (plural) go to market.

Explanation and Finding of the second person pronoun

These examples show that there are three forms of second person pronouns in Santhali. They are singular, dual and plural numbers. According to Hemrom, in second form anaphoric form is used. The table below shows it clearly:

Table: 2 Second person Personal pronouns in Santhali

	Number		
1	Singular	am	
2	Dual	abin/ aben	
3	Plural	ape	

3.c Third person singular personal pronoun

The following examples show the different:

1. $\text{uni hatijaj tʃʌlaja}$
He goes to market.

2. ឆបក ឆកកកឆបក ឆកក ។
 ឆបក ឆកកកឆបក ឆកក ។
 akin hatijakin tʃʌlaja
 They (dual) go to market.
3. ឆប ឆកកកឆប ឆកក ។
 ឆប ឆកកកឆប ឆកក ។
 uka hatijaku tʃʌlaja
 They (plural) go to market.
4. ឆក ឆកកកក ឆកក ។
 ឆក ឆកកកក ឆកក ។
 uni hatijaj tʃʌlaja
 He (far) goes to market.
5. ឆកក ឆកកកឆបក ឆកក ។
 ឆកក ឆកកកឆបក ឆកក ។
 unkin hatijakin tʃʌlaja
 They (dual) go to market (far).
6. ឆកក ឆកកកឆប ឆកក ។
 ឆកក ឆកកកឆប ឆកក ។
 unku hatijaku tʃʌlaja
 They (plural) go to market (far).
7. ឆក ឆកកកក ឆកក ។
 ឆ.ក ឆកកកក ឆកក ។
 hani hatijaj tʃʌlaja
 He (very far) goes to market.
8. ឆកក ឆកកកឆបក ឆកក ។
 ឆកក ឆកកកឆប ឆកក ។
 hanʃkin hatijakin tʃʌlaja
 They (dual) go to market(very far).
9. ឆកក ឆកកកឆប ឆកក ។
 ឆកក ឆកកកឆប ឆកក ។
 hanʃku hatijaku tʃʌlaja
 They (plural) go to market(very far).
10. ឆក ឆកកកក ឆកក ។
 ឆក ឆកកកក ឆកក ។
 nuj hatijaj tʃʌlaja
 He (very near) goes to market.
11. ឆកក ឆកកកឆបក ឆកក ។
 ឆកក ឆកកកឆបក ឆកក ។
 nukin hatijakin tʃʌlaja
 They (dual) go to market (very near).

Accounting Concepts

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Abstract

There are some assumptions on which accounting is based. Accounting is the language of business. Business firms communicate their affairs and financial positions to outsiders through the medium of accounting, which is the language of business in the form of financial statements. To make the language convey the same meaning to all interested parties, accountants have agreed on several concepts which they to follow. The messages so communicated should easily be understood by the people for whom it is intended. Accounting concepts can be described as something which signifies a general notion regarding accounting principle.

Key Words: Accounting, day to day, concept, rules, principles, financial transactions, cost, recorded and example

Introduction

Accounting Concepts are general guidelines that all accountants should know and follow when recording day-to-day business transactions and preparing financial accounts. The assumptions, so made, are most natural and are not forced ones. A concept is a self-evidence proposition i.e., something taken for granted. There are the necessary assumptions upon which accounting is based. Accounting concepts are postulates, assumptions or conditions upon which accounting records and statements are based. The various accounting concepts are as follows:

Business entity concept

This concept assumes that, for accounting purposes, the business enterprise and its owners are two separate independent entities. Thus, the business and personal transactions of its owner are separate. For example, when the owner invests money in the business, it is recorded as liability of the business to the owner. Similarly, when the owner takes away from the business cash/goods for his/her personal use, it is not treated as a business expense. Thus, the accounting records are made in the books of accounts for the business unit and not the person owning the business. This concept is the very basis of accounting. Let us take an example. Suppose Mr. Sahoo started business investing Rs100000. He purchased goods for Rs40000, furniture for Rs20000 and plant and machinery of Rs30000. Rs10000 remains in hand. These are the assets of the business and not of the owner. According to the business entity concept, Rs100000 will be treated by business as capital i.e. a liability of business towards the owner of the business. Now suppose, he takes away Rs 5000 cash or goods worth Rs 5000 for his

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domestic purposes. This withdrawal of cash/goods by the owner from this concept helps in ascertaining the profit of the business as only the business expenses and revenues are recorded and all the private and personal expenses are ignored. This concept restrains accountants from recording of the owner's private/personal transactions. It also facilitates the recording and reporting of business transactions from the business point of view. It is the very basis of accounting concepts, conventions, and principles.

Money Measurement Concept

This concept assumes that all business transactions must be in terms of money, which is in the currency of a country. In our country, such transactions are in terms of rupees. Thus, as per the money measurement concept, transactions that can be expressed in terms of money are recorded in the books of accounts. For example, the sale of goods worth Rs. 200,000, purchase of raw materials.

Going Concern Concept

This concept states that a business firm will continue to carry on its activities for an indefinite time. Simply stated, it means that every business entity has continuity of life. Thus, it will not be dissolved soon. This is an important assumption of accounting, as it provides a basis for showing the value of assets in the balance sheet; For example, a company purchases a plant and machinery of Rs.100000 and its life span is 10 years. According to this concept every year some amount will be shown as expenses and the balance amount as an asset. Thus, if an amount is spent on an item that will be used in business for many years, it will not be proper to charge the amount from the revenues of the year in which the item is acquired. Only a part of the value is shown as an expense in the year of purchase and the remaining balance is shown as an asset. A business is judged for its capacity to earn profits in the future.

Accounting Period Concept

All the transactions are recorded in the books of accounts on the assumption that profits on these transactions are to be ascertained for a specified period. This is known as the accounting period concept. Thus, this concept requires that a balance sheet and profit and loss account should be prepared at regular intervals. This is necessary for different purposes like calculation of profit, ascertaining financial position, tax computation, etc. Further, this concept assumes that the indefinite life of business is divided into parts. These parts are known as Accounting Period. It may be of one year, six months, three months, one month, etc. But usually, one year is taken as one accounting period which may be a calendar year or a financial year. Year that begins from 1st of Baishakh and ends on 31st of Chaitra, is known as Calendar Year. The year that begins from 1st of Shrawan and ends on 31st of Ashad of the following year, is known as financial year. As per accounting period concept, all the transactions are recorded in the books of accounts for a specified period. Hence, goods purchased and sold during the period, rent, salaries, etc. paid for the period are accounted for and against that period only. It also helps the business firms to distribute their income at regular intervals as dividends.

Accounting Cost Concept

Accounting cost concept states that all assets are recorded in the books of accounts at their purchase price, which includes the cost of acquisition, transportation, and installation and not at its market price. It means that fixed assets like building, plant and machinery, furniture, etc are recorded in the books of accounts at a price paid for them. For example, a machine was purchased by XYZ Limited for Rs.500000, for manufacturing shoes. An amount of Rs.1,000 was spent on transporting the machine to the factory site. Besides, Rs.2000 were spent on its installation. The total amount at which the machine will be recorded in the books of accounts would be the sum of all these items i.e. Rs.503000. This cost is also known as historical cost. Suppose the market price of the same is now Rs 90000 it will not be shown at this value. Further, it may be clarified that cost means original or acquisition cost only for new assets and for the used ones, cost means the original cost less depreciation. The cost concept is also known as the historical cost concept. The effect of cost concept is that if the business entity does not pay anything for acquiring an asset this item would not appear in the books of accounts. Thus, goodwill appears in the accounts only if the entity has purchased this intangible asset for a price significance. This concept requires asset to be shown at the price it has been acquired, which can be verified from the supporting documents. It helps in calculating depreciation on fixed assets. The effect of the cost concept is that if the business entity does not pay anything for an asset, this item will not be shown in the books of accounts.

Dual Aspect Concept

Dual aspect is the foundation or basic principle of accounting. It provides the very basis of recording business transactions in the books of accounts. This concept assumes that every transaction has a dual effect, i.e. it affects two accounts in their respective opposite sides. Therefore, the transaction should be recorded in two places. It means, both the aspects of the transaction must be recorded in the books of accounts. For example, goods purchased for cash has two aspects which are (i) Giving of cash(ii) Receiving of goods. These two aspects are to be recorded. Thus, the duality concept is commonly expressed in terms of the fundamental accounting equation: $\text{Assets} = \text{Liabilities} + \text{Capital}$.

The above accounting equation states that the assets of a business are always equal to the claims of owner/owners and the outsiders. This claim is also termed as capital or owners' equity and that of outsiders, as liabilities or creditors' equity. The knowledge of dual aspects helps in identifying the two aspects of a transaction which helps in applying the rules of recording the transactions in books of accounts. The dual aspect concept implies that every transaction has an equal impact on assets and liabilities in such a way that total assets are always equal to total liabilities.

Realization Concept

This concept states that revenue from any business transaction should be included in the accounting records only when it is realized. The term realization means the creation of the legal right to receive money. Selling goods is realization, receiving order is not. In

other words, it can be said that: Revenue is said to have been realized when cash has been received or the right to receive cash on the sale of goods or services or both has been created. The concept of realization states that revenue is realized at the time when goods or services are delivered. In short, the realization occurs when the goods and services have been sold either for cash or on credit. It also refers to the inflow of assets in the form of receivables.

Accrual Concept

The meaning of accrual is something that becomes due especially an amount of money that is yet to be paid or received at the end of the accounting period. It means that revenues are recognized when they become receivable. Though cash is received or not received and the expenses are recognized when they become payable though cash is paid or not paid. Both transactions will be recorded in the accounting period to which they relate. Therefore, the accrual concept makes a distinction between the accrual receipt of cash and the right to receive cash as regards revenue and actual payment of cash and obligation to pay cash as regards expenses. The accrual concept under accounting assumes that revenue is realized at the time of sale of goods or services irrespective of the fact when the cash is received.

Matching Concept

The matching concept states that the revenue and the expenses incurred to earn the revenues must belong to the same accounting period. So once the revenue is realized, the next step is to allocate it to the relevant accounting period. This can be done with the help of the accrual concept. The matching concept implies that all revenues earned during an accounting year, whether received/not received during that year and all costs incurred, whether paid/not paid during the year should be taken into account while ascertaining profit or loss for that year.

Conclusions

Accounting concept refers to the basic assumptions which serve the basis of recording actual business transactions. The important accounting concepts are a business entity, money measurement, going concern, accounting period, cost concept, duality aspect concept, realization concept, accrual concept, and matching concept. Business entity concept assumes that for accounting purposes, the business enterprise and its owner(s) are two separate entities. Money measurement concept assumes that all business transactions must be recorded in the books of accounts in terms of money. Going concern concept states that a business firm will continue to carry on activities for an indefinite period. The accounting period concept states that all the business transactions are recorded in the books of accounts on the assumption that profits of transactions is to be ascertained for a specified period. Accounting cost concept states that all assets are recorded in the books of accounts at their cost price. The dual aspect concept states that every transaction has a dual effect. Realization concept states that revenue from any business transaction should be included in the accounting records only when it is realized. The accrual concept under accounting assumes that revenue is realized at the time of sale of goods or services irrespective of the fact when the cash is

received. Matching concept states that the revenue and the expenses incurred to earn the revenue must belong to the same accounting period.

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Western Literature: The Ground of the Sanskrit

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Abstract

It has become a crucial time for the exploration of the worth of Eastern literature, especially Sanskrit, for occupying an identical space and its influence in the Western literature. The impact of East in the West was out of common thought for many in western literary texts, and is often presumed that seeking such influence of Sanskrit literature is absolutely reluctance. The belief of western philosophy by the colonials was, and still is, a dominance of knowledge and science of the West over the entire world. The 'Eurocentric' knowledge has veiled the minds of people in the East; making believe with the defunct of Sanskrit language, literature and philosophy. Consequently, it deprived even the Easterners to enter into Sanskrit treasure and seek the kernel of vast knowledge hidden in it. However, the situation was something different. Many writers in the West got touched by Sanskrit literature and they reflected Sanskrit, or rather Hindu philosophy, in their literary creations. It has made us believe that there is a great impact of Sanskrit literature in the Western literature. Unknown to many, Western writers were deeply influenced by their study of sacred Sanskrit literature. This article tries to explore how Eastern philosophy / Sanskrit literature shaped Western writers and their experience of nature, and conclude with observations on bringing such Eastern perspectives to a richer, more mindful, and self-reflective way of knowing nature and the others effectively.

Keywords

English: Hinduism, Orientals, absolution, religion, transcendentalism

Sanskrit: brahma, kala, maya, karma, transcendentalism, dharma

Introduction

The Sanskrit literature has a long history. 'The history of ancient Indian literature naturally falls into two main periods. The first is the Vedic, which beginning perhaps as early as 1500 B.C., extends in its latest phase to about 200 B.C' (MacDonell, 1900); and it has occupied a large territory of human civilization. MacDonell further writes that Rigveda goes back to 1800 BC and it had influenced the Indian society and life style that time.

The Vedic literature in Sanskrit language introduced the Brahmanic culture reflecting the civilized life styles and the divine thought and perfect enlightenment. Both Vedic and classical Sanskrit literature filled both senses hearing 'shruti' and remembering 'smriti'. The Vedas are for 'shruti' and 'Puranas' and 'Upanisadas' are for 'smriti'. Literature is for both purposes, and they are pervading in different parts of world with the translations of international languages. It has an immense treasure of philosophy and literature. Consequently, there is never-ending effects of Sanskrit literature and philosophy in the Western literature and philosophy.

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The abstractions represented by the Sanskrit language is present in the western writers, however the very word may not be existing in Sanskrit academic cultures. The terms like *karma*, *artha*, *avatara*, *dharma*, *kama*, *kala*, *moksa*, *nirvana*, *shanty*, *yagga*, *purana*, *yuga*, *shastra*, *maya* are common terminologies used in Sanskrit literature and philosophy. But they have corresponding analogies in English as *action / work*, *material*, *way to*, *passion*, *cosmic time*, *release*, *liberty / way out*, *peace*, *worship*, *legend / fable*, *age*, *work*, *lust / temptation*. Similarly, Sanskrit does not have the word 'miracle' as it is impossible to occur without 'karma'; a very inspiring word to teach to adapt for the achievement in life. The concept of God in Sanskrit literature is not an omnipotent single God, rather the 'god' created by the human for worship; because there are *infinite gods* in this cosmology.

The occurrence of triple power Bramha (creator), Vishnu (preserver) and Shiva (destroyer) in Sanskrit literature has influenced the western writers. The concept of Bhramha has become a worthy concept in Ralf Waldo Emerson and his poem 'Brahma' which amazes the mystery of creation, in which the creator is beyond our perception and understanding (Anwaruddin, 2013). Emerson's poem reads:

If the red slayer think he slays,
Or if the slain think he is slain,
They know not well the subtle ways
I keep, and pass, and turn again.
Far or forgot to me is near;
Shadow and sunlight are the same;
The vanished gods to me appear;
And one to me are shame and fame.
They reckon ill who leave me out;
When me they fly, I am the wings;
I am the doubter and the doubt,
And I the hymn the Brahmin sings.
The strong gods pine for my abode,
And pine in vain the sacred Seven;
But thou, meek lover of the good!
Find me, and turn thy back on heaven.

Similarly, Sanskrit literature 'heaven' is not the place to reward the 'good guy'; the reward is in never entering in the life cycle. The pray in Sanskrit philosophy refers to 'sacrifice' or renounce, or 'not to demand anything', rather one has 'everything'. Sanskrit literature never states that one is poor. It is relative, not absolute.

‘Dharma’ refers to ‘self motivated’ for good deed without any expectation. ‘saba - dharma’ refers to self preservation, ‘kula – dharma’ refers to family preservation, ‘yuga- dharma’ refers to the preservation of time and its spirit, and ‘sanatana - dharma’ refers to the preservation of the eternal truth (Pal, 2014). As Mahabharata states Arjun’s difficulty in making the choice of these four ‘dharma’, this can determine the quality of life.

The ‘cosmic time’ or ‘kaal’ in Sanskrit literature, presents as a mysterious thing; a continuous motion in which it is our creation but has power to destroy and Lord Shiva, who is known as ‘Maha Kaal’. It is difficult ideology about time which is powerful and ambiguous. As T.S. Eliot speaks in the first of ‘The Four Quartets’ about the ‘Kaal’:

Time present and time past
Are both perhaps present in time future,
And time future contained in time past.
If all time is eternally present
All time is unredeemable.
What might have been is an abstraction
Remaining a perpetual possibility
Only in a world of speculation (Pal 2014).

The rise of transcendentalism opened more doors to peep the eastern philosophy; especially Hindu philosophy through Sanskrit literature and many writers started to use the ideas of the East in the Western writings. ‘Atman’ refers to the supreme self, or the impersonal God, cognitive power or essential self. It is universal heart to give one’s presence.

‘The *atman* is below, above, to the west, east, south, and north; the atman is, indeed, the whole world’ (qtd. in Hamilton 30).

The concept of ‘Maya’ refers to the product of the power of creativity and the power of the self. But this power is magical, mysterious and it really deceives us. So, Maya is illusion. Lord Krishna declares in the ‘Bhagawata Gita’ that he is existed from his own Maya. Emerson’s essays ‘Experience’ and ‘illusions’ present the concept of Maya. Emerson presents himself in his poem ‘Maya’ in this way:

Illusion works impenetrable,
Weaving webs innumerable,
Her gay pictures never fail,
Crowds each on other, veil on veil,
Charmer who will be believed
By man who thirsts to be deceived.
Illusions like the tints of pearl,
Or changing colors of the sky,
Or ribbons of a dancing girl
That mend her beauty to the eye.

‘Dharma’ refers to duty ignoring all selfishness and personal feelings. Lord Krishna in Bhagawata Gita declares that he is born in order to save ‘dharma’ in this world rejecting ‘adharma’. Dharma is justice, responsibility and right conduct. So, Emerson writes in his ‘Letters’ about ‘over-soul’ which is similar to ‘Brahman’ (Rusk, 1939)

The Sanskrit literature (Hindu philosophy) has attracted most of the prominent poets and philosophers of the West, not just because of ‘tell to tell’ but because of ‘something to be told’ in order to know the self and others well.

Objectives

The objective of this article is to assure that the Sanskrit literature has innumerable influences in the western literary phenomena. Although we enjoy being isolated from the Sanskrit literature, the prominent English writers have adopted this philosophy in their major literary creation.

Statement of the Problem

The great achievement of the West in literature has significant impact of Sanskrit literature which is really amazing. All disciplines of human researches and learning would start from the definitions or the European or American writers, thinkers and philosophers. But no area of studies till now has admitted that the Sanskrit literature reflected through Hindu philosophy has strong ground to enrich the ideas of the Western mind. Rather the idea of ‘colonialism’ emerged in order to uplift ‘Eurocentric truth’. The late twentieth and early twenty- first century American critic Lois Tyson writes in her book ‘Critical Theory Today’ (2006):

Today, this attitude—the use of European culture as the standard to which all other cultures are negatively contrasted—is called Eurocentrism. A common example of Eurocentrism in literary studies is the long-standing philosophy of so-called universalism. British, European, and, later, American cultural standard-bearers judged all literature in terms of its “universality”: to be considered a great work, a literary text had to have ‘universal’ characters and themes. However, whether or not a text’s characters and themes were considered ‘universal’ depended on whether or not they resembled those from European literature. Thus, the assumption was that European ideas, ideals, and experience were universal, that is, the standard for all humankind.

The result of this ‘West demined knowledge’ paved the initial phase of our learning either starting with the definition of Plato or Aristotle. But no learning starts with what the enlightening texts of Sanskrit literature are. The result is that the Sanskrit texts have been made reluctant. The value of Sanskrit literature is not allowed to be judged; rather it is declared to be in ‘dead’ language. This article tries to project the ground of Sanskrit literature for the creation of literature in the West.

Literature Review

There is enormous flow of evaluating western literature, literary writers and their works. They are adapted all over the world; because they are supposed to be excellent, standard, scientific and authentic. However, the global studies of literature and

philosophy have offered a good space for the Sanskrit literature for the last half millennium (Muller, 1860, p-1). Similarly, the study of Sanskrit literature (MacDonell, 1900) presents the history of Sanskrit literature and its dimensions. Jeffrey Somer, under the title 'The Renaissance Writers Who Shaped the Modern World' (2019), claims that the Western ideas have influenced the entire world. Somer further writes:

Some of the writers who emerged during the Renaissance remain the most influential writers of all time and were responsible for literary techniques, thoughts, and philosophies that are still borrowed and explored today.

The world enchanted the western mind as the source of 'personal helicon' for the creation of art and literature. But this is not entirely authentic. The contribution of the Sanskrit literature to the west has infinite bound, and it is found in prominent English poets and philosophers.

Hypothesis

Many people, even writers, have failed to perceive that Sanskrit literature has the power to influence western literature. They believe Sanskrit literature does not have this light and everything emerged in the west. To believe Sanskrit literature is believed to be 'regressive' in some political schools and it is forced to believe either European or American writers or philosophers. Even British writers like EM Forster and Rudyard Kipling had feelings of 'Western superiority'. Debendra Bahadur Shah in 'JMC Research Journal' under the title 'Implicit Colonialist Identity in E.M. Forster's Passage to India' (2016, Vol-I, No-I) writes:

'A Passage to India' strengthens the colonialist ideology of superiority and its narrative reinforces the stereotypes, the East.

This is a blunder and a great deception. In fact, Hindu civilization and culture reflected in Sanskrit literature has played significant role to influence the Western mind and their poetic creation and thoughts.

Research Methodology

This research paper is mainly based on textual reading, both printed hard copy, and the soft copies in the web addresses. The enormous treasure of Sanskrit literature has infinite genres and works. Similarly, the writers, poets and philosophers in the West have infinite impacts of Sanskrit literature in their thoughts and creation.

This article tries to examine the impacts of Sanskrit literature in major poets, writers and philosophers of the West; mainly Max Muller, T.S. Eliot, William Butler Yeats, Ralf Waldo Emerson, George William Russell, Walt Whitman, Friedrich Nietzsche. Their poems, prose articles and philosophical ideas are extracted in order to support this argument that they are influenced by Sanskrit literature. The extraction is made both from the hard copy books, and the books and research articles in the web addresses. Edward Said in 'Orientalism' (1979) sees the relationship between the East and the West; in which the West have created mirror to see the East. This mirror is the result of the discourse which is paved by the power. The west attained political power along with

the colonization to the East and the Easterners devalued what they had with them. The amazing stereotype has been formulated that the Western ideas are 'scientific' and ideas generated in Sanskrit are 'unscientific' or 'irrational'. As a result, the Easterners adhered what they did not have. But the Westerners made researches on Sanskrit literature and made it as their source of creation. They had much influences from the treasures hidden in Sanskrit medium.

Discussion

The Sanskrit literature, considered as Hindu philosophy, has influenced the writers and the philosophers in the West. *brahma*, *kala*, *maya*, *karma*, *dharma* have played significant role in the western writers' source of creation.

Sanskrit influences are scattered everywhere in the work of the British (American-born) poet/critic/dramatist T. S. Eliot (1888– 1965). He had compassion towards the Indian treasures and destiny of people. So, he has portrayed real political reflection of Indian abstractions and their imperial life under British colony in the poem 'To the Indians who Died in Africa'. This poem states the 'five' elements of the cosmic composition stated in *Bhagawata Gita*, which claims 'nothingness' or futile action (Upriety, 1998). All action is futile and the fruit ought not to be expected. Who can tell if our faring is linear (in the Western sense of time) or circular (in the Eastern sense, *karma*)? Eliot expressed a similar doubt in 1943 in his poem 'To the Indians who Died in Africa' written at the request of Miss Cornelia Sorabjee for 'Queen Mary's Book for India'. Eliot's poem 'To the Indians who Died in Africa' reads —

This was not your land, or ours: but a village in the Midlands,
And one in the Five Rivers, may have the same graveyard.
Let those who go home tell the same story of you:
Of action with a common purpose, action
None the less fruitful if neither you nor we
Know, until the judgment after death,
What is the fruit of action.

While the earth was going to have *Pralaya* (dissolution), the three *shantis* (peace blessings benedictions) that conclude *The Waste Land*, which builds up the long poem of 1920 into an *Upanishad*, for in the Sanskrit (Indian) tradition in which the *Upanishads* are permitted the triple benediction at the end. While acknowledging the *Brihadaranyaka-Upanishad*, Eliot delivers the advice of the King Dakshya Prajapati to the three kinds of intelligent forms who came to him as disciples: gods, anti-gods, and man. In the original Sanskrit literary form, the gods are given the final advice by the King Prajapati to be disciplined, to control themselves, because gods might be victims of arrogance; the anti-gods are suggested to be compassionate, because they might be brutal and vicious; and the men are asked to be giving, because they might become victims of selfishness. Eliot turns the sequence into-

These fragments I have shored against my ruins
Why then Ile fit you. Hieronymo's mad againe

Datta. Dayadhvam. Damyata.

Shantih. Shantih. Shantih. (Abrams, 2012)

Data (give), *dayadhvam* (be compassionate), and *damyata* (be self-controlled). He has switched the order of the *shastra* (rule).

In 1944, 'The Dry Salvages' section of Eliot's poem Album 'Four Quartets' (no. 3- III. of the 4) sets forth the advice by Krishna to Arjuna on the battlefield of Kurukshetra as stated in *Bhagawata Gita*, 'Do not think of the fruit of action.' Eliot may have been arguing here to the Allied soldiers in the Battle of Britain (Eliot was an ARP warden). Was he trying to say that one should fight but forget that one is fighting to save democracy from Nazism and Fascism? The doubt lingers and making a decision is a complicated aspect of life. The poem reads:

I sometimes wonder if that is what Krishna meant—
Among other things—or one way of putting the same thing:
That the future is a faded song, a Royal Rose or a lavender spray
Of wistful regret for those who are not yet here to regret,
Pressed between yellow leaves of a book that has never been opened.
And the way up is the way down, the way forward is the way back.

Similarly, the profound poet of the twentieth century, and dramatist W. B. Yeats (1865–1939), in December 1885 he attended a talk in Dublin on philosophy with Mohini Mohun Chatterjee, who had put Yeats in a dream. Yeats anticipates in his essay 'The Way of Wisdom' to get release from the dream, which bases the Hindu epic Mahabharata. Forty-three years, to be exact, because in 1928 he wrote what is probably the only poem in English literature that has for its title the name of a living Indian person 'Mohini Chatterjee'. Chatterjee's explanation of life and love to Yeats in 1885 was absurdly simple:

Don't ask for anything, because you will get it—and get fed up with it, sooner or later. Especially don't ask for love. Speak from a position of strength, not weakness; fulfillment, not emptiness; giving, not begging. Only by giving love can you receive it. Life is the greatest gift; life is fulfillment, not love. This pronouncement apparently placed Yeats in that incredibly long dream. In the third and fourth quatrains of 'Quatrains and Aphorisms' (Rawal, 2013)

Yeats does seem to endorse Mohini's philosophy:

Long for nothing, neither sad nor gay;
Long for nothing, neither night nor day;
Not even "I long to see thy longing over"
To the ever-longing and mournful spirit say.
The ghosts went by with their lips apart
From death's late languor as these lines I read

On Brahma's gateway, "They within have felt
The soul upon the ashes of the heart."

Yet Yeats wanted love. He craved for Maud Gonne, an ideal character in most of his poems. When she refused him, and married John MacBride, 'a drunken, vainglorious lout', he proposed to her stepdaughter Iseult, who on Maud's advice rejected him also. Yeats did not accept the wise advice of Mohini whom he describes as a 'handsome young man with the typical face of Christ, an Indian who taught 'all action and all words that lead to action were a little trivial(What Mohini meant, of course, was 'ego-loaded' action.)

The Western twist that Yeats gives to Mohini's Hindu belief is obvious. Yeats puts it: 'Grave is heaped on grave' to seek and find the perfect love (Rawal, 2013). To argue that love is not fulfillment is self-deception. Love is *moksha* (liberation, or release from the changing world and the cycle of birth and rebirth, *samsara*). Mohini Chatterjee would have smiled at that.

The second Indian in Yeats's life was Rabindranath Tagore, with whom he kept up an on-and-off epistolary relationship until 1930. He found Tagore's prose poem translations from the Bengali *Gitanjali* good enough for inclusion in his anthology 'The Oxford Book of Modern Verse.'

The third Indian was a Swami whose poems also found place in Yeats's anthology. With Swami Purohit, Yeats entered the esoteric realm of Hindu religious myth and symbolism. Yeats met the Swami in 1930 and collaborated with him in translating the *Upanishads* and other sacred Sanskrit texts. Faber & Faber published these in book form through the good offices of one of its directors, T. S. Eliot, who, incidentally, had earlier in his 'primer of modern heresy' xi consigned Yeats to literary hell, along with James Joyce and D. H. Lawrence, for producing morally dubious and corrupting literature. The primer was aptly titled *After Strange Gods*. Before he met the Swami, Yeats had composed in 1920, two years after the havoc of World War I, a poem titled 'The Second Coming'. He writes:

Turning and turning in the widening gyre
The falcon cannot hear the falconer;
Things fall apart; the centre cannot hold;
Mere anarchy is loosed upon the world,
The blood-dimmed tide is loosed, and everywhere
The ceremony of innocence is drowned;
The best lack all conviction, while the worst
Are full of passionate intensity

Yeats transforms St. John's vision of the coming of the Anti-Christ into a fearful image of an *avatar* of Vishnu, Nara-Simha (the Man-Lion), turning him into a Doomsday

beast who, at the end of the 2000-year gyre of Christian civilization, crawls toward the Christ-child's manger. In other words, the Christian values of love and innocence have been wasted on mankind. Bethlehem has become Bedlam (etymologically, "bedlam" is a corruption of Bethlehem Asylum in London). Poor Nara-Simha, one of the nine manifestations of Vishnu who restore *dharma* each time it declines in the successive *yugas* (ages). A perfectly sensible Hindu *avatar* saving an age of men- lions is metamorphosed (with a touch of the Sphinx) into a world-destroying monster in Yeats's Christian imagination.

Rawlinson, H. (1947) shows how Max Müller would always emphasize that 'Indian fables and folktales' found their way onto the West in the beast stories, where the Indian animals such as lion, cobra, peacock, jackal and elephant would be adapted to other western animals such as wolf or the fox, but the stories would essentially remain the same, made more credible nonetheless, to the local audience through the adaptations that sound familiar.

Likewise, the leading contemporary French poet Jean de La Fontaine (1621-1695)'s 'The Stories of Pilpay', is said to have traveled from India via Baghdad, and translated into almost every European language. Pilpay in the Indian version is Bidya or Vidyapati. The story of 'Cinderella' is supposed to find its inspiration in the Indian folktale of *Suvarnadevi*, who loses her slipper while bathing. The *nursery tales*, according to Rawlinson, is also inspired from numerous Indian folk tales and fables.

According to Franklin Edgerton (1885-1963), an American linguist scholar who has written and translated books of Sanskrit books, seems to have grand knowledge of Sanskrit language and literature. His stories of 'Panchatantra' is the most translated literary product:

...there are recorded over two hundred different versions known to exist in more than fifty languages, and three-quarters of these languages are extra-Indian. As early as the eleventh century this work reached Europe, and before 1600 it existed in Greek, Latin, Spanish, Italian, German, English, Old Slavonic, Czech, and perhaps other Slavonic languages.

Andrew Marvell (1621-78) in his poem 'To His Coy Mistress' refers The Ganga River as the holy place 'to be with rubies' and the 'most sacred place to find true love' (Abrams 2012). Ganga River is referred in almost Hindu legends, tales and Upanisadas.

We would sit down, and think which way

To walk, and pass our long love's day.

Thou by the Indian Ganges' side

Shouldst rubies find; I by the tide.

The speaker in the poem is seeking true love 'getting access to Ganga', and he has complete reliance on it, so have the Hindus. Ganga River is still worshipped for 'purification'.

In the following extract of a poetry written by the Anglo-Irish poet George William Russell (1867-1935), the extent of spread of Indian philosophy is quite distinct:

Shadowy-petalled like the lotus
Loom the mountains with their snows
Through the sapphire,
Soma rising
Such a flood or glory throws,
As when first in yellow splendor
Brahma from the Lotus rose.

Unlike the conjecturing behind the name of the beer brand 'Brahma', there has been no dispute of the fact that the '*Brahma*' (Hindu God of Creation), the *Lotus* (a very preferred flower in Hinduism), and *Soma* (an unidentified but oft-mentioned plant the juice of which was a fundamental offering in Vedic sacrifices) are indeed, Indian in origin.

Arthur Schopenhauer (1788-1860) , a German Philosopher, examined about the 'Upanishads':

That incomparable book....stirs the spirit to the depths...It has been the solace of my life, and will be the solace of my death (Rawlinson, 1947: p. 145).

Let's hold onto our breaths, because the reason Schopenhauer held high the Hindu philosophy, was because it was free from 'engrafted Jewish superstitions'.

The *Bhagvad Geeta's* philosophy of the *niskama karma* (work for its own sake), immortality of the soul, the infinite goodness of God, the nothingness of death and the virtual denial of the existence of evil, would impart just the required level of mysticism, as well as optimism to thirsty European scholars, poets and philosophers, evidences of which could be found in Alfred Tennyson's 'In Memoriam', and Robert Browning's 'La Saisaz'; both of these pieces of work written after the death of their intimate friends.

But the soul is not the body:
And the breath is not the flute;
Both together make the music:
Either marred and all is mute.

Walt Whitman (1819-1892), an American poet, writes in his brief poem 'Roaming in Thought' with the identical analogy of 'Gita', which has been talking about this comforting notion of God, of being inherently existing in all that is good and which is always triumphant over evil and thereby *Karma* happens or justice is served. The poem 'Roaming in Thought' reads:

Roaming in thought over the Universe, I saw the little that is Good steadily hastening towards immortality,
And the vast all that is call'd Evil I saw hastening to merge itself
and become lost and dead.

The profound philosopher Friedrich Nietzsche (1844-1900) was also significantly influenced in his philosophy and works from 'Manu Smriti' (Laws of Manu). This book was hailed 'as a work spiritual and superior beyond comparison', something that cannot even be spoken of in the same breath of Bible or the Holy Ghost.

The 'Shakuntala' was not just a love story of a woman with a child deserted by her royal husband. Since it was translated in English by William Jones in 1789, the story impacted European romanticism and literary works and scholars, particularly, Johann Wolfgang von Goethe, and of the noblest 'overtures' in European music is considered the following piece known as the Shakoontala overture of the Hungarian composer Karl Goldmark (1830-1915). The songs reflect the selfhood and wisdom in his most of the albums.

Conclusion

The Western writers, even if it be a bit, enjoyed using eastern images and symbols in their literary creation. The process of begetting a literary creation begins from the 'search of self being' and this ground is really broad in Sanskrit literature. Anyone who reads Sanskrit literature can see the self through 'brahma' (knowledge of the self), 'kaal' (time), 'Maya' (desire), 'karma' (action), 'dharma' (duty), 'aatma' (self) and they become the 'personal Helicon' (the source of the creation of art). Same thing we have found in the veteran poets and writers of the West- T.S. Eliot, William Butler Yeats, Jean de La Fontaine, Franklin Edgerton, Andrew Marvell, John Milton, George William Russell, Arthur Schopenhauer, Walt Whitman, Friedrich Nietzsche and Karl Goldmark who are inspired from the 'self- reliance', 'good conduct', 'dharma' and 'rahasya' (mysticism) stated in Sanskrit literature. They used Sanskrit words, lines and benedictions in their work of art. They found the contents of Sanskrit literature really impressive and enthusiastic. So, they adopted the philosophy in their creation, which is expressed in Sanskrit language, which is meant to teach for the Hindu cults.

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Correlation between Global Solar Radiation and Air Temperature in Damak, Nepal

Arun Kumar Shrestha*

Abstract

The solar radiation data is not available everywhere in Nepal. The report focused to develop a model of the regression equation to estimate the solar radiation from the air temperature. The climatic data of solar radiation and air temperature of the years 2013, 2014 and 2015 had been taken from the weather station installed in the premise of Damak Multiple Campus. The correlation coefficient of solar radiation to solar radiation, temperature to temperature and solar radiation to air temperature showed that they are highly correlated with each other. On the basis of the fact, a regression equation is developed from the mean value of solar radiation and air temperature of the year 2013, 2014. This model is applied to predict solar radiation of 2015. The graphs show that the predicted value is very close to the observed value. So this regression model can be applied to the nearby location to calculate the solar radiation where the only temperature is recorded.

Keywords: Global solar radiation, Photovoltaic, Average temperature, atmosphere, humidity, correlation, regression

Introduction

The solar energy arriving on the earth's surface is in the form of electromagnetic radiation and mostly lies in the wavelengths of 0.3 to 3.0 micrometers [1]. The total solar radiation after entering the earth's atmosphere is absorbed and scattered by air molecules, clouds, and aerosols [2-4]. The total solar radiation potential will be a milestone for designing and predicting the performance of solar energy equipment and solar energy potential so it requires detailed information on its availability [5-7]. It is known that under the overcast days the solar radiation is very low in comparison with sunny days. The solar radiant energy on the earth's surface is a requirement not only in the studies of climate change, environmental pollution but also in agriculture, hydrology, food industry and promotion of solar photovoltaic technology [8-10]. It is one of the most viable options for renewable energy resources for rural electrification in Nepal. However, there is no detailed study about the global solar radiation and UV radiation in the different part of Nepal. Only a few scattered and short term measured data of solar radiation and ultraviolet radiation taken from the weather station is available but continuous and long term solar radiation data are not available in Nepal [11-13].

Nepal has unique geographical features. It expands from a low plain area from 60 m to the world's highest peak Mt. Everest. There is vast climatic variation in every 100 to

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200 m change of altitude. There are series of the zigzag shapes of small and high mountains so even the satellite cannot measure the exact value of solar radiation in such complex terrain of Himalaya. Therefore, it is very important to validate the ground base measurement data for the confirmation of global solar radiation in different parts of the country. The ground-based data are now very useful helpful to explore the trend of global solar radiation however, it is not available in all parts of Nepal. So, in the absence of these data, scientists used these limited data for modeling to obtain the authentic data at any place where there is no ground base station [14-15]. The air temperature, under the influence of solar radiation, depends not only on the total solar radiation but also on the air velocity at the surface and on the absorption coefficient of the surface.

During a day, the air temperature, as well as surface temperature, normally increases due to solar radiation [16]. The air temperature is always less than surface temperature because the air temperature is measured at a height 1.2m from the earth's surface. Heat exchange with surrounding air increases with increasing air velocity at the surface. The highest surface temperatures can, therefore, be expected at calm, windless weather conditions. There is no detailed study about the global solar radiation and daily day temperature on the local scale. The first time, the data from the weather station established in the Damak Campus has been used to develop the relationship between solar radiation and day temperature. Three years of data from 2013 to 2015 have been collected and average monthly solar radiation and day temperature is calculated. The correlation coefficient and regression equation have been developed from the average value of solar radiation and day temperature of 2013 and 2014. The regression equation has been applied to predict the solar radiation on the given temperature in 2015 and the predicted value and the measured value of the solar radiation have been compared.

Methods and Materials

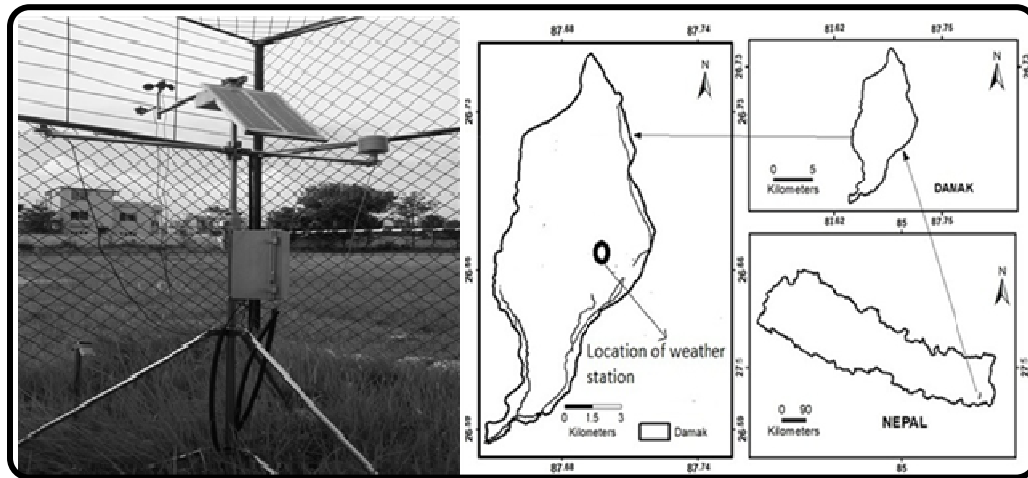


Fig. 1. Weather station and the location of weather station in the political map of Damak

Damak is situated between $26^{\circ}35'21.28''\text{N}$ to $26^{\circ}44'58.71''\text{N}$ latitude and $87^{\circ}39'9.40''\text{E}$ to $87^{\circ}43'10.32''\text{E}$ longitude in the southeastern Terai region of Nepal with 130 m in

elevation. It has a subtropical monsoon climate with summer temperatures ranging from 32°C to 35°C, winter temperatures ranging from 8°C to 15°C, and an average annual rainfall of 270 mm. Fig.1 shows the weather station and location of the weather station in the map of Damak.

It is a Micro Controller based Automatic Weather Station that consists of various sensors attached to detect various climatic parameters. All sensors are attached to this data logger for the collection of real-time data automatically. In my study, only air temperature and solar radiation sensors are used to collect the data. The microcontroller converts the analog signals from these sensors to digital format. This microcontroller remains in the sleep mode and wakes up only when either a signal from the sensors is available or when they receive control signals from the master controller for acquiring the stored data

Results and Discussion

The monthly variation of solar radiation of 2013, 2014 and 2015 are shown in Fig. 2. Overall, solar radiation gradually increased from January to April and steadily decreased from September to December. In between April to September, it remained constant with small fluctuation. When the sun gradually shifted towards the northern hemisphere, the zenith angle of the sun gradually decreases, as a result, the solar radiation

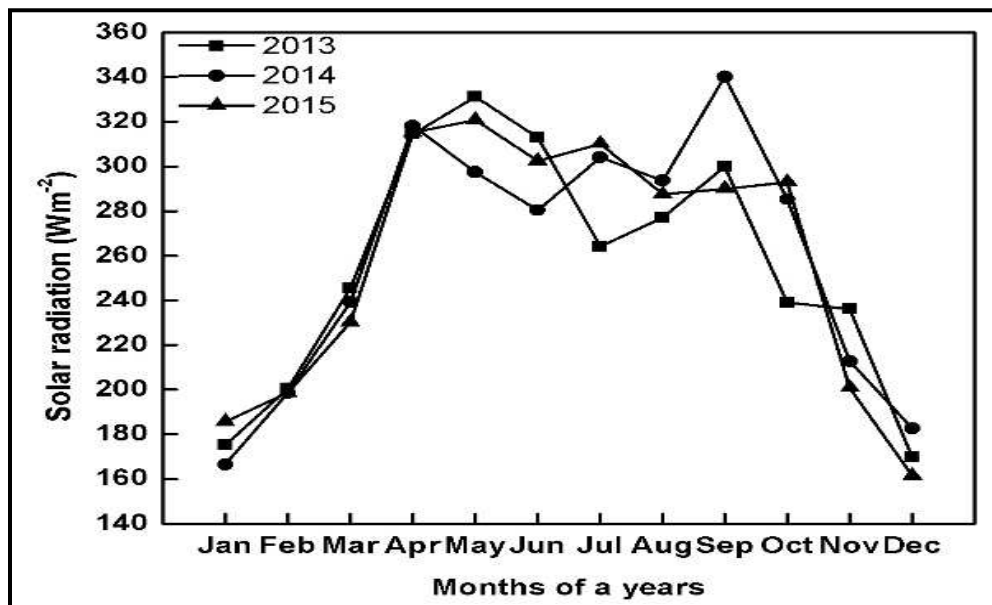


Fig. 2. Monthly variation of solar

received by the earth increases. From April to September, Sun is nearly overhead and the earth surface received the direct solar radiation. During April and May, the earth surface received the maximum solar radiation. Probably it is due to the clear sunshine day. However during the next four-month namely June, July, August, and September,

earth surface received direct sunlight but due to the cloudy and rainy season, most of the solar radiation is blocked on the upper surface of the atmosphere as a result earth surface received nearly same radiation with small fluctuation. The fluctuation of solar radiation during that period represents the rainy season. November and December month represent the winter season at which there is an oblique incident of the sunlight and earth surface received the least value of solar radiation. Another reason, probably, it is due to a foggy day.

The trend of the monthly average air temperature throughout the year of 2013, 2014 and 2015 is shown in Fig.3. The result shows the increasing trend of temperature from the starting month of January up to April and nearly constant throughout the month of April to September. After that, the temperature rapidly decreases till December. From April to September, the air temperature is overall constant with little fluctuation. The change in air temperature during that period is due to cloud formation and rainfall. The summer period has longer day length and earth receives the maximum heat radiation from the sun whereas winter has the shorter day length and earth receive least solar radiation. Thus, longer days typically results in warmer days, while shorter days result in cooler days. It has been reported that daily air temperature is greatly affected by solar radiation so it is one of the major factors that controls the daily air temperature. When the solar radiation is irradiated on the earth's surface, earth absorbed it and solar radiation converted into sensible

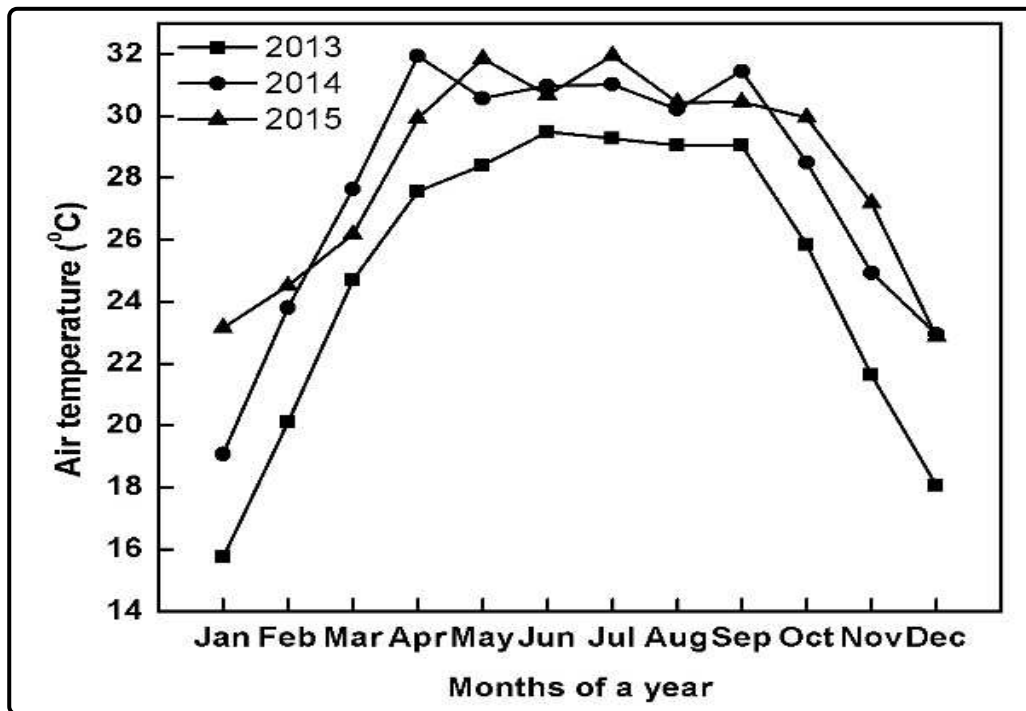


Fig. 3. Monthly variation of air temperature

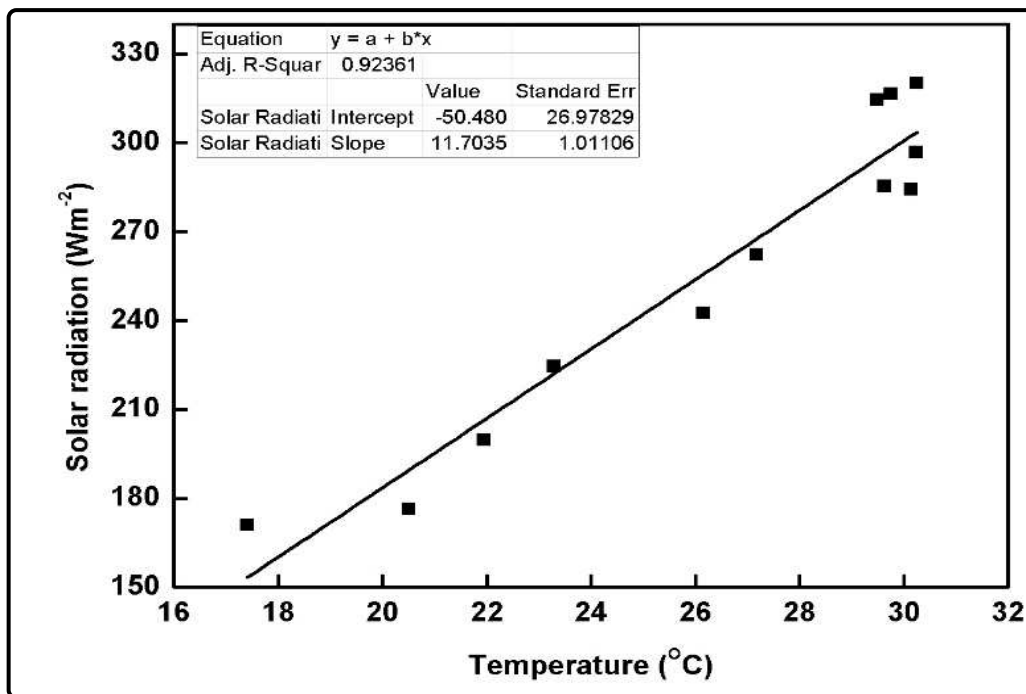


Fig. 4. A linear fit of solar radiation and air temperature of 2013 and 2014

thermal energy rising the air temperature. Both air temperature and solar radiation are gradually increased from January to April and air temperature remains constant till September and then gradually decreased till the end of the month. Meanwhile, there is somewhat fluctuation in solar radiation till November and it is again gradually decreased till the end of the month. The result shows that the mean value of temperature and solar radiation of 2013 and 2014 is highly correlated and its correlation coefficient is 0.96465 and significant level 4.096×10^{-7} . It indicates that solar radiation is the major contributor to change the daily air temperature. The linear fit of the solar radiation and air temperature is shown in Fig.4 in which adj. R^2 is 0.9236 and it indicates that around 92% data gives the exact fit of a linear relationship. On the basis of the linear fit of temperature and solar radiation data, a regression equation is designed with the help of slope and intercept and it is given by Eq.(1).

$$y = 11.70x - 50.48 \quad (1)$$

where y represents the solar radiation and x represent the air temperature

This equation is applied to predict the solar radiation of 2015 when the temperature is provided. The predicted value of solar radiation using Eq. (1) and observed value are shown in Fig. (5). Predicted and observed value didn't agree perfectly, it gave the nature of the observed value of solar radiation of 2015 and can be applied to predict the solar radiation where the only temperature is provided. It also indicates that there are other factors that must be considered for the prediction of solar radiation.

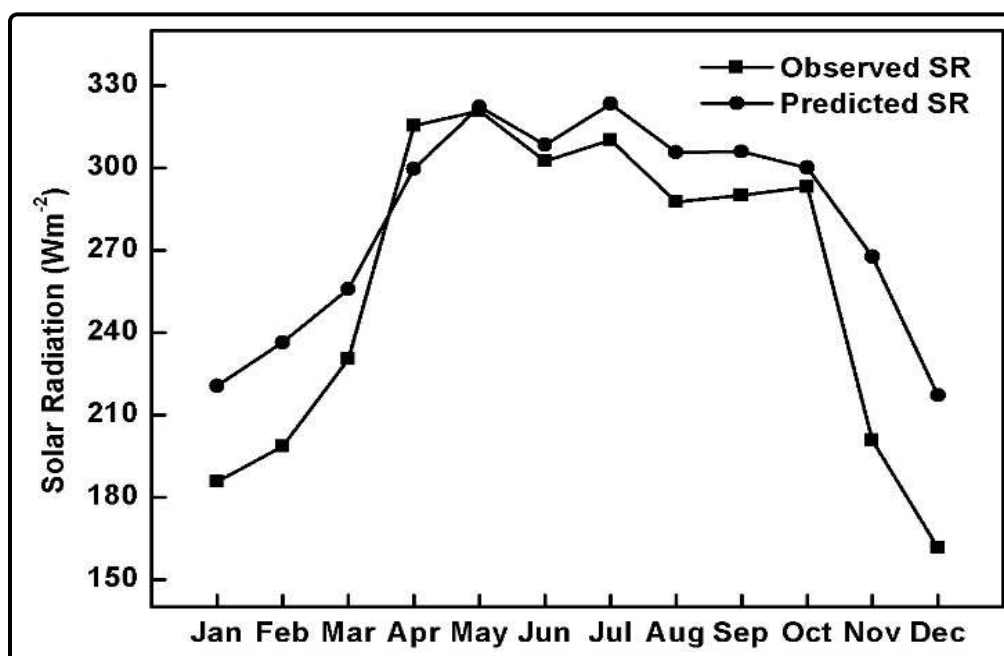


Fig. 5. The observed and predicted value of solar radiation of 2015

Conclusion

The data of 2013, 2014 and 2015 showed that variations of solar radiation and air temperature are in the same fashion every year. From January to April, both solar radiation and air temperature gradually increase from the minimum value and remain constant for a few months and again they gradually decrease from September to December. The evaluation of the correlation coefficient of solar radiation and air temperature shows that they are highly correlated. A regression equation shows that predicted and observed value of solar radiation of 2015 vary in the same fashion.

Acknowledgement

I would like to thank to Caritas Nepal for providing the financial support to install the Automatic Weather Station in the premise of Damak Multiple Campus and Mr. Basudev Kafle and Mohan Sangroula for initiating and delivering fruitful dialogue with Caritas Nepal to install it on the campus.

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Physico-chemical study of Tube Well Water from different wards of Damak Municipality

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Abstract

Drinking water quality affects the human health directly. A study was conducted to evaluate the quality of drinking water of different wards of Damak Municipality. Water samples were collected from 10 different wards. The samples were analyzed in terms of different physico-chemical parameters like pH, total hardness, total dissolved solids; chemical parameters like total alkalinity, ammonia, chloride, iron, phosphate. On the basis of analysis of results, the data showed the variation of the investigated parameter in water samples as follows: Temperature (°C) 25-27, pH 6.1 to 7.6, Total Dissolved Solids (TDS) 0.256 to 105.4 mg/L, chloride 23.52-117.6 mg/L, hardness 152 to 224 mg/L as CaCO₃, Iron (Fe) 0.03 to 3 mg/L, Dissolve oxygen (DO) 2.4 to 10.5 ppm, Nitrate 3 to 100 mg/l, Phosphate 0.01 to 1 mg/L, ammonia 0.02 to 2 mg/L, salinity 8.3 to 42.8 ppm and Total Alkalinity was found to be Nil. Results were compared with World Health Organization (WHO 2006) and National Drinking Water Quality Standard 2062. Among these ten different water samples many of these sample are in poor category in different respects of test, which indicates that most of the tube well water of damak municipality are not fit for drinking and domestic purposes.

Keywords: Quality of water, WHO and NDWQS standard, Damak Municipality, Hardness

Introduction

A healthy and safe environment encompasses the physical surroundings, the psychosocial and health-promoting environment of the society, which emphasizes disease prevention and health promotion for us. Water quality is used to refer to the suitability of water to sustain living organisms and other uses such as drinking, to industrial and agricultural purposes [Venkatesan, G. Swaminathan, et al, (2013)]. Water is considered as a universal solvent, that make the processes of life possible. Due to availability of minerals in water, it is essential for survival of life on earth. Due to different physical and anthropogenic activities, there is degradation in the water quality, and it has direct impact on the climate and public health. Contamination by various pathogenic microorganisms and toxic chemical compounds in water are the main source of infectious diseases [E. Meneses-Ruiz, et al (2004)]. The quality of drinking water is a powerful environmental determinant of health. According to WHO, 80% diseases in the world are caused by inadequate sanitation, pollution and contaminated drinking water. Assurance of drinking-water safety is a foundation for the prevention and control of waterborne diseases. Majority of today's groundwater contamination problems arise from human activities and can be introduced to the ground water from variety of sources like leaching of poisonous toxins and septic tank waste disposal [B. Ravichandran, et al (2012)]. Heavy metals (Pb, Cd, Hg and Iron) contamination in

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drinking-water seriously threatens human health at different levels of diseases. Iron is one of the poisonous materials which enter into the human body through drinking water causing many diseases [Heleno Luiz Dos Santos Junior, Gilson, et al(2014)]. The natural water analysis for physical and chemical properties including trace element contents are very important for public health studies especially for children. These studies are also a major part of pollution studies in the environment [Hynds P.D.,etal(2013)]. Thus, it is essential to control water quality regularly, focusing primarily on physicochemical aspects. In terms of private wells' water quality, wells' owners are the ones responsible for this control (treatment, regular monitoring), but this is not a feasible solution [Mir Misbahuddin & Atm Fariduddin,(2013)]. first, there is little information available to the owners, and second, they have to support all costs of water testing. So, education of the wells' owners, as well as shared responsibility with regulatory authorities to control water quality should exist, in order to obtain the safest water from these wells [World Health Organization (WHO) (1996)]. The aim of this work was to characterize tube-wells water for consumption of people concerning their physico-chemical characteristics and evaluate their quality and possible impact on public health.

Materials and Methods

Collection, preparation and preservation of water samples.

Since various natural and man-made factors are responsible for water pollution. Therefore, the selection of sampling sites are carried on a priority basis of extensive investigation and field survey of many factors. Chemical parameters were determined by using standard methods immediately after taking them into the laboratory. Usual preservative methods were used to preserve the samples. The water sample was collected in 500 mL bottles for analysis and tested within 2 h after sampling. The samples were analyzed as soon as it was possible. A total of 10 water samples were collected. The sources and locations of samples are given in Table 1.

Table 1 Sample code, source and location of sample.

S.N.	Damak municipality, ward No	Sample code	Source
1.	1	S-1	Tube Well
2.	2	S-2	Tube Well
3.	3	S-3	Tube Well
4.	4	S-4	Tube Well
5.	5	S-5	Tube Well
6.	6	S-6	Tube Well
7.	7	S-7	Tube Well
8.	8	S-8	Tube Well
9.	9	S-9	Tube Well
10.	10	S-10	Tube Well

Analysis was carried out for various water quality parameters such as air temperature, water temperature, pH, total dissolved solids (TDS) dissolved oxygen (DO), Alkalinity, hardness (H), chloride (Cl⁻), nitrate (NO₃⁻) iron (Fe), phosphate (PO₄³⁻), salinity . For this work standard method using pH meter,TDS meter,Kit test method,titrametric analysis,are applied. The reagents used for the analysis were AR grade and trippled distilled water was used for preparation of solutions.

RESULT AND DISCUSSION

Ten tube well water samples were taken and analyzed in lab. The result shows the water quality of ten different wards of damak municipality by random sampling method. These observed values are compared with the WHO 2006, and National Drinking Water Quality Standards 2062. The results of all the analytical data from the sample sites are presented in table 2.

Table 2. Results of Physico-chemical analysis of analyzed tube well water samples.

S N	Parameters	Unit	Sample Code										WHO		NDWQS
			S1	S2	S3	S4	S5	S6	S7	S8	S9	S10			
1.	Temperature	° C	25	27	26	26	25	27	26	26	25	27	25	25	
2.	pH	----	6.3	7.4	7.3	7.6	6.2	6.2	6.1	6.2	6.2	6.2	7-8.5	6.5-8.5	
4.	TDS	ppm	78.6	0.256	0.334	94.1	105.4	108.3	0.336	0.508	75.4	94.5	1000	1000	
5.	DO	Mg/L	2.4	3.8	7.5	8.0	4.1	10.3	9.1	8.2	10.5	6.1	6.5-8	---	
6.	Alkalinity	ppm	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	---	----	
7.	Hardness	<div>Mg/L</div>	152	224	224	192	192	152	212	152	190	220	500	500	
8.	Chloride	Mg/L	62.72	82.32	117.6	23.52	35.28	72.6	92.5	23.56	70.36	110.1	200	250	
9.	Nitrate	Mg/L	25	5	100	75	3	15	75	45	80	75	45	50	
10.	Iron	Mg/L	0.3	0.3	0.3	3	1	3	1.5	1.5	2	1	0.2-0.3	0.3	
11.	Phosphate	Mg/L	0.05	0.05	0.03	0.03	0.01	1	0.05	1	0.03	0.05	----	---	
12.	Ammonia	Mg/L	0.5	1.5	1	0.5	0.02	2	1	1.5	1.5	0.5	1.5	1.5	
13.	Salinity	ppm	8.3	13.8	42.8	14.8	12.5	20.7	9.3	12.4	24.1	18.2	---	----	

2.1. Temperature

The temperature ranges from 25 to 27°C during sampling. Generally, the values for majority of tested parameters of some sample water were found to lie above the maximum level of WHO 2006 and NDWQS 2062

2.2. pH

Among 10 sources of sample water total 7 sample lies below the guideline value 7-8.5 of WHO (2006) and 6.5-8.5 of NDWQS (2062) Remaining 3 water sample were found within the guideline range .

2.3.Total Dissolve solid

The maximum TDS of tube well water is found to have the value of 105.4 mg/L. while the minimum TDS value was found to be 0.256 mg/L. The maximum permitted standard of drinking water according to WHO is below 1000 mg/l and NDWS is below 1000 mg/L. This result shows that the drinking water of these selected samples is also below the range. But sample S2, S3, S7, S8 have extremely low value and are not suitable for drinking in terms of TDS.

2.5. Dissolve Oxygen

According to WHO (2006) the permitted range of standard of drinking water is 6.5 to 8 mg/L. As per above presented data the maximum concentration limit exceeds up to 10.5 and minimum concentration limit exceeds up to 2.4 mg/L. Here two sample water lies within given standard range. But remaining 8 samples do not lie within the standard range. This result shows that most the drinking water of these selected area is not suitable for drinking in terms of DO.

2.6. Total Alkalinity

The alkalinity of water is the measure of its capacity to neutralize strong acids, characterized by the presence of all hydroxyl ions capable of combining with the hydrogen ion. Hence from 10 different water sample the amount of concentration present in the sample was found to be nil. This shows that there is no effect on the concentration of alkalinity in the sample of tube well water.

2.7. Hardness

This maximum concentration is S2, S3 and minimum concentration is S1, S6, S8. Chemically, the values for majority of tested parameters of sample water were found to lie below the maximum standard level. The permitted standard of drinking water according to WHO (2006) and NDWQS (2062) is 500 mg/L. Hence this study shows that the water quality of the study area is below the standard value and suitable for drinking in terms of hardness.

2.8. Chloride

The above presented data shows that the concentration of chloride varies from 23.52 mg/L to the minimum and 117.6 mg/L to the maximum. Those water sample having minimum and maximum concentration are S4 and S3 respectively. The permitted standard of drinking water according to WHO (2006) is 200 mg/L and NDWQS (2062) is 250 mg/L. Chemically, chloride have disinfectional properties and the values for majority of tested sample were found to lie below the maximum standard level. Hence

this study shows that the water quality of these sample is poor for drinking in terms of chloride.

2.9. Nitrate

.In above data the concentration of nitrate ranges from 3 mg/L to 100 mg/L. The tube well water sample having concentration limit of 3mg/L is S5 and concentration limit having 100 mg/L is S3. This above data shows that the water sample of S8,S1, lie near the WHO standard .All other data are found above and extreme below the permitted range of WHO and NDWS. It shows that among 10 different tube well water sample only two water sample are suitable for drinking and other 8 tested sample are not suitable for drinking in terms of nitrate.

2.10. Iron

Among 10 water samples taken from different ward areas the concentration of iron has been found to varying from 0.3 mg/L to 3 mg/L during sampling. The maximum permitted standard of drinking water according to WHO (2006) is 0.2-0.3 mg/L and NDWQS is 0.3 mg/L. Out of 10 samples 3 sample are within the guideline value of 0.- 0.3 mg/L.The other tested parameters lie above the range WHO 2006 and NDWQS 2062. So, these sample are not suitable for drinking in terms of iron.

2.11. Phosphate

From 10 different tube well water sample, the concentration of phosphate ranges from 0.01 mg/L to 1mg/Lto the maximum value.The minimum concentration of sample is S5 and maximum concentration of sample is S6 and S8. According to WHO (2006) and NDWQS (2062,) there is no any permitted standard level of drinking water in terms of phosphate.since phosphate is harmful in human health, so due to high phosphate value, sample S6 and sampleS8 are not suitable for drinking in terms of phosphate.

2.12. Ammonia

From above presented data the concentration of ammonia ranges from 0.02 mg/L to 2 mg/L. Those water samples having minimum concentration is S5 and maximum concentration is S6. Among 10 different water sample ,S6 have high ammonia value and this warter sample is harmful and not suitable for drinking .Remaining water sample lies below the who standard value range, these are suitable for drinking.

2.13. Salinity

The minimum concentration of tube well water in terms of salinity is found to have the value of 8.3ppm.While the maximum concentration value was found to be 42.8ppm. The minimum concentration of sample is S5 and maximum concentration of sample is S1 and S3.standard values have not given interms of salinity.Thus all 10 water sample have average value in termsof salinity.

These results reveal inadequate sanitary protection and inadequate water treatment. Overall, we concluded that among 10 different samples, most of the samples were not appropriate to human consumption, in physico-chemical terms. Its consumption could

bring serious consequences to human health. Therefore, it is crucial to have experienced professionals guarantying treatment processes and continuous monitoring of water on physico-chemical parameters. From above presented data the result of ten different sample are further more expressed in graphical form.

Graphical study of pH, TDS, ammonia, Dissolve Oxygen (ppm), Hardness, Nitrate, iron and phosphate Values in different spots

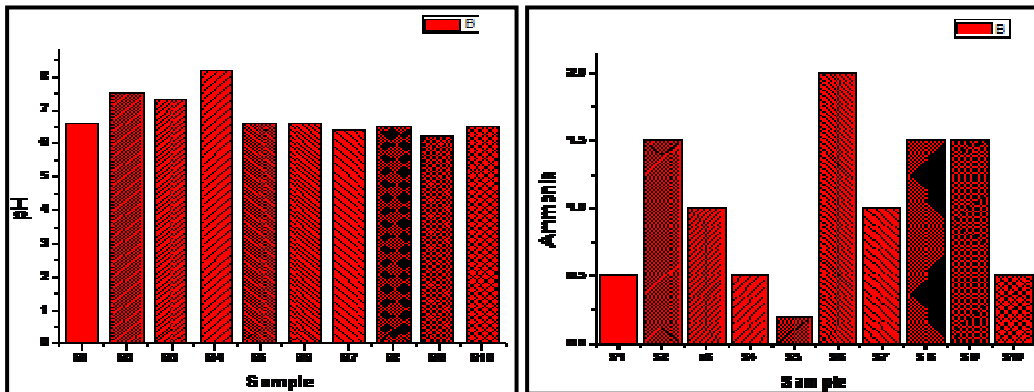


Fig1:-comparative study of PH and ammonia

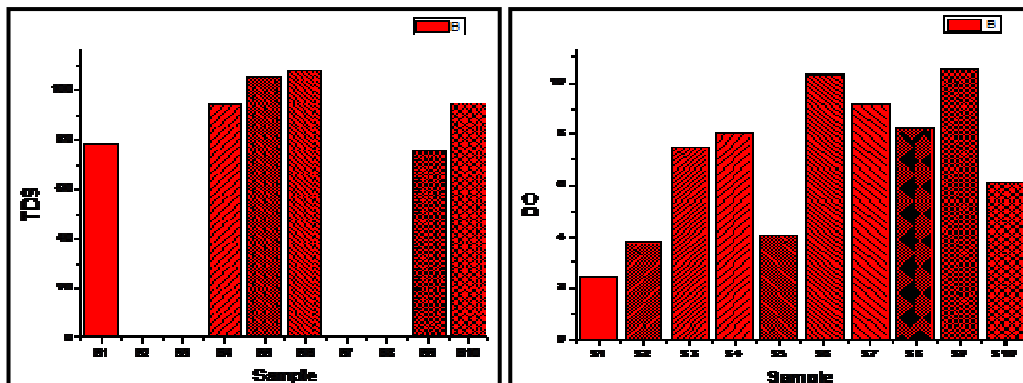
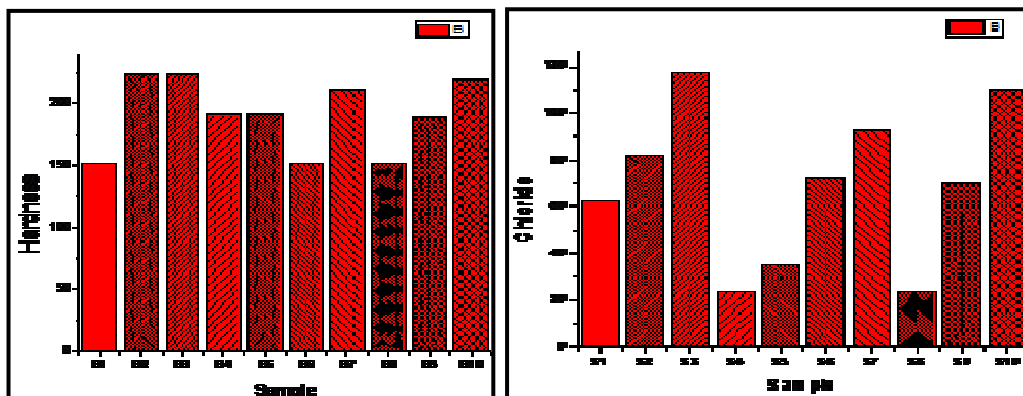


Figure-2 Comparative study of TDS and DO



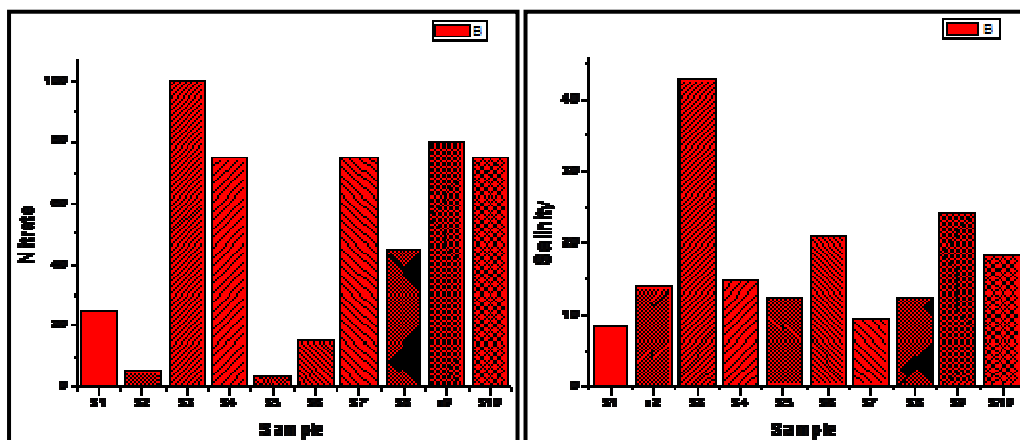


Fig 3:- comparative study of hardness, chloride, nitrate, salinity

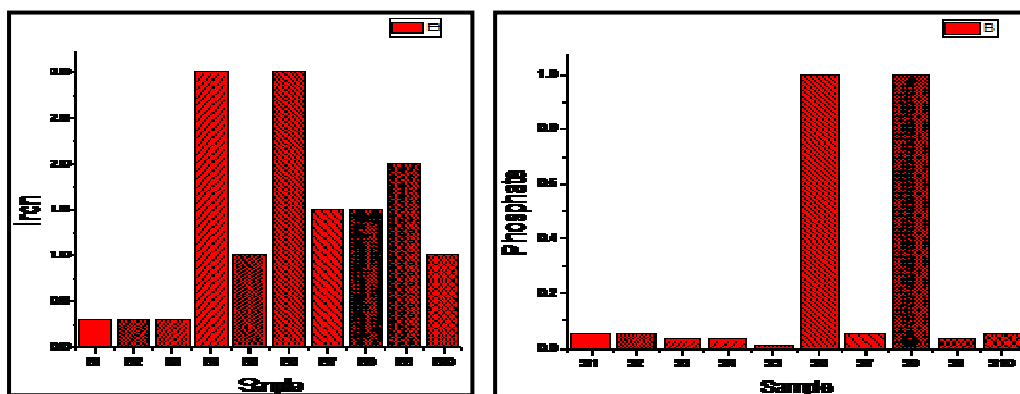


Fig4:-comparative study of iron and phosphate

CONCLUSION AND RECOMMENDATION

Tube-wells water sample collected from 10 different wards of Damak Municipality were analyzed in terms of physico-chemical parameters. The findings of this study shows total dissolve solid, hardness, chloride, nitrate, and iron contamination to be the major problem with drinking water which is related to health condition of human. The study has revealed that tube-well water of different sample is vulnerable to physico-chemical analysis.

Based on the available data, findings of study and existing condition of source and supply system, following recommendation are made:

- ✓ Physico-chemical analysis of drinking water should be performed in different area of municipality on regular basis.
- ✓ Study and analysis should also be carried by measuring heavy metal ions in drinking water.

- ✓ Regular and necessary water purification technique should be implemented to ensure human health safety.
- ✓ Public awareness programs should be effectively conducted for improving water quality condition and effect of poor water quality at local level.
- ✓ Ministry of Health and population should develop strategy for implementation of WHO-2006 and NDWQS-2062 through periodic surveillance of water quality in all municipalities as well as gaupalika .
- ✓ Different Water filtration technique and purification technique like reverse osmosis, ozonolysis technique should be applied for purification of water.

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An EAL parent's shifting perspectives on primary level literacy Education in Australia

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Abstract

This article examined the perspectives of an English as an additional language (EAL) parent on primary level literacy education in Australia. The data were generated from the participant's writing journal. A narrative inquiry was used as a data analysis tool. The findings suggest that being in different social contexts of literacy teaching in the home country and host country, the EAL parent was in dilemma in the beginning. However, by assimilation with the host literacy education context she gradually broadened her understanding of how literacy was taught and learned in the context of Australia. The implication of the findings is that the EAL parents should get the detailed information about the literacy education as early as possible of their arrival in the home country so that they will not suffer in a new context of their children's literacy education.

Key words: EAL parent, primary literacy education, multiliteracy, print literacy, writing journal

Introduction

Literacy is viewed as a traditional practice and a social practice. The traditional view of literacy defines it as a cognitive ability located in individuals (Barton & Hamilton, 2000). Literacy as a cognitive ability suggests that literacy is related to "technical skills," such as cracking the alphabet code (Luke & Freebody, 1997), learning word-formation skills, phonics, grammar, and comprehension skills (Snyder, 2008). This view of literacy aligns with the primary definition of literacy as being able to read and write (Olson & Torrance, 2009). In contrast, according to the view of literacy as a social practice, literacy is not limited to human minds, but it is understood in social contexts, where it is being used. Pahl and Rowsell (2005) use the term "domains" to refer to social contexts. For example, home, school, and workplace are different domains, where different types of literacy practices exist.

On the basis of these two views of literacy practice this article explores a newly-arrived English as an Additional Language (EAL) parent's perspectives on English literacy education in a primary school in Australia. The parent was highly educated and involved in English Language Teaching (ELT) in her home country. She expected her child to succeed academically. The child was proficient in his first language with a range of prior exposure to English language. In fact, the data used for this article are part of the author's doctoral thesis entitled "Perspectives on Primary School Literacy in Australia: ESL Parents and Years 3-6 Teachers." In this research six EAL parents from four different countries (India, Indonesia, Nepal and the Philippines) and five main stream school teachers had volunteered as research participants.

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The parent in question was asked to write a journal to express her thoughts and feelings about her child learning literacy in school. The narrative inquiry is used to analyse data generated from the participant's journal.

Literacy as a cognitive ability versus social practice

As mentioned above there are two views of literacy education – literacy as a cognitive ability and literacy as a social practice. Followers of the view of literacy as a cognitive ability believe that there is a “single literacy” which is by implication practised everywhere in the same way. A traditional view of literacy, with its focus on print literacy alone and one-size-fits-all model has been criticised for not being able to address the diversity of literacy practices occurring around the world (Street, 1993).

Against the view of literacy as a cognitive ability has emerged a more inclusive view, which emphasises literacy as a social practice (Luke et al., 2011; Snyder, 2008; Street, 1993; Walker-Dalhouse & Dalhouse, 2009). According to this view, literacy is not treated as an isolated cognitive ability and a property of individual minds (Barton & Hamilton, 2000). Instead, it emphasises the understanding of literacy practices in their social and cultural contexts (Street, 2009). It is understood that literacy practices are context-dependent (Freebody, 2007; Street, 1993). The concept of multiliteracy (Barton & Hamilton, 2000; The New London Group, 1996, 2000) is also studied under the field of literacy as a social practice.

Narrative inquiry

Story telling is a sole property of human beings. They make sense of the world and the things that happen to them by constructing narratives to explain and interpret events both to themselves and to other people (Sikes & Gale, 2006). Narrative inquiry, a relatively new qualitative methodology, is the study of experience understood through narratives. It is a way of thinking about, and studying experience (Clandinin & Huber, 2010). In other words, narrative inquiry is the process of gathering information for the purpose of research through storytelling. In this way, individual experiences are valuable to understand someone's past experiences which will help explain their present as well as future experiences. The main purpose of narrative inquiry research is to increase understanding of central issues related to teaching and learning through the telling and retelling of participants' stories. Creating a narrative implies a process whereby an accurate story that occurs in collaboration between the researcher and the research participant becomes fixed in a written text (Moen, 2006).

EAL parent perspectives on English literacy education

There is little research which explores ESL parent perspectives on literacy education in schools in English-speaking countries such as Australia, the USA, the UK, and Canada (Guo, 2007; Huh, 2006). However, the available studies raise a number of issues of concern for parents from non-English-speaking backgrounds regarding school literacy practices in English-speaking countries. These include: maintaining the balance between children's first and second language (G. Li, 2007; Huh, 2006; Worthy 2006),

English-only education for bilingual children (S. Brown & Souto-Manning, 2008; Song, 2010), importance of EAL parents' English proficiency (Bernhard & Freire, 1999; Huh, 2006; Worthy, 2006), importance of parent-school communication (Barnard, 2004; Ford & Amaral, 2006; Rogers et al., 2009), lack of teacher support to individual students (Huh, 2006; Bernhard & Freire, 1999), and preference of the use of traditional approaches in teaching reading and writing (Bernhard & Freire, 1999; G. Li, 2006; 2007).

None of the above studies, however, had focus on the EAL parents' changing perspectives over a period of time. Therefore, this article will discuss how EAL parents' views gradually change once they start familiarising themselves with another country's literacy education culture.

A qualitative narrative inquiry

As mentioned above, this article has stemmed from the author's doctoral thesis. To explore the perspectives of newly-arrived EAL parents on school literacy practices, a qualitative case study (Yin, 2009) was conducted at a primary suburban government school in Melbourne, Victoria, Australia in it. The school's pseudonym was Paterson Primary School. There were six parent participants from four different countries – India, Indonesia, Nepal, and the Philippines. In addition to a focus group interview, semi structured individual interviews and questionnaire they were asked to write a journal as data generation tools. Except for a Nepali parent no other parents supplied a complete writing journal. The Nepali parent's journal had every detail of her observation of her child's literacy learning process. Therefore, her journal. has been used as a data source for this article. A narrative inquiry is used to analyse these data.

This parent was given a pseudonym Bina. She was pursuing her PhD in an Australian university. She had worked as an English teacher educator for about two decades in her home country, Nepal. Her only child, Atul (pseudonym) was in class 4 when they first came to Australia in 2008. While Atul was studying in Nepal he had English as a medium of instruction. Because of this, he obviously had got a lot of opportunities to read extended English texts. The use of textbooks, daily homework and a variety of tests and examinations were common practices in Atul's school in Nepal. When he was enrolled at Paterson Primary School, he had had uninterrupted and quite intensive schooling in his home country, equivalent to that of other children in his new Australian school.

Bina was asked to write her thoughts, feelings and impressions related to Atul's literacy learning in Paterson Primary School. Her journal entries recorded in 2008 and 2009 are considered in this article. In 2008 Bina had altogether nine entries and in 2009 this number reached 29.

Dilemma regarding literacy education

Bina started observing Atul's learning as soon as he was enrolled at Paterson Primary School in July, 2008. At that time she raised a lot questions which were unanswerable to her. She compared Atul's learning in Australia and Nepal and found a lot of gaps.

The following journal entry which was written in August, 2008 reflects Bina's confusion and worries regarding her child's learning

I still remember when Atul, my 4th grader son, was in Nepal, used to carry a big bag full of different books and exercise books to go to school and he was busy doing his homework after school. Not only this, most of the time I (or his dad) needed to be available to prepare him for the next day's class test of English, maths, science, social studies or Nepali (one subject a day). In short, he was occupied with his study most of the time which was enough to assure us that our child was doing very well in school.

On the contrary, now, while he is studying in an Australian school, I can't see any books or note books in his bag. Sometimes he brings a sheet of paper or topic book and completes his nominal homework within no time! Every day I ask him two questions, "What did you study today?" and "Don't you have any homework?" Response for the first question: "Global warming/ sustainability (for the whole month!)" and for the second: "NO (most often)!" I wish he could spend more time in his reading and writing at home, but it is about a month of his schooling, and I have not seen him struggling with his study which was quite common in Nepal.

When I compare these two different schooling cultures, it compels me to ponder, "What is our son doing in his school? Is he studying well? Does he not need any text book for reading? Does he not do a lot of writing? Why does he not talk about different subjects? Why is he always relaxed? Why does he always talk about playing or fun making in school? ..." Such questions are enough for me to get worried. I suspect Atul is not getting "standard education" in Australia. He may forget all the things that he had learnt in Nepal. When he goes back to his country he may not be able to compete with his peers.

(Journal entry 1, 6/8/2008)

Gradually changing perspectives

Bina's worries about her child not learning enough in his new school in Australia led her to observe the school's literacy teaching and learning practices more closely. Gradually, her understanding began to develop. In another instance she expressed her views as follows:

Last week Atul had a sleepover at his school. This 'sleepover' had a lot of hidden meaning. The school wanted to teach students some 'risk taking', i.e. to make students more confident and fearless and independent.

From observing the school's circumstances I have realized that 'schooling' has a broad perspective in Australia. Children do not go there only to gain knowledge but they learn various sorts of life skills unconsciously; so, here, knowledge is for life – a long term goal. On the contrary, when I look back to my context, the scenario seems different. In Nepal, students go to school to gain knowledge; knowledge is for knowledge's sake, not for life's sake. The goal of education is very limited.

(Journal entry 2, 20/8/2008)

To broaden her perspectives on how literacy was being taught at Paterson Primary School, Bina started to observe classroom practices as well. Soon she found that not only print literacy but digital literacy was also embedded in literacy education. She reflected on this:

Last week I went to observe Atul's class. That day I got to learn a new thing i.e. the use of computer in the classroom. It was used purposefully there. Students were assigned to make their power point presentation on 'Ten ways of sustainability'. The very day, the teacher showed one of the students' work. Then I realized literacy is not related to language only, instead computer literacy is also equally important for children. 'Power point' is not a new term for a primary level student here.

(Journal entry 4, 4/9/2008)

With passing days, Bina had realised that Atul was learning several broader skills even if she could not see a lot of reading and writing activities as she had expected. She recorded her views in the following way:

I realize he is learning many broader things like he shows interest in sports activities and started playing footy and cricket. He has developed his ICT skills. He has learnt socialization skills. But still literary learning has not met my expectation in comparison to his previous performance in Nepal.

(Journal entry 7, 31/10/2008)

Bina's journal writing was continued in the year of 2009 too. She was curious to learn about literacy education. The following journal entry of hers reveals yet another literacy practice used in Paterson Primary school, which was not found in her home country, Nepal:

Yesterday Atul brought home an interesting piece of information. It was a permission form to be filled up by parents to let him participate in Victorian Premier's Reading Challenge'. I liked it; what a formal program to encourage children in reading. It was mentioned that students in years Prep-2 are required to read 30 books, 20 of which must be from the challenge list; students can read them by themselves or with the help of a parent or a teacher. Students in Years 3-6 need to read 15 books independently, 10 of which must be from the challenge list. To access a full list of books, the website was also given (www.education.vic.gov.au/prc)

Here, people have broader perspective in everything. In our context if children read prescribed textbooks, it's okay – limited resources. In contrast, here children can make their own choice, which book to read and which not to read. There are so many things layered in the system, it is really hard to identify from people like us (we need support in this area). What a golden opportunity that children get a chance to read "short listed" books at the very early age.

(Journal entry 4, 19/3/2009)

Bina's active participation in Atul's literacy learning helped her to gain deeper insight on how literacy practices were happening at her son's school. She documented her observation on Atul's camping as follows:

Atul's group (Year 5/6 students) went for camping for a week (20-24; Monday to Friday). It was a part of school curriculum. The purpose of this event was to

make students learn in out-of-school setting. Bishu had a camp book where he had to maintain his diary for every day. In addition, there was cross word puzzle (finding out campers' names) and vocabulary game (students were asked to write down the names of different things, A - Z that they saw on the way through bus).

I found another thing interesting that now they are practising 'recounting' in their class taking the reference of their camping. It's amazing how literacy teaching/learning happens without having any prescribed textbook! If we observe every school activity closely, we will certainly find some meaning there.

(Journal entry 14, 29/7/2009)

Bina gradually started to get a clear picture of how Atul was learning literacy. Her satisfaction is expressed below:

I have started to realise that Atul is learning in his own pace. He is trying his best to improve himself. In third term's school magazine his story was published. It was a kind of guided writing. Different words were given and students were asked to develop a story using those words. He had really written a good story and it got published. And his recount of their visit to the Immigration Museum was also published in the recent newsletter (sent home on 8th of October). This week I got his results from national level examination which was held in May this year. Considering that he is new to Australian Education system (it was 10 months of his arrival to Australia when he took that examination), he got excellent result.

(Journal entry 20, 12/10/2009)

The following text also supports Bina's broadening understanding of literacy education in the context of an Australian school.

In the beginning I was scared if Atul would be completely lost in the Australian school because he was exposed widely and in an entirely different way (in comparison to Nepal). But now I have started to realise that the kids may get ample opportunities to flourish their potentials. There are different ways to encourage them to take their specialities gradually out from within. With time the improvements in them can be seen. I feel his image as a bright student can be maintained here too. In the long run every kid (and their parents) may realise his/her strengths and weaknesses. If I look back, I can see a lot of improvements in Atul which I could not realise during the first year and kept worrying all the time. A certain amount of time must be given to observe changes if someone moves to a new context.

(Journal entry 28, 7/12/2009)

Discussion

When we consider two schools of thought of literacy – literacy as a social practice and literacy as a cognitive ability, Bina seems to come from the country where the second view of literacy was in practice. In the beginning she did not know that literacy is taught as a social practice in Australia. Because of this gap of understanding she expressed her frustration in her first journal entry. She wanted to see her son engaged in

print literacy doing a lot of reading and writing work but no such thing happened for her. Like other EAL parents in Bernhard and Freire;s (1999) and G. Li's (2006; 2007).studies Bina also preferred the use of traditional approaches in teaching reading and writing which include teaching phonics, giving homework and taking examinations.

Bina started to assimilate herself to the Australian literacy teaching/learning culture to make meaning of how exactly literacy was being taught in Paterson Primary School. Gradually, she started to understand that literacy does not mean print literacy alone. Slowly her understanding of literacy seemed to be broadened. She had realised that literacy includes not only the print literacy but it also means learning social skills, life skills and digital literacy. This has an implication that Bina's understanding of multiliteracies had been sharpened in the course of time. Through her close observation she learned that print literacy was also equally focussed in Atul's school. Time and again she emphasised the fact that in Australia literacy education has got broader perspectives whereas it has been understood narrowly in the context of Nepal.

Conclusion

Coming from a different sociocultural background Bina's understanding of literacy practices in the Australian school did not match with what she had brought from her home country Nepal. This mismatched understanding led her to observe the literacy education closely so that she could make the meaning of the differences that she found comparing Nepali and Australian literacy teaching learning practices. It should be noted that Bina was a PhD scholar and an English language teacher herself in Nepal. For her also it was difficult to understand the literacy teaching learning process when she was newly arrived in Australia. What could be the situation of other EAL parents who were less educated or not educated at all?

Bina's journal entries show that she was struggling by herself to understand how literacy was being taught and learned at her child's school. She even took her initiative to observe the lessons inside the classroom. Therefore, to help the EAL parents understand the literacy practices a special curriculum night programme or at least a dedicated session for newly arrived EAL parents could be organised by the school to address the issues in detail of textbooks, homework policy, assessment system, literacy pedagogy, communication system, teacher expectations of parents, and parent's role to support their children and parents also need the opportunity to raise these questions. Newly arrived ESL parents surely need explicit information on these issues as early as possible. In addition to this, such EAL parents should be invited to observe their children's classes to see what contents are taught and which techniques are used to teach these contents. These early steps are thought to be helpful to broaden the newly arrived EAL parents' understanding of literacy education in Australian schools.

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Cetrimonium Bromide: The Micellization Behaviors and Applications

Nabin Basnet*

Abstract

This article reviews on some factors which affect the cmc of CTAB and its practical applications. The factors reviewed were temperature, presence of organic co-solvent and presence of inorganic salt in the solution of CTAB. The increase in cmc of CTAB on increasing temperature was explained on the basis of kinetic motion of the molecules of solvent and surfactant and also on the basis of disruptions of the water structure surrounding the hydrophobic group. The increase in cmc on adding organic solvent was explained on the basis of dielectric constant of solvent and that of adding salt was on the basis of the force of electrostatic repulsion. It is mostly applied in preparation of antimicrobial compounds, nanoparticles, nano-crystallites, disinfectants etc. and in DNA Extraction.

Key word: CTAB, Cmc, Binary Solvent, Salting Out Effect

Introduction

Surfactants are the surface-active substances reduce the surface-tension of water. These are the amphiphiles that means these have hydrophilic polar head and hydrophobic non-polar tail. The Surfactants are classified according to charge on their head groups, that is the polar head may be positive or negative or both positive and negative charged or no charge. On the basis of charge, these are cationic, anionic, zwitterionic or non-ionic surfactants. Cetrimonium Bromide is a cationic surfactant, it is chemically known as cetyltrimethylammonium bromide (CTAB) or hexadecyltrimethylammonium bromide (HTAB). It is a quaternary ammonium salt having chemical formula $\text{CH}_3(\text{CH}_2)_{14}\text{CH}_2(\text{CH}_3)_3\text{N}^+\text{Br}^-$, and its molecular weight is 364.45. Its melting point range is $237\text{--}251^\circ\text{C}$ (Merk index, 1996; Bio world, 2016), its solubility in water at 20°C is 36.4 g/l (Bio world, 2016) i.e. completely soluble in water but sparingly soluble in acetone and practically insoluble in ether and benzene (Merk index, 1996). Its aggregation number and micellar weight in 0.013 M KBr are 169 and 62000 respectively (Debye, 1949). The structure of CTAB is as given below;

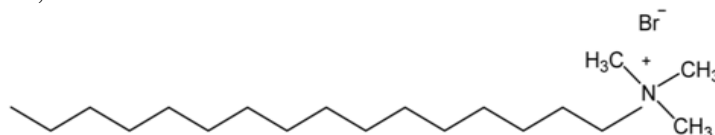


Fig 1 : The structural formula of CTAB

It is reported that the partial molar volume of the CTAB almost constant with increasing the surfactant concentration, and the partial molar volumes are found to increase with

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increasing temperature in the mixed solvent medium of methanol-water system. The partial molar volume is found to decrease with increasing methanol content in the solvent composition (Shah et al., 2009). Also, it is noted that, at room temperature, the partial molar volume of CTAB is found to increase in the presence of MgSO_4 and further more higher values have been noted in the presence of Na_2SO_4 (Bhattacharai et al. 2014a) but Jha et al. reported the decrease in partial molar volume of the CTAB in the presence of NaCl and KCl in aqueous medium (Bhattacharai et al. 2015). It is found that the CTAB decrease the cmc of sodium dodecylsulfate from the value 9.0 mmolL^{-1} (Mukerjee & Mysels, 1970) to a value of 7.60 mmolL^{-1} at 308.15 K. The decrease in cmc is due to the larger synergistic effects when two oppositely charged surfactants are mixed together (Bhattacharai, 2015). It is reported that in aqueous medium, the Cholesterol exist in monomers up to a concentration limit of 10^{-8} M , Stacked aggregates occurs up to 10^{-6} M and thereafter the aggregates coalesce into separate phase (Tanford, 1973) and the solubility of Cholesterol increases to $10.36 \times 10^{-6} \text{ M}$ in micellar solution of CTAB having concentration 10 mM (Pal & Moulik, 1983).

Materials and Methods

Abstracts, research papers and citations were collected by searching databases for the terms factors affecting *cmc*, effect of temperature on *cmc*, variation of dielectric constant of solvent on *cmc*, effect of adding inorganic salt on *cmc*, different methods for *cmc* determination of surfactant etc, were reviewed, data were collected and analysed.

Review and Discussion

Critical Micellization Concentration

Micelles are the association colloids formed by the aggregation of surfactant molecules after certain concentration. The minimum concentration of surfactant at which micelles start to form is known as critical micellization concentration (*cmc*) of the surfactant. The *cmc* is a measurement that quantifies the ability of a surfactant to form micelles; the lower the *cmc*, the greater the ability of the surfactant to form micelles and vice versa. The *cmc* is obtained by measuring any surfactant solution property (e.g. density, viscosity, surface tension speed of sound, light scattering intensity, light absorption, molar conductivity, etc.) as a function of surfactant concentration (Nasiru et al., 2011; Domínguez et al., 1997). The *cmc* of a particular surfactant also depends on different factors such as nature of solvent (aqueous or aqueous-organic solvent), temperature, dielectric constant of solvent, ionic strength of solvent, presence of co-surfactants etc. Therefore the *cmc* of CTAB was reviewed under some following headings:

CMC in water:

The water is known as universal solvent because of its ability to dissolve large number of compounds, in water *cmc* of various surfactants are reported including CTAB. Some reported *cmc* values, determined by conductivity and surface tension measurement methods are shown in table 1 and table 2 respectively.

Table 1: cmc of CTAB in water at different temperatures		
Temperature	Conductivity Cmc (mM)	Surface tension Cmc (mM)
301.15 K	0.9 (Cifuentes et al., 1997) 1.1 (Tang et al., 2006) 1.0 (Bhattarai et al., 2014)	0.95 (Jha et al., 2014a)
308.15 K	1.1 (Bhattarai et al., 2014b) 1.001 (Chakraborty et al., 2006)	1.102 (Chakraborty et al., 2006)

Table 2: cmc of CTAB in water at different temperatures (Olaseni et al., 2012)					
Solvent	Cmc (mM) of at different temperature (K)				
	293.1	298.1	303.1	308.1	313.1
Water	0.863	0.950	1.07	1.14	1.22

In the table 1, the values of cmc of CTAB are slightly different by each other investigators and also seen to vary on methods applied. Therefore, we can state that the cmc values of the surfactants or CTAB depend a little on the method by which it was determined. It is also reported the cmc of CTAB in aqueous solution at 30^{0C} is 0.89 mM Borse et al., 2014).

CMC in water-organic binary solvent

The cmc of CTAB was investigated by different authors in different water-organic binary solvent and obtained results were discussed in different papers. A few of them are tabulated below:

Table 3: cmc of CTAB in binary solvent of mthanol and water at three different temperature by conductometric method (Shah et al., 2013)			
Methanol (v/v)	308.15 K cmc (mM)	318.15 K cmc (mM)	323.15 K cmc (mM)
10%	1.37	1.68	1.79
20%	1.80	2.63	2.81
30%	4.60	5.75	5.81
40%	7.21	7.49	7.71

Table 4: cmc of CTAB in binary solvent of water and three short chain alcohols at 298.15 K by conductometric method (Nazir et al., 2009)			
Alcohol (v/v)	Cmc (mM) values in different short chain Alcohols (v/v)		
	Methanol	Ethanol	Propanol
0%	0.918	-	-
5%	1.091	1.115	1.216
10%	1.311	1.160	1.149
15%	1.501	1.116	0.912
20%	0.995	0.966	0.756

In the tables 3 and 4, the effect of alcohol and temperature on *cmc* of CTAB are given and it is seen that the addition of short chain alcohols in water increases the cmc of CTAB. The results in table 4, show that the *cmc* of CTAB increases with the increase in percentage of methanol in water up to 15% and decreases in 20% methanol. Also similar behavior was found in ethanol-water system up to 10% and decrease thereafter in 15% and 20%. But in 1-propanol-water systems, the cmc decreases just after 5% of propanol in water. Short chain alcohols are known to be structure breaker of water,

which helps to solubilize the surfactant molecules and favors for delaying *cmc* of CTAB. The presence of organic solvents in water also decrease the dielectric constant of solvent and the decrease in the constant decreases the counter ion binding tendency of surfactant molecules in the micelles and hence increases the head-head repulsion, so results is increase in *cmc* of CTAB (Nazir et al., 2009). This type of behavior is found up to 40% methanol in the results of Shah et.al at 308.15, 318.15 or 323.15 K (Shah et al., 2013) and up to 15% methanol, 10% ethanol and 5% 1-propanol in the results of Nazir et.al at 298.15 K (Nazir et al., 2009). In the two investigations (Shah et al., 2013; Nazir et al., 2009) the results are some where controversial after 20% methanol, although temperature is different, therefore require much more investigations in the study of *cmc* of CTAB in water-alcohol binary solvents.

In 5% solutions of methanol, ethanol and 1-propanol (Nazir et al., 2009), *cmc* increases with increase in c-atoms in alkyl chain of alcohols, the result can be explained on the basis of hydrophobic interactions between the non-polar tails of the surfactant molecules. The increase in c-atoms in alkyl chain of alcohols makes them to behave as co-surfactant rather than as a co-solvent, so decreases the hydrophobic interactions between the non-polar tails of the surfactant molecules and enhancing their kinetic activity in the solvent, thus disfavors *cmc*, also in the case of CTAB. The short chain alcohols increase *cmc* of CTAB initially because they break the water structure and decreasing the dielectric constant of the medium; disfavors micellization and hence increase *cmc*. But the effect last only up to certain concentration of alcohol in water since penetration effect occurs above certain concentration. As is seen in the table 4, there is increase in *cmc* up to 15%, 10% and 5% of methanol, ethanol, and 1-propanol concentrations respectively. Thereafter penetration of alcohols in the micelles favors micellization, the alcohol molecules oriented themselves in binary solvent that the alkyl chain just penetrates towards the micelle cores and OH groups just near the head groups at the interface of water and micelles (Emerson & Holtzer, 1967; Miyagishi, 1974). The penetration power of alcohols into the micelle cores increases with the no. of c-atoms in the alcohol, this is because the grater partition coefficient of alcohols with increase in c-atoms hydrocarbon chain in to water and hydrocarbon, therefore effective penetration of alcohol occurs at lower concentrations for higher chain alcohols than for lower chain alcohols (Nazir et al., 2009). Since 1-propanol has more penetrating power, because of its more no. of c-atoms than methanol and ethanol, the 1-propanol molecules go more deeper in to the micelles so that the OH groups lie very near to micelle head groups and decrease the repulsion among the head groups, and favors micellization, therefore decrease in *cmc* of CTAB occurs at much earlier concentration (>5%), but for methanol and ethanol the more penetration effect is seen after the concentration 15% and 10% respectively because of these contain less c-atoms than 1-propanol. Kumar et.al reported the increase in *cmc* of the CTAB with the increase alcohol amount in the binary mixed solvents including methanol, ethanol, n-propanol and i-propanol. Among these alcohols, the increase in *cmc* followed the order i-PrOH > n-PrOH > EtOH > MeOH (Kumar et al. 2012). It is also reported that the increase in the *cmc* with increase in DMF fraction in aqueous solution of CTAB (Sar & Rathod, 2011).

Olaseni et.al (2012) investigated *cmc* of CTAB in the binary solvent of EG, DMSO and

DMF with water at the mass fraction of 0.17-0.47 at four different temperatures 293.15, 298.15, 303.15 and 308.15 K. In the EG-water mixed solvent, *cmc* increases with increase in mass fraction of EG in the investigated range. The increase in *cmc* is explained as before that EG is water structure breaker, so reduces cohesive force and decrease the dielectric constant of solvent medium and hence disfavors micellization. Similar trend was seen in the case of DMSO and DMF. The DMSO and DMF increased the H₂O-DMSO and H₂O-DMF structure of the given binary solvent, because both the DMSO and DMF found to form stoichiometric hydrate of type DMSO.H₂O and DMF.H₂O with water. The formation of hydrate assumed to be restricted the motion of the surfactant molecule, which results the reduction in hydrophobic interaction and an increase in *cmc* (Olaseni et al. 2012). Furthermore, the DMSO and DMF both decrease the dielectric constant of the respective binary solvents, hence delaying the *cmc* of CTAB as discussed earlier.

CMC variation with temperature

The *cmc* of CTAB found to increase with increase in temperature of the solution in aqueous solvent, as well in binary solvent of water-organic mixture (Olaseni et al., 2012); Shah et al., 2013). The effect of temperature on the *cmc* of surfactant in aqueous solution has been analyzed in terms of two opposing factors. First, on increase in the temperature, the degree of hydration of the hydrophilic group decreases, which favors micellization, at the same time the increase in temperature also causes the disruptions of the water structure surrounding the hydrophobic group and this is unfavorable to micellization (Mehta et al., 2007). But the second effect predominates in the temperature range investigated (Olaseni et al., 2012); Shah et al., 2013). The delay in micellization of CTAB on increasing temperature can also be explained on the basis of kinetic motion of the molecules of solvent and surfactant. The increase in kinetic motion with temperature makes them more vibrating so that the surfactant head groups feel more repulsion, as a result delay in the stability of micelles. Hence increase in *cmc* value of the CTAB. It is reported the increase in *cmc* of the CTAB with increase in temperature in the binary solvents of short chain alcohols and water (Shah et al., 2013; Kumar et al. 2012), similar results are also reported for EG-water, DMSO-water and DMF-water binary solvent systems (Olaseni et al. 2012) and DMF-water system (Kumar et al. 2012). Also the Kraft temperature reported for CTAB in water vary considerable from 20^{0C} (Ducker & Wanless, 1999; Grosse & Estel, 2000) to 25^{0C} (Borse et al., 2014; Goyal et al., 1993; Goyal & Aswal, 2001) including 24.88^{0C} (Giongo & Bales, 2001). The kraft temperature of the CTAB increases with increasing concentration of inorganic salts such as NaBr in the solution (Giongo & Bales, 2001).

CMC in Presence of Salts

Shah et al. (2013) conductometrically determined the *cmc* of CTAB in the presence of KCl in methanol-water mixed solvent media containing 0.1 – 0.4 volume fractions of methanol and found that *cmc* decreased with addition or increase in concentration of KCl in the solvent. The result is supported by later researches in aqueous solvents (Bhattarai et al., 2014; Jha et al., 2014a; Bhattarai et al., 2014a). The salting out effect or decrease in *cmc* of CTAB by addition of inorganic salts can be explained as, the

addition of salt reduced electrostatic repulsion among the surfactant head groups, is a key factor to influence the morphology of aggregates in ionic surfactant solutions. For conventional single-chain cationic surfactants, micelles may change from global to rod like or wormlike with the addition of inorganic salts. Hence the *cmc* of surfactant found to decrease with addition of inorganic salts (Mu et al., 2002; Khatory et al., 1993). As the salt is added, electrostatic repulsive force among the ionic head groups of the surfactant molecules is reduced by shielding of micelle charge, by the counter ions from salt, so that spherical micelles are more closely packed by the surfactant ions (Aswal, V.K., & Goyal P.S. (2002), hence a decrease in the *cmc* values after addition of salts. It is reported that the addition of salts Na_2SO_4 and MgSO_4 separately decreases the *cmc* value of the CTAB (Bhattacharai et al. 2014a; Bhattacharai et al., 2014b) and also with separate addition of NaCl and KCl (Bhattacharai et al. 2014; Jha et al., 2014a; Jha et al., 2014b) .

Applications

It is widely used in the food processing, to stabilize emulsions and suspensions, and to improve the texture of the food products (Shah et al., 2009). The CTAB is an antimicrobial compound; it is identified as clinically relevant, novel anticancer agent for head and neck cancer (Ito et al., 2009). It is an active compound for the removal of biofilms such formed by *Pseudomonas fluorescens* (Simoes et al., 2005). It is also a Quaternary Ammonium Salt and Quaternary Ammonium Compounds (QAC's) are good disinfectants in food and medicinal industries (Mereghetti et al., 2000) , because of their hard surface cleaning, deodorization and antimicrobial properties (McDonnell & Russell, 1999). It is also applying for the synthesis of polymers, ceramics and nano-particles (John et al., 2002). The solubilization of Ibuprofen is increases in presence of CTAB, which will helps to drug delivery in the living body (Bhattamishra & Padhy 2009). It also noted that, it helps to control the nano-crystalline size and maintaining the stiochiometry of the various nano-crystallites (Sin, 2007). Yu and Kudo (2005) had synthesized bimetal (BiVO_4) nano-fibers with an average diameter of 100 nm and lengths of up to several micrometers by a surfactant assisted hydrothermal synthesis using CTAB, which proved to be an effective route to control the phase structure and morphology of the products. The Sb_2O_3 nanoparticles, nanowires, and nanoribbons have been selectively synthesized in a controlled manner under mild conditions by using CTAB as a soft template (Morsy, 2014). The CTAB with Triton-X 100 with phenol under suitable condition can be used for the determination of ammonia in the natural and waste water samples (Afkhami & Norooz-Asl, 2008). It is also used in extraction buffer during DNA extraction from plant leaves (Azmat et al., 2012).

Conclusion

The review found that, the *cmc* of CTAB depends on various factors such as temperature, inorganic salt, solvent properties etc. In the review, the increase in temperature, addition of alcohol and addition of inorganic salt increases *cmc* of CTAB. Among different monohydric alcohol, the increase in chain length also increases *cmc* of CTAB in the investigated range. It has the intense applications in the practical life in the form of antimicrobial compound or preparation of nano-particles.

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A case study of Knowledge, complexity and Compliance of Value Added Tax in Nepal

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Abstract

This study analyses the Public Perception on their level of tax knowledge and perceived complexity of the VAT system. Further, the study attempts to deal in the underlying reasons for non-compliance. Data was gathered through telephone interviews with thirty participants, and analyses using thematic analysis. Results suggest that taxpayers have inadequate technical knowledge and perceive VAT system as complex. Tax knowledge and tax complexity are viewed as contributing factors towards non-compliance behaviour among taxpayers. The data are collected through well structured questionnaire. For the purpose of analysis and interpretation the researcher has used the following statistical tools of SPSS. On the basis of analysis and interpretation the researcher introduces the major findings that the majority of the consumers pay tax but, they are not much aware of the VAT. Due to the high tendency of VAT the consumers try to avoid the payment of tax in Nepal.

Keywords: Tax knowledge, tax complexity, tax compliance, Consumer awareness, Perception, VAT.

Introduction

The self-assessment system (SAS) has been widely practiced around the global. Under this system, one issue that has been highlighted is the non-compliance behaviour. This unresolved issue could be probably due to the feature of SAS itself; that is the shift of responsibilities to compute tax payable from the tax authorities to taxpayers. In order to discharge these responsibilities, taxpayers are expected to be well-versed with the existing tax laws and provisions. This is especially crucial as they are answerable to the tax authorities in the case of a tax audit. Another prominent attribute of SAS is voluntary compliance, as the tax returns submitted by taxpayers are deemed to be their notice of assessment. In other words, penalty mechanisms will be applied if taxpayers do not submit a correct tax return within the stipulated period. One possible way of ensuring tax compliance, as suggested by previous studies is to enhance taxpayers' tax knowledge. Similarly, a less complex tax system would also encourage tax compliance (Cox & Eger, 2006; Richardson, 2006). Notwithstanding the importance of tax knowledge and low level of tax simplification on compliance behaviour, not much has been written on this issue in Nepal setting, except for few studies on readability of tax laws. Thus, this paper will address this gap. Using qualitative approach, this study intends to (1) reveal taxpayers' perceptions on their knowledge and complexity of the income tax system in Nepal, and (2) learn whether or not such perceptions affect their compliance behaviour. The results of this study can help the Nepal policy makers understand the important segment of tax knowledge and complexity of the income tax

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system so that appropriate improvements can be made to ensure high compliance in future. In addition, this paper will contribute to the tax literature in two ways: (1) the information obtained will add to the limited literature available in the internet, and (2) the information on tax knowledge and tax complexity may provide the basis to develop tax knowledge and tax complexity measures. The remainder of this paper is organized as follows: the following section contains a brief overview of the Nepal income tax system. This is followed by a review of literature on tax knowledge, tax complexity and compliance behaviour. This analysis and findings of the study, while Section 5 concludes the paper.

Nepal income tax system

The parliament of Nepal enacted Value Added Tax Act, 1995(2052) in 1995. Subsequently, VAT regulation was made in 1996. Although the Act was passed in 1995, its implementation was delayed due to political instability and strong opposition from the business community. VAT with single rate of 10% was fully implanted with effect from 16th November 1997, (Mangsir 1, 2054). It has replaced sales tax, hotel tax, contract tax and entertainment tax. It has been designed to collect same revenue as the four taxes it replaced. VAT is a new tax system for Nepal. VAT has been justified in the light of government fiscal imbalances and need for extra revenue mobilization through an efficient tax system. The Government of Nepal has increased VAT to 13% with effect from Magh 1, 2061.

Taxation and economic development are two closely interrelated concepts since taxation has an important role in a country's economic development. Taxation is an effective tool with which the government can mobilize internal resources for economic development. Nepal is one of the least developed countries. Nepal is suffering from chronic social and economic diseases. Nepal has not been able to collect necessary government revenue to cure such disease. Due to poor performance on internal revenue collection and mobilization, she has to still depend on foreign grants and loans. Unless remedy is made in due time, the country cannot run in the path of economic development.

VAT is the most recent innovation in the field of taxation. The concept of VAT was developed for the first time by Dr. Wilhelm V. Seimens in Germany in 1919. The concept of VAT was developed further in 1949 by a tax mission to Japan headed by Prof. Carl S. Shoup. The tax however remained as only a topic of academic interest until 1953. In 1954, France introduced a VAT covering the industrial sector. The tax was, however limited up to the wholesale level. By the end of 1960, only eight countries including France, Brazil, Germany, the Netherlands, Sweden, etc. had introduced VAT. Since then, VAT has been introduced by at least one country each year and by now it has been adopted by more than 120 countries. Vietnam ventured VAT for the first time in Asia in 1973 but it was replaced in short period. South Korea adopted VAT in 1977 and its continuing till this time. Therefore, it is the leading country in Asian continent. In south Asia, Pakistan is the first country introducing VAT. It introduced VAT in 1990. Bangladesh and Srilanka started VAT in 1992 and 1995 respectively. India had introduced modified VAT(MOD-VAT) in 1986 for

manufacturing products. Full VAT has been implemented there with effect from 1st April, 2003.

The concept of VAT in Nepal was introduced in early 1990s. Nepal government indicated an intention to introduced VAT in the eight plans. Subsequently, the Finance Minister declared to introduce a two-tier sales tax system to make the base of implementing VAT from the Fiscal year 1992/1993. A VAT task force was created in 1993 under the financial assistance of USAID in order to make necessary preparation for the introduction of VAT. The VAT task force prepared the draft of VAT legislation.

Value Added Tax (VAT) has been making highest contribution to GDP in last four years. Such contribution stood at 4.9 percent of GDP in FY 2012/13, which continued to grow reaching 5.5 percent in FY 2015/16. Likewise, the ratio of income tax to GDP has also been increasing. Such ratio stood at 5.1 percent in 2015/16. While analyzing the revenue trend for last four years, the ratio of all taxes to GDP has increased. Hence, the the ratio of all taxes continues to grow as a result of growing ratio of revenue to GDP.

The contribution of VAT to total revenue mobilization remained at 25.4 percent in FY 2015/16. Such contribution to total revenue mobilization continued to decline from FY 2013/14 to FY 2015/16 while contribution of such tax to revenue collection increased to 28.4 percent in the first eight months of current fiscal year 2016/17.

The contribution of income tax to total revenue normally remains higher in developed and developing countries. Resources for financing development needs get ensured if contribution of income tax increases and thus revenue growth become sustained. Even if income tax collection increases, tax system needs to be made fair, neutral and efficient so as to attain encouraging growth in the contribution of the income tax to total revenue. Since the major basis of revenue mobilization is VAT, revenue mobilization would be more effective if the VAT system is made more neutral and efficient.

Taxes as a major fiscal policy instrument and important government policy tools have an important role in increasing the rate of capital formation and thereby achieving the rate of economic growth. The role of taxation in economic development of country lies in its function of resources that country's productive capacity is enhanced. So every states needs resources whether to pay salary to government employees or to conduct development work, i.e. huge amount of money called revenue. The major source of revenue is tax.

Tax revenue may be classified as direct tax and indirect tax. Direct taxes comprise of income tax, property tax, vehicles tax etc. these taxes are directly imposed on a person or an organization that bears the tax burden ultimately. Indirect taxes comprise of excise duty, custom duty, sales tax, entertainment tax, value added tax (VAT) etc. these taxes are shifted to other people. In the context of Nepal, direct taxes have lesser contribution for resource mobilization compared to indirect taxes.

VAT is an indirect tax and definitely a new concept as compared to other taxes. It is the youngest and the most emerging tax. It is the most transparent, effective and efficient

indirect taxation which has established an account based modern transparent tax system. “VAT is a broad based tax on business designed to measure net value generated in a country”

Though VAT itself is a very scientific, transparent, broad based and investment friendly tax system many obstacles are there on the way of VAT. One of the challenges in implementing the VAT is taxpayers’ behavior. Tax administration found some taxpayers keeping dual accounting, issuing dual bills, taking VAT from the customer but not submitting to the government and charging VAT without registration into the VAT. So there is a need for discouraging such taxpayers. In addition to this lack of billing habit is another serious problem as there is a little or no practice of issuing the correct bill. Use of bills during sale of goods and consumables are still regarded as a waste of time and useless things by many consumers in the country. Some sellers use to compel the buyers to pay extra 13 percent amount, who will demand the bill. All these are anti VAT activities (NRB, 2076).

Hence low public awareness as well as taxpayers’ ignorance creates problems for the implementation of VAT in Nepal. There is need of the government awareness for the collection of tax and extended attention towards taxpayers’ education and better taxpayer obligation and coercive enforcement of the tax laws and regulations for the default and tax evading taxpayers. Taxpayer education and assistance tells them what they need to know to comply and when they need to know it.

Literature review

This section describes the selected past year studies on tax knowledge, tax complexity and compliance behavior.

Tax knowledge

Tax knowledge is an essential element in a voluntary compliance tax system (Kasippilai, 2000), particularly in determining an accurate tax liability (Palil, 2005; Saad et al., 2003). More recent studies undertaken in Malaysia (Loo, 2006; Loo et al., 2008; 2009) also suggested tax knowledge to be the most influential factor to determine taxpayers’ compliance behavior under the self-assessment system. This is empirically established by several other studies (for example, Kasipillai&Jabbar, 2003; Kirchler et al., 2006), which documented that possessing tax knowledge would lead to higher compliance rates. On similar note, the absence of tax knowledge may lead to non-compliance behavior among taxpayers, either intentionally or unintentionally. This is postulated by McKerchar (1995) who studied small business taxpayers in Australia. She suggested that small business taxpayers are not even aware of their tax knowledge shortfall and this may lead to unintentional non-compliance behavior. Such evidence was also documented among individual taxpayers in Malaysia who unintentionally committed mistakes in their tax return forms (Loo, et al., 2008). In this study, a mixed method design was used by conducting mail survey, quasi-experiment and case study concurrently between November 2005 and July 2005. The abovementioned studies, which indicate a positive relationship between tax knowledge and compliance behavior, however, were not consistent with an earlier study by Harris (1989), who claimed that

tax knowledge has no direct significant effect on taxpayers' compliance behavior. One possible explanation for such inconsistent results is the difference in tax jurisdictions. The studies mentioned above were either conducted in Malaysia or Australia, while this study was conducted in the US. Another potential reason may be that the different measures were used in the studies.

Tax complexity

Tax complexity arises due to the increased sophistication in the tax law (Richardson & Sawyer, 2001). Tax complexity can take many forms such as computational complexity, forms complexity (American Institute of Certified Public Accountants, 1992), compliance complexity, rule complexity (Carnes & Cuccia, 1996), procedural complexity (Cox & Eger, 2006) and the low level of readability (Pau et al., 2007; Richardson & Sawyer, 1998; Saw2.10. Taxpayer awareness as a mediating variable

Tax socialization aims to improve the understanding of taxpayers against the prevailing tax regulations, awareness and compliance of taxpayer in paying their tax obligations. Rohmawati, et.al (2013) in their research revealed that the tax socialization may affect the taxpayer's awareness and will have an impact on taxpayer compliance. Self assessment system requires taxpayers better understand the tax regulations in order to carry out the tax obligations well. Tax socialization be structured, will help taxpayers understand the tax laws that in turn will bring to taxpayers that paying taxes is the responsibility of every citizen must be carried out by obedient.

Someone who has had a tax id number means it has been registered as a taxpayer who is ready to fulfill their tax obligations. TIN provides many benefits both individuals and business entities, for instance, as a prerequisite for opening a bank account, apply for a credit proposal, conduct business transactions and others. Realizing the benefits of ownership of TIN, the taxpayer aware of the obligation and obey to pay taxes.

Tax authorities will continue to increase taxpayer compliance in paying taxes by simplifying tax administration, in order to provide convenience to the taxpayer. Simplification of the tax administration will not succeed if it is not supported by quality service tax authorities. Taxpayers like consumers on quality service, then this must be considered by the tax authorities to raise awareness and taxpayer compliance. Suryadi (2006) emphasizes the importance of the quality of the tax authorities in providing services to taxpayers. Good service quality can increase awareness and taxpayer compliance.

H1: Taxpayers awareness mediates the relationship between tax socialization and tax compliance

H2: Taxpayers awareness mediates the relationship between tax knowledge and tax compliance

H3: Taxpayers awareness mediates the relationship between expediency of tax id number and tax compliance

H4: Taxpayers awareness mediates the relationship between service quality and tax compliance.

Methods

The study population consisted of individual taxpayers who registered at the tax office located in Jhapa and Kathmandu as 2267 persons. The study use an accidental sampling technique, and uses questionnaires as an instrument to collect data by spreading it to the taxpayers who come to the tax office. Therefore, the sample size with a margin of error of 10% is:

$$n = 2267 / ((1 + 2267) * 0.1) * 2$$

$$n = 99.9559 \text{ rounded to } 100$$

The object of this study is the tax socialization, tax knowledge, expediency of tax awareness, and tax compliance which the taxpayers awareness mediates the relationship between tax socialization, tax knowledge, service quality, and tax compliance. Variable measurement using a Likert scale with 5 scales choices are 1 (strongly disagree), 2 (disagree), 3 (doubtful), 4 (agree), 5 (strongly agree).

Validity and reliability test

Validity test was used to measure whether or not a questionnaire valid. If the corrected item-total correlation > r table means the data is valid (Ghozali, 2011). Reliability test was used to determine the measurement results remain consistent if it is done twice or more of the symptoms are the same as using the same measuring instrument. Constructs or variables said to be reliable if it gives the value of Cronbach Alpha > 0, 60 (Ghozali, 2011).

Normality test and Classical assumption test

The normal distribution test in this study using normal probability plot. Classical assumption test for linear regression model is made to ensure that the model is free from multicollinearity, autocorrelation, and heteroscedasticity.

Multiple Linear Regression Analysis

$$Y1 = \alpha + \beta1X1 + \beta2X2 + \beta3X3 + \beta4X4 + e \quad (1)$$

$$Y2 = \alpha + \beta1X1 + \beta2X2 + \beta3X3 + \beta4X4 + Y1 = \alpha + \beta1X1 + \beta2X2 + \beta3X3 + \beta4X4 + \beta5Y1 + e \quad +2$$

where:

Y1 = taxpayers awareness

Y2 = taxpayers compliance

X1 = tax socialization

X2 = tax knowledge

X3 = expediency of tax id number

X4 = service quality

e= Error

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ = regression coefficients

Following that, using α 5% the hypothesis will be tested statistically, the t and F test using multiple regression.

Analysis and results

A total of 2,267 potential participants were invited to take part in this study. However, only 100 participants were finally interviewed via telephone. The participants comprise of 80 males and 20 females, from different regions in Nepal. The largest group of participants reside in Kathmandu and Jhapa. Prior to interviews, a set of general questions relating tax knowledge, tax complexity and compliance behaviour were prepared. The interviews were recorded and transcribed. A step-by step thematic analysis was then performed on the transcribed data. Results indicated that some participants had a general idea of the income tax system but not much on the details of the system. They admitted that their knowledge was restricted to a broad knowledge of the income tax such as, the objectives of income tax, types of income tax, and tax rates.

The majority of the participants explicitly claimed the importance of technical knowledge of the income tax system. This does make sense due to the need to apply tax knowledge when meeting their income tax obligations. When the lacking of technical knowledge of taxation is not so much an issue for salary and wage earners

From the interviews, very few participants mentioned their knowledge of the legal aspects of the income tax system. This could be due to the fact that they had little of it and/or they did not find it to be an important aspect of income tax to discuss. From the findings, we can infer that the most important type of knowledge to taxpayers is technical knowledge. This can be drawn from their responds while being interviewed where majority of interviewees were discussing about this type of knowledge. This is followed by the general knowledge and the least important is the legal knowledge. Notwithstanding the importance of the technical knowledge, most of the interviewees admitted to have limited knowledge on this aspect that eventually forced them to seek tax professionals' assistance. On note, McKerchar (1995) and Loo et al. (2008) cautioned the possibility that this tax knowledge shortfall could lead to unintentional noncompliance behavior among taxpayers, as what happened in Australia and Malaysia.

During the final section of the interviews, participants were probed on the reasons for tax non-compliance. The first reason is the taxpayers' attitude of being greedy and no feelings of civic duty to share their incomes with other members of the society. Secondly, is the taxpayers' belief that they could avoid paying tax without being caught by Inland Revenue. Such perceived behavioral control among taxpayers motivated them to constantly not comply with their tax obligations. Some attributed that control to the assistance provided by the accountants, while others blamed the loopholes in the tax system itself that provided room for manipulation. Thirdly, is the complexity of the income tax system which compelled taxpayers to not comply, either intentionally or unintentionally. Finally, is the fairness perception of the income tax system. Participants clearly mentioned that their negative perceptions of the income tax system, particularly

on the tax rate structures and government spending, had motivated them to avoid and evade paying tax.

Conclusion

This study investigates taxpayers' view on their level of tax knowledge, perceived complexity of the income tax systems and the underlying reasons of non-compliance behavior. From the interviews, taxpayers appeared to have inadequate knowledge on the technical aspects of the income tax system. This issue was even critical among the self-employed participants who are expected to deal with onerous tax matters. In dealing with these tax affairs, they may have to incur more compliance costs. The VAT system was also perceived as inherently complex. The huge amount of paperwork to be completed in complying with their tax obligations further escalated the problem. This is not surprising as the Nepal tax system has been criticized for being overly complex. With regard to compliance behavior, participants generally believed that attitude, perceived behavioral control, complexity and fairness perceptions have partly contributed to taxpayers' non-compliance. The information obtained from this study would be beneficial to both tax literature and practice. In terms of tax literature, this information will serve as guidelines for researchers to develop tax knowledge and tax complexity measures. Also, the information on possible determinants of non-compliance could be used for future research. From the policy makers' perspectives, this information will assist tax authority to develop their tax education and simplification program.

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Equivalence between the Area under a curve and the Riemann Sum

Shantiram Subedi*

Abstract

This study investigates how students understand and apply both the concepts of area under a curve and the definite integral with Riemann Sum at a same time. I got an impetus from the idea that the area under a curve with a definite closed figure with a boundary can be discovered by creating it into small rectangular slices and by summing up these areas them together. This very method is helpful to teach students the concept of Riemann sum as well as the definite integrals in the classroom effectively. In order to understand the Riemann Sum, it is quiet essential to have a clear idea regarding the area under a curve.

Key words: Definite integrals, Riemann Sum, induction, equivalent, trajectory, approximating rectangles.

Introduction

Students use area under a curve as a tool for computing definite integral. This research article is presented to explain what we mean by definite integral. The purpose of this article is to examine how there is equivalence between the area under a curve and definite integral. There is a question why the area under a curve is helpful when deeper understanding of the structure behind the definite integral is presented. This concept is imperative for students to understand for three main purposes: First, students need to have an understanding of the structure of Riemann sums. When Riemann sum may not be most efficient method for approximating a definite integral, other methods, such as the trapezoidal rule, midpoint rule, or Simpson's methods are based on the structure of the Riemann sum.

This leads to the second reason that many real world applications involve functions that do not have an anti-derivative that can be expressed in terms of elementary functions. For example, the anti-derivative of the function $f(x) = e^{x^2}$ cannot be expressed in terms of elementary functions. Thus, the Fundamental Theorem of Calculus cannot be applied, and other methods for evaluating the definite integral, such as Riemann sum will be needed.

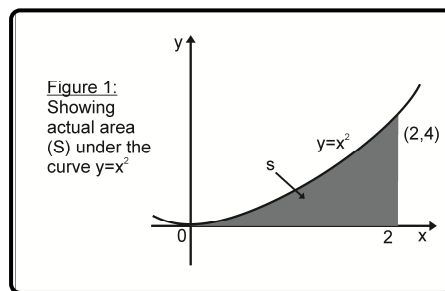
Finally, I hypothesized that an understanding of Riemann sums is needed even when a function has an anti-derivative that can be expressed in terms of elementary functions. Setting up an appropriate definite integral requires the students to know what to integrate, and an understanding of the structure of the Riemann sum will give the student the tools he/she needs. In all cases, it is possible to imagine the definite integral being represented by the area under a curve.

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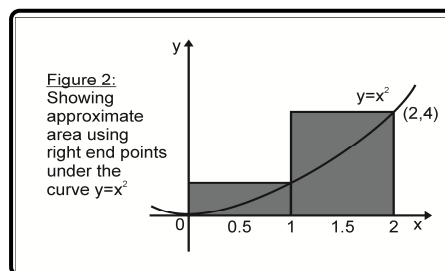
The method of calculating the area under the curve is called the integration. Dictionary.com defines the integration as “the act or process of making whole or entire”. There are several pieces of literature that focus on mathematical topics that build the definite integral: $\lim_{n \rightarrow \infty} \sum_{i=1}^n f(x_i) \Delta x$. Multiplications, rate of change, sequence and series, limits, and functions are all incorporated into the definite integral, and several researches have been done to understand these concepts. The study of Artigue(1991) found that many students could perform routine procedures for finding the area under a curve, but the students rarely could explain their procedures, and some even admitted that they “ didn’t really know why they were doing it” (Artigue, 1991). Much integration in the beginning of its study do not attend to understanding why area under a curve is equal to the definite integral of a function. This article attempts to provide numerical succession and data that show, when integrating real world problems, students need to understand why there is a relationship between the area under a curve and the definite integral holds. This article focuses on different aspects of area under a curve that approximate the actual area and how it becomes equivalent to definite integral. Thus, a hypothetical learning trajectory was created.

Data Analysis

The area of a region under a curved boundary can be approximated by summing up the areas of a collection of rectangles. The following illustration is the area under a parabola $y = x^2$ from $x=0$ to $x= 2$, the parabolic region is represented by S.



Since S is contained in a rectangle with side lengths 2 and 4, the area S must be somewhere between 0 and 8. This article certainly does better than that by using more rectangles inside the region S that can increase the accuracy of the approximation. The following illustration is served steadily to estimate the area of a region under the curve $Y=x^2$ from $x=0$ to $x=2$. Suppose we divide S into two strips by drawing the vertical line $x=1$ as in the figure.



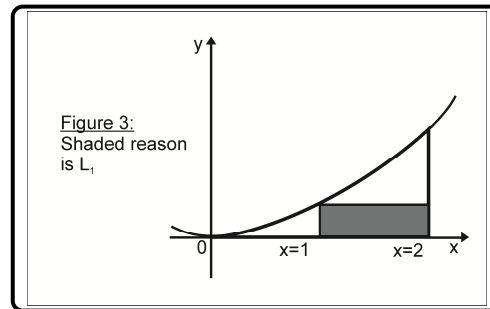
The heights of these rectangles are the values of the function $y = x^2$ at the right end points of the sub intervals $[0,1]$ and $[1,2]$. Each rectangles has width 1 and the heights are 1^2 and 2^2 . If we let R_1 be the sum of the areas of these approximating rectangles, we get

$$R_1 = 1 \cdot (1^2) + 1 \cdot (2^2) = 5.$$

From figure we see that the area A of S is less than R_1 , so

$$A < R_1.$$

Next, instead of using the larger rectangles in figure we could use the smaller rectangles in the following figure whose heights are the values of the function $y = x^2$ at the left endpoints of the subintervals $[0,1]$ and $[1,2]$.



Each rectangles has width 1 and the heights are 0^2 and 1^2 . We let L_1 be the sum of the areas of these approximating rectangles. Here left most rectangles have collapsed because its height is 0. The sum of these areas of these approximating rectangles is

$$L_1 = 1 \cdot (0^2) + 1 \cdot (1^2) = 1.$$

From figure, we see that the area A of S is larger than L_1 , so

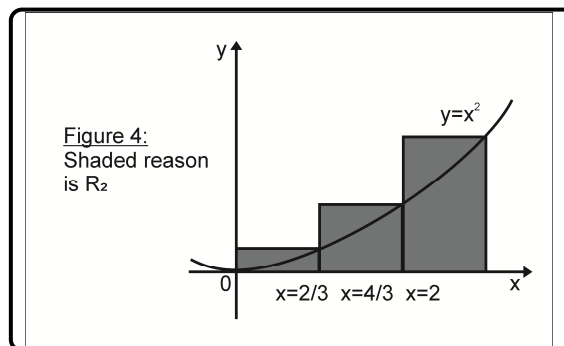
$$L_1 < A.$$

So we have lower and upper estimates for A are

$$1 < A < 5 \text{ i.e. } L_1 < A < R_1$$

We can repeat this procedure with one more strip. The following illustration shows what happens when we divide the region S into three strips of equal width.

Suppose we divide S into three strips by drawing the vertical lines $x = \frac{2}{3}$ and $x = \frac{4}{3}$ as in the figure.



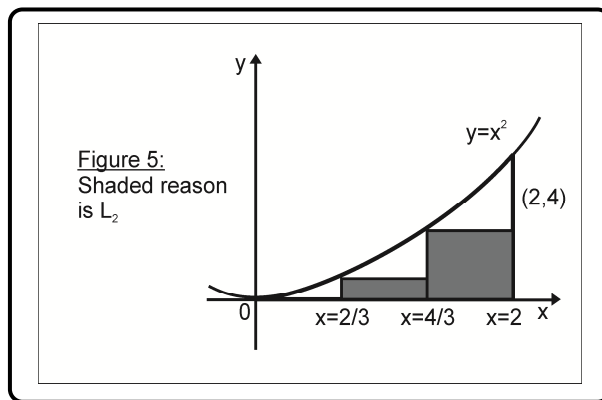
The heights of these rectangles are the values of the function $y = x^2$ at the right end points of the sub intervals $[0, \frac{2}{3}]$ and $[\frac{2}{3}, \frac{4}{3}]$ and $[\frac{4}{3}, 1]$. Each rectangles has width $\frac{2}{3}$ and the heights are $(\frac{2}{3})^2$, $(\frac{4}{3})^2$, and 2^2 . If we let R_2 be the sum of the areas of these three approximating rectangles, we get

$$R_2 = \frac{2}{3} \cdot (\frac{2}{3})^2 + \frac{2}{3} \cdot (\frac{4}{3})^2 + \frac{2}{3} \cdot 2^2 = 4.148.$$

From figure we see that the area A of S is less than R_2 , so

$$A < R_2.$$

Instead of using these larger rectangles in figure, we could use the smaller rectangles in the following figure whose heights are the values of the function $y = x^2$ at the left endpoints of the subintervals $[0, \frac{2}{3}]$ and $[\frac{2}{3}, \frac{4}{3}]$ and $[\frac{4}{3}, 1]$. Each rectangles has width $\frac{2}{3}$ and the heights are 0^2 , $(\frac{2}{3})^2$ and $(\frac{4}{3})^2$



We let L_2 be the sum of the areas of these approximating rectangles. Here left most rectangles has collapsed because its height is 0. The sum of the areas of these three approximating rectangles is

$$L_2 = \frac{2}{3} \cdot (0)^2 + \frac{2}{3} \cdot (\frac{2}{3})^2 + \frac{2}{3} \cdot (\frac{4}{3})^2 = 1.48.$$

From figure, we see that the area A of S is larger than L_2 , I.e.

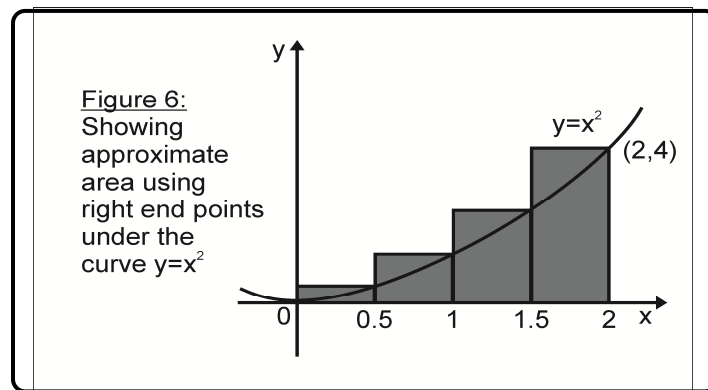
$$L_2 < A$$

So we have lower and upper estimates for A are

$$1.48 < A < 4.148 \text{ i.e. } L_2 < A < R_2$$

We can further repeat this procedure with one more strip. The following illustration shows what happens when we divide the region S into four strips of equal width.

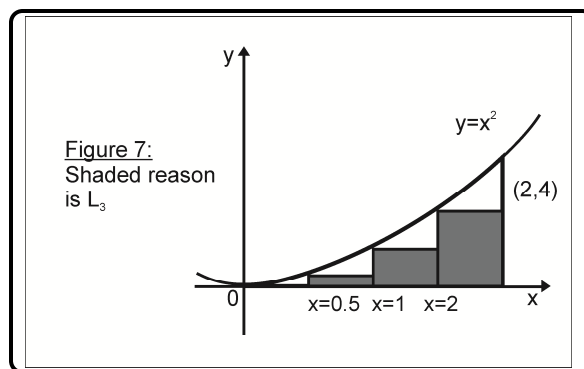
Suppose we divide S into four strips by drawing the vertical lines with right end points $x=0.5$, $x=1$, $x=1.5$ and $x=2$. Each rectangles with an equal base of width 0.5 and heights are 0.5^2 , 1^2 , 1.5^2 and 2^2 .



If we let R_3 be the sum of the areas of these rectangles, we get
 $R_3 = 0.5 \{0.5^2 + 1^2 + 1.5^2 + 2^2\} = 3.75$

From both numerical and figure, we estimate the actual area A below the curve is
 $A < 3.75$.

Instead, if we take the left endpoints of the rectangles with $X_0=0$, $X_1=0.5$, $X_2=1$, $X_3=1.5$. Each rectangle with an equal base of width 0.5 and height from the right end points are 0^2 , 0.5^2 , 1^2 , 1.5^2 .



If we let L_3 be the sum of the areas of these rectangles, we get
 $L_3 = 0.5 \{0^2 + 0.5^2 + 1^2 + 1.5^2\} = 1.75$

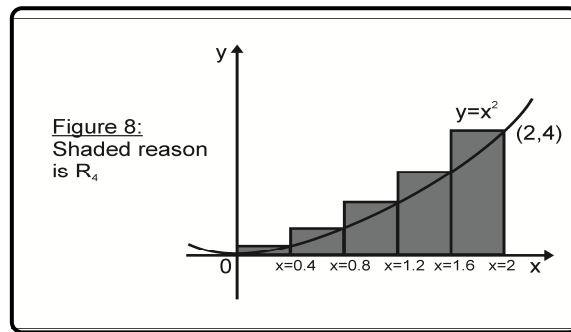
From both numerical and figure we estimate the actual area A below the curve is
 $1.75 < A$

We observe that the area A lies in between

$$1.75 < A < 3.7$$

$$i.e. L_3 < A < R_3$$

What will happen if we repeat the same process with five numbers of strips?
 Suppose we divide S into five rectangles using the right end points $X_1=0.4$, $X_2=0.8$, $X_3=1.2$, $X_4=1.6$ and $X_5=2$. Each rectangles with equal base of width 0.4 and heights from the right endpoints are 0.4^2 , 0.8^2 , 1.2^2 , 1.6^2 and 2^2 .

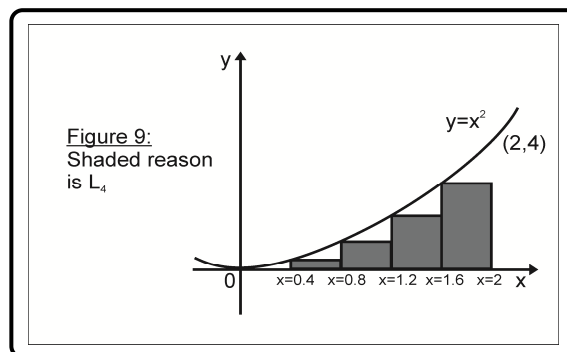


If we let R_4 be the sum of areas of these rectangles we get

$$R_4 = 0.4 \{0.4^2 + 0.8^2 + 1.2^2 + 1.6^2 + 2^2\} = 3.52.$$

From both numerical and figure we estimate the actual area below the curve is $A < 3.52$

Instead, if we take the left end points of the rectangles with $X_0=0$, $X_1=0.4$, $X_2=0.8$, $X_3=1.2$, $X_4=1.6$. Each rectangles with equal base of width 0.4 and heights from the left endpoints are $0^2, 0.4^2, 0.8^2, 1.2^2, 1.6^2$.



If we let L_4 be the sum of areas of these rectangles, We get $L_4 = 0.4 \{0^2 + 0.4^2 + 0.8^2 + 1.2^2 + 1.6^2\} = 2.4$

From both numerical and figure we estimate the actual area as below the curve is $2.4 < A$. We observe that the actual area lies in between

$$2.4 < A < 3.52 \quad \text{i.e. } L_4 < A < R_4$$

What will happen if we continue the process of taking more rectangles?

We can now compare the four results:

$$1 < 1.48 < 1.75 < 2.4 < A < 3.52 < 3.75 < 4.148 < 5$$

$$\text{i.e. } L_1 < L_2 < L_3 < L_4 < A < R_4 < R_3 < R_2 < R_1$$

From these series of pattern we are suggested that a better estimates of the area is obtained by increasing the number of rectangles or equivalently decreasing the width of the rectangles (here the width are decrease as $1, \frac{2}{3}, 0.5, 0.4$ and the number of rectangles has increased from 2,3, 4,5).

What will happen if we decrease the width of the rectangle or equivalently increase the number of rectangles more and more? We have presented carefully the

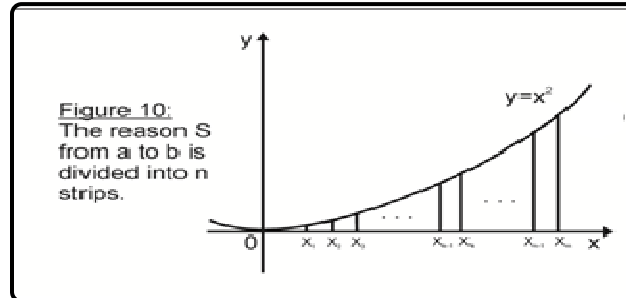
following comparative estimations of the actual area (A) under the curve from closer observations in our interest

$$L_1 < L_2 < L_3 < L_4 < A$$

$$\text{And } A < R_4 < R_3 < R_2 < R_1$$

What are our concentrations here? We can obtain better estimates by increasing the number of strips. If we use 20 strips the area A lies between 2.5676 and 2.7675. With 50 strips the area A lies between 2.6158 and 2.7158. With more number of strips we narrow it down even more.

Let's apply ideas of the above induction to more general region S of figure.



Let function $f(x)$ is continuous in $[a,b]$. We divide the interval $[a,b]$ into n sub-intervals and x_k be a point on each interval $[x_{k-1}, x_k]$, where $k=1,2,3,\dots,n$. We start by subdividing the region S into n rectangles with regions S_1, S_2, \dots, S_n of equal width in the following figure .

The width of n rectangles is $\Delta x = \frac{b-a}{n}$.

The end points of interval are $x_0 = a, x_1 = a + \Delta x, x_2 = a + 2\Delta x, x_3 = a + 3\Delta x, \dots, x_{n-1} = a + (n-1)\Delta x, x_n = a + n\Delta x (=b)$.

The heights of the rectangle are $f(x_0), f(x_1), f(x_2), \dots, f(x_{n-1}), f(x_n)$

The sum $\sum_{k=1}^n f(x_k)\Delta x$ or $\sum_{k=0}^{n-1} f(x_k)\Delta x$ is called the Riemann sum.

The actual area A of the region S that lies under the graph of the continuous function $f(x)$ is the limit of the areas of approximating rectangles. If the number of subintervals is larger, then the length of subintervals becomes smaller. i.e. if $n \rightarrow \infty$, then $\Delta x \rightarrow 0$.

If we use right endpoints

$$\lim_{n \rightarrow \infty} R_n = \lim_{n \rightarrow \infty} \Delta x [f(x_1) + f(x_2) + \dots + f(x_n)] \Delta x = \lim_{n \rightarrow \infty} [\sum_{i=1}^n f(a + i\Delta x)]$$

If we take the left end points

$$\lim_{n \rightarrow \infty} L_n = \lim_{n \rightarrow \infty} \Delta x [f(x_0) + f(x_1) + \dots + f(x_{n-1})] \Delta x = \lim_{n \rightarrow \infty} [\sum_{i=0}^{n-1} f(a + i\Delta x)]$$

This makes the actual area A to lie on

$$\lim_{n \rightarrow \infty} L_n < A < \lim_{n \rightarrow \infty} R_n$$

Then the limiting value of $f(x)$ from $x=a$ to $x=b$ is

$$\lim_{n \rightarrow \infty} \Delta x \sum_{i=1}^n f(a + i\Delta x) = \lim_{n \rightarrow \infty} \Delta x \sum_{i=0}^{n-1} f(a + i\Delta x)$$

This limit if exists is known as the "Definite Integral" and it is denoted by:

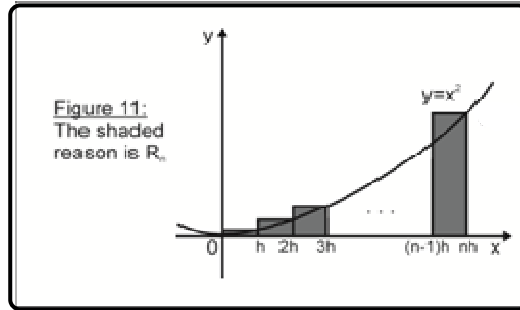
$$\int_a^b f(x)dx.$$

Thus we have finally

$$\lim_{n \rightarrow \infty} \Delta x \sum_{i=1}^n f(a + i\Delta x) = \lim_{n \rightarrow \infty} \Delta x \sum_{i=0}^{n-1} f(a + i\Delta x) = \int_a^b f(x) dx.$$

Finally, we use the Riemann sum to estimate the approximate area under the above curve.

Suppose we divide S into finite n strips by drawing the n vertical lines between $x=0$ and $x=2$ as in the figure.



The heights of these rectangles are the values of the function $y = x^2$ at the right end points of the n number of subintervals $[0, h]$ and $[h, 2h], [2h, 3h], \dots, [(n-1)h, nh]$. Each rectangles has width h unit and the heights are $h^2, (2h)^2, \dots, nh^2$. But here the last endpoint is nh and it is equal to 2. So $nh=2$ i.e. $\frac{2}{n} = h$ and so as $n \rightarrow \infty, h \rightarrow 0$.

If we let R_n be the sum of the areas of these approximating rectangles, we get

$$R_n = h[h^2 + (2h)^2 + \dots + (nh)^2]$$

$$= h^3 [1^2 + 2^2 + \dots + n^2]$$

$$= h^3 \left[\frac{n(n+1)(2n+1)}{6} \right]$$

$$= \frac{nh(nh+h)(2nh+h)}{6}$$

$$= \frac{2(2+h)(4+h)}{6}$$

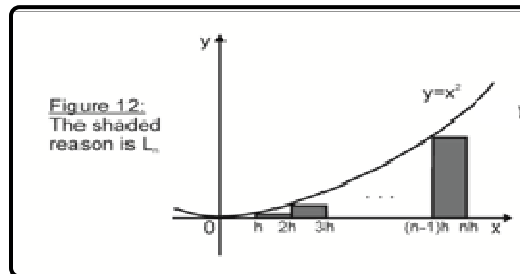
$$\lim_{h \rightarrow 0} R_n = \lim_{h \rightarrow 0} \frac{2(2+h)(4+h)}{6}$$

[Taking limit as $h \rightarrow 0$]

$$= \frac{2(2+0)(4+0)}{6} = \frac{8}{3}$$

Instead of using the right endpoints we could use the left endpoints in the following figure whose heights are the values of the function $y = x^2$ at the left endpoints of the subintervals $[0, h]$ and $[h, 2h], [2h, 3h], \dots, [(n-1)h, nh]$.

Figure 12:



Each rectangles has width h unit and the heights are $0^2, h^2, (2h)^2, \dots, \{(n-1)h\}^2$. But here the last endpoint is nh and it is equal to 2. So $nh=2$ i.e. $\frac{2}{n} = h$ and so as $n \rightarrow \infty, h \rightarrow 0$.

If we let L_n be the sum of the areas of these approximating rectangles, we get

$$\begin{aligned}
 L_n &= h[(0)^2 + h^2 + (2h)^2 + \cdots + \{(n-1)h\}^2] \\
 &= h^3[1^2 + 2^2 + \cdots + (n-1)^2] \\
 &= h^3 \left[\frac{(n-1)(n-1+1)(2(n-1)+1)}{6} \right] \\
 &= \left[\frac{(nh-h)(nh)(2nh-h)}{6} \right] \\
 &= \left[\frac{(2-h)(2)(4-h)}{6} \right] \\
 \lim_{h \rightarrow 0} L_n &= \lim_{h \rightarrow 0} \left[\frac{(2-h)(2)(4-h)}{6} \right] \quad [\text{ Taking limit as } h \rightarrow 0] \\
 &= \frac{(2-0)(2)(4-0)}{6} = \frac{8}{3}
 \end{aligned}$$

So we have both lower and upper estimates for A are equal to $\frac{8}{3}$ and this is the exact value of the region under the curve $y = x^2$ between the ordinates $x = 0$ and $x = 2$ above x - axis.

Conclusion

There are various techniques of understanding integration, which are discussed in the field of CALCULUS. Among them the area under a curve and the Riemann sum are mathematically equivalent. Though area under a curve is not sufficient for understanding the definite integral, it can be a powerful tool for understanding the definite integral. There is a close relationship between the area under a curve and Riemann sum.

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Evaluation of Water Quality Index and Physico-Chemical Analysis of Ratuwa River of Damak in Dry Season

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Roshani Ghimire**

Arun Kumar Shrestha***

Abstracts

Water quality is the index of the good health and well-being of society. So it is one of the great concerns all over the world. Our objective is to analyze the physicochemical parameters and calculate the WQI of Ratuwa River in the dry season especially from January to April. In the present study, we measured 17 physicochemical parameters using the standard APHA method. The laboratory test was carried out in the Nepal Batabaraniya Sewa Kendra, Biratnagar. Calculate the water quality index and the result showed that WQI ranged from 113.90 to 197.43. And it was highest in March and lowest in February.

Introduction

Water is an elixir of life [1]. It is an essential component of the environment and it sustains life on the earth. All organisms depend on water for survival. Clean and safe water is an absolute need for a healthy and productive life. Water has a profound influence on human health and the quality of the water supplied is important in determining the health of individuals and whole communities. Safe drinking water is a major concern with reference to public health importance as the health and wellbeing of the human race is closely tied up with the quality of water used [2]. Rivers play a major role in the assimilation or transportation of municipal and industrial wastewater [3]. The contaminated river water is not a good sign for human health and other aquatic organisms as it creates numerous health hazards. Several health hazards will also arise due to the contamination of water. There are a number of reported cases of typhoid, diarrhea and other water-borne diseases arising from the consumption of contaminated water [4]. So with an increased understanding of the importance of drinking water quality to public health and raw water quality to aquatic life, there is a great need to assess surface water quality [5]. Access to safe drinking water is the key to sustainable development and essential to food production, quality health, and poverty reduction. Quality of water can be checked by examining its various Physico-chemical and microbial parameters. Any alteration beyond the permissible range in these parameters makes the water polluted and may be unfit for any purpose for which it is intended to use. Natural calamities and anthropogenic activities also pollute the river so regular monitoring and analyzing of river water are necessary. The first time, Shrestha and Basnet (2018) had evaluated the water quality index of Ratuwa River during the pre and post-monsoon period and their results showed the extremely high value of WQI [6].

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The present work is the continuation of that work and in the work; we have attempted to evaluate the WQI in the dry season to compare it with previous work.

In this study, Seventeen physicochemical parameters such as color, turbidity, pH, electrical conductivity (EC), total suspended solids (TSS), total dissolved solids (TDS), sulphate, chloride, nitrate, total phosphorus (TP), total hardness, total alkalinity, calcium, magnesium, iron, sodium and dissolved oxygen (DO) of samples are analyzed to understand the pollution level of Ratuwa river. Their average values are compared with NDWQS standards and also used to evaluate WQI. Such a type of work is vital to inform and create awareness among the people and authorities of the municipality about the pollution status of river and direct consequences on their health and recreational works. The monitoring of these parameters can also play a vital role in the conservation and management of Ratuwa River.

Water Quality Index Computation

WQI is an effective tool that represents the overall water quality at a certain place and time based on physicochemical and microbial parameters [4]. Horton (1965) has first used the concept of WQI then developed by Brown *et.al.* (1970) and improved by Deininger (Scottish development department, 1975).

The calculation of WQI using this method is given in Equation (1).

$$WQI = \frac{\sum q_n W_n}{\sum W_n} \quad (1)$$

Where q_n and W_n be the Quality rating and Unit weight of n^{th} water quality parameter.

The quality rating (q_n) is calculated using the relation given in Equation (2)

$$q_n = \left[\frac{(V_n - V_{io})}{(S_n - V_{io})} \right] \times 100 \quad (2)$$

Where, V_n , V_{io} and S_n be the estimated value, ideal value and standard permissible value of the n^{th} parameter. For all parameters, ideal values (V_{io}) were taken as zero for drinking water except for pH=7.0 and DO =14.6 mg/l. The unit weight (W_n) is calculated using the relation given in Equation (3).

$$W_n = \frac{K}{S_n} \quad (3)$$

Where K = proportional constant and it is calculated by using the relation given in Equation (4).

$$K = \frac{1}{\sum \left(1/S_{n=1,2,3...} \right)} \quad (4)$$

Methods and Materials

Ratuwa is a small perennial river and serves as the border of eastern Damak. It originates from Siwalik hill and mixes to the Kankai River in Bihar before merging to

Ganga River. The water sample was collected in a one-liter plastic bottle just a few hundred meters away from the Ratuwa Bridge. The sample was collected from the sampling site from January to April of 2018 in an interval of one month by pumping from a depth of 5-10 cm below the surface of the water in order to avoid contamination from the surface of the river basin. It was then brought to the Nepal Batabaraniya Sewa Kendra, Biratnagar for the measurement of all parameters the bottles were rinsed before filling samples, sealed tightly and labeled in the field. Standard procedures for the measurement and their average values with standard deviation are shown in Table 2.

Result and Discussions

pH

The pH is the measure of the hydrogen ion concentration. Acid water tends to be corrosive to plumbing and faucets, particularly, if the pH is below 6. Alkaline water is less corrosive, water with a pH above 8.5 may tend to have a bitter or soda-like taste. The pH of all four months was found to be basic with a minimum of 7.4 in January and a maximum of 7.96 in February. The slight alkalinity may be due to the presence of bicarbonate ions, which are produced by the free combination of CO₂ with water to form carbonic acid, which affects the pH of the water [7]. Carbonic acid (H₂CO₃) dissociates partly to produce (H⁺) and bicarbonate ions.

Color

Color is one of the most important physical parameters of water. The color of the water is influenced by the presence of suspended particles and dissolved particles. Suspended particles are things such as algae, sediments, or small particles of a mineral. Dissolved particles are things such as tannins (a yellowish-brown organic acid that is found in plant tissues), or particles of iron and manganese from rocks or soil. Water that is blue has a very low amount of dissolved particles in it. According to NDWQS guideline, watercolor of 5 Hazen is more desirable but color up to 15 Hazen is acceptable for drinking purposes [8]. The color of Ratuwa River varied from 1 in the month of March to 2.5 in the month of February.

Electrical Conductivity

Electrical conductivity measures the ionic condition of water which is greatly affected by temperature, the concentration of impurities, and mobility of ions [9]. It is directly related to the concentration of salts dissolved in water, and therefore to the Total Dissolved Solids (TDS). Salts dissolve into positively charged ions and negatively charged ions, which conduct electricity. The electrical Conductivity of Ratuwa River varied from a minimum 197 in the month of February and a maximum of 226.5 in the month of January with a mean 208.5 and SD 12.656.

TDS and TSS

TSS is the part of total solids retained by a filter, whereas TDS is the remaining part that passes through the filter. A higher amount of TDS imparts the color, total alkalinity and conducting nature of water whereas TSS causes turbidity in water [10]. Both TDS and TSS, a value greater than 500mg/L is not desirable for drinking purposes. However, the optimum value of 1000mg/L is acceptable according to the NDWQS guideline. The high value of TDS causes gastrointestinal irritation to the human and prolonged use of such water may result in the formation of kidney stones and may cause a heart attack [10]. The higher value of TDS was recorded in the month of January (113.25) and TSS was also higher in January (124). Both TDS and TSS are on the permissible limits according to the NDWQS guideline. Higher values of TDS and TSS may be due to domestic and municipal wastes discharged nearby sampling stations.

Chloride

Chlorine ions are the most essential and dominant anions found in river water. They enter the river water from natural as well as anthropogenic activities [11]. Chlorine is found in the combined state in the form of soluble salts like magnesium chloride, calcium chloride, and sodium chloride. In our study, chloride ions varied from 3 in April to 8 in January. These values are relatively low in comparison to the NDWQS guideline. It implies that Ratuwa River is less contaminated due to chloride.

Total hardness

Calcium and magnesium dissolved in water are the two most common minerals that make water hard. Total Hardness is an important parameter of water quality whether it is to be used for domestic, industrial or agricultural purposes [12]. Hard water is not a health hazard. In fact, the National Research Council (National Academy of Sciences) states that hard drinking water generally contributes a small amount of total calcium and magnesium human dietary needs. In our study hardness level varied from 63 in April to 130 in February with mean 86.750. According to NDWQS guideline 300 is the standard limit which showed that the water was moderately hard in February. It might be due to the runoff of soil containing those minerals causing hardness and due to discharging of domestic and municipal effluents [13].

Sulphate

Sulphates can be naturally occurring or the result of municipal or industrial discharges. Runoff from fertilized agricultural lands also contributes sulphates to water bodies. The sulphate ions varied from 20 in the month of April and 30 in the month of February. The maximum value of sulphur at February may be due to more use of river water for agricultural purposes since sources of sulphur are runoff water off agricultural fields, which contain relatively large quantities of organic and mineral sulfur compounds. An

excess amount of sulphate causes diarrhea. It provides an objectionable taste at 300-400 mg/L and bitter taste at 500 mg/L [12]. According to NDWQS the standard value for sulphate is 200. So the value of sulphate ions present in Ratuwa River is relatively low compared to a standard one.

Iron

It is one of the most important constituents of blood in humans and other living organisms. Iron is an essential element for human nutrition and metabolism but in excess quantities results in toxic effects like hemochromatosis in tissues [14]. Iron is an essential element for drinking purposes if it is in the permissible range; however, its higher concentration in water is hazardous for health. The amount of iron in Ratuwa River was in the range of 0.36 in the month of February to 0.66 in March. These values are higher than the standard value given by NDWQS which is 0.3. The presence of iron in Ratuwa River might due to the presence of different minerals containing iron.

Total Phosphorous

Under normal water flows, roughly two-thirds of the total phosphorus load to lakes and rivers comes from nonpoint sources such as runoff from pasture and croplands, urban and rural agricultural runoffs. Lakes that appear relatively clear in spring can resemble green soup in late summer due to algae blooms fueled by phosphorus [15]. The level of phosphorous in Ratuwa River was found to be 0.07 in February and less than 0.05 in March. However, there is no recommended value of phosphorous given by NDWQS.

Nitrate

It is generally present in water by the aerobic decay of organic nitrogenous compounds. Nitrogen exists in the environment in many forms and changes forms as it moves through the nitrogen cycle. However, excessive concentrations of nitrate-nitrogen or nitrite-nitrogen in drinking water can be hazardous to health, especially for infants and pregnant women. In our samples, the nitrate was below the certain limit ($<0.05\text{mg/L}$) so that the instrument could not detect it. The result shows that the presence of sources of nitrate such as chemical fertilizer, plant decays, and animal debris is extremely low.

Total Alkalinity

Alkalinity is the capacity of water to resist changes in pH that would make the water more acidic. The value of alkalinity in water provides an idea of natural salts present in water [16]. The maximum value of alkalinity of Ratuwa River was observed to be in February (161.50mg/L) and minimum in January (79.9mg/L) with mean 104.125 and SD 38.425 and concentration of January month was above the desirable limit as prescribed by WHO. The maximum value of alkalinity in February was might be because of the use of limestone that contains calcium carbonate used in the home which runoff into the river water.

Calcium

Calcium occurs in water naturally. Calcium is an important determinant of water hardness. Most calcium in surface waters comes from streams flowing over limestone, dolomite, gypsum and other calcium-containing rocks and minerals. The highest concentration of calcium was observed in the month of February (47.29mg/L) and lowest in April (14.03mg/L) with mean 24.2475mg/L and standard deviation 15.57047mg/L. A higher concentration of calcium in the month of February may be due to the discharge of more industrial effluences and construction materials.

Magnesium

Magnesium is found in large concentrations in both the earth crust and the human body. It is an element essential for chlorophyll growth and acts as a limiting factor for the growth of phytoplankton [4]. The maximum concentration of magnesium was evaluated in March (9.48 mg/L) and minimum in February (2.67 mg/L) with an average of 6.135 mg/L and SD 2.79696. Higher concentration may be due to industrial effluent since they contain magnesium in a higher amount.

Potassium

Potassium is macronutrient essential for plant growth. Though potassium is extensively found in some of the igneous and sedimentary rocks, its concentration in natural waters is usually quite low. This is due to the fact that potassium minerals offer resistance to weathering and dissolution [17]. The highest value of potassium at Ratuwa River was observed to be in January (6 mg/L) and least in February (0.44 mg/L) with mean 3.447 and SD 2.288. A higher value of Potassium in January may be due to rocks, the use of fertilizers, and the increase in polluted water.

Dissolved Oxygen

Dissolved oxygen is the amount of gaseous water by direct absorption from the atmosphere by rapid movement or as a waste product of plant photosynthesis. A low DO (less than 2 mg/L) would indicate poor water quality and thus would have difficulty in sustaining a much sensitive aquatic life [18]. The range of DO in Ratuwa River was observed to be between 2.65-3.67 mg/L with a mean of 2.985 and SD 0.464. A higher value of DO in January may be due to the addition of organic waste such as sewage, the addition of nutrients that change the flow of water and addition of chemicals coming out from hospitals.

Sodium

It is a mineral that is essential for the normal functioning of the human body but its excess increases the risk of hypertension, heart stroke, and heart disease and stomach cancer. Sodium is released naturally through mineral deposits in ground and surface water and seawater spray off roofs used to collect rainwater. The highest value of sodium was in January (6.41mg/L) and lowest in February (0.60 mg/L) with a mean of 4.430 and SD 2.697 but these values were very less in comparison with WHO and NWDQS standards.

Water Quality Index

WQI of Ratuwa River was computed from the average values of physicochemical parameters taken during the first four months of the year. The calculation of the WQI on the basis of these parameters is also shown in Table 2 and the corresponding water quality status is also shown in Table 1. The rating of water quality status shown in Table 1 indicated that the river water is not appropriated for any purpose like drinking, irrigation, industrial purposes and fish culture since WQI values in each month exceeded 100. The main physico-chemical parameter responsible for the maximum value of WQI may be iron since it has exceeded the desirable range as prescribed by WHO and NWDQS. As we compare the results of four-month, it can be clearly seen that month with a lesser value of iron, March has comparatively lower WQI and March which has the highest concentration of iron has maximum WQI values. A higher concentration of iron may be due to weathering of iron, industrial effluent, acid-mine drainage, and sewage. This result reveals that river water needs some treatment before consumption, and it should be protected from the perils of contamination.

Table 1: WQI of different months of Ratuwa River

Months	WQI	Status	Possible Usage
January	165.568	Unfit for drinking	Proper treatment required before use.
February	113.904	Very Poor	Restricted use for irrigation
March	197.437	Unfit for drinking	Proper treatment required before use.
April	187.071	Unfit for drinking	Proper treatment required before use.

Table 2: Evaluation of mean and standard deviation

Parameters	January	February	March	April	Mean	Standard Deviation	Method
Color	1.5	2.5	1	1.5	1.625	0.629	APHA-2120C
EC	226.5	197	203.6	207.8	208.725	12.656	APHA-2510
TDS	113.25	98.5	101.8	103.9	104.362	6.328	APHA-2540C
TSS	124	20	16	4	41	55.749	APHA-2540 D
Chloride	8	4	4	3	4.75	2.217	APHA-2500B
Sulphate	23	30	21	20	23.5	4.509	APHA-4500 SO ₄ ²⁻ C
Iron	0.55	0.36	0.66	0.62	0.547	0.133	APHA-3111B
Nitrate	<0.05	<.05	<.05	<.05	--	--	APHA-4500
Total Phosphorus	0.06	0.07	<.05	0.06	0.063	0.005	APHA-4500
Total Hardness	75	130	79	63	86.75	29.624	APHA-2340
Total Alkalinity	79.9	161.5	86.7	88.4	104.125	38.425	APHA-2320
Calcium	20.04	47.29	15.63	14.03	24.247	15.570	APHA-3500
Magnesium	5.83	2.67	9.48	6.56	6.135	2.796	APHA-3500
Potassium	6	0.44	3.53	3.82	3.447	2.288	APHA-3500
DO	3.67	2.86	2.65	2.76	2.985	0.464	APHA-4500
pH	7.4	7.96	7.56	7.89	7.702	0.266	APHA-4500 H+
Sodium	6.41	0.6	4.48	6.23	4.43	2.697	APHA-3500

Fig 1 Bar Diagram of Average Value of Different Physico-chemical Parameters along with Error Bar

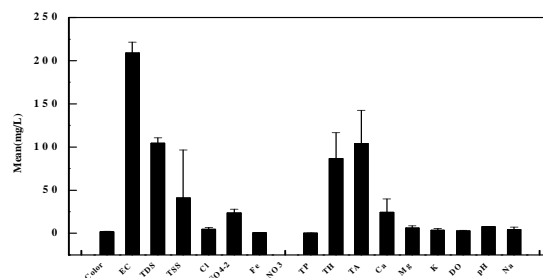


Table 3: Determination of WQI of January Month

S. N	Parameters	Observed values V_n	Standard values S_n	Unit weight W_n	Quality rating q_n	$q_n \times W_n$
1	Color	1.5	5	Unit weight W_n	Quality rating q_n	$q_n \times W_n$
2	EC	226.5	300	0.05152	30	1.5456
3	TDS	113.25	500	8.58667E-4	75.5	0.06483
4	TSS	124	500	5.152E-4	22.65	0.01167
5	Chloride	8	250	5.152E-4	24.8	0.01278
6	Sulphate	23	200	0.00103	3.2	0.0033
7	Iron	0.55	0.3	0.00129	11.5	0.01481
8	Nitrate	<0.05	45	0.85867	183.33333	157.42222
9	Total Phosphorus	0.06	No limit listed	--	--	--
10	Total Hardness	75	300	--	--	--
11	Total Alkalinity	79.9	200	8.58667E-4	25	0.02147
12	Calcium	20.04	75	0.00129	39.95	0.05146
13	Magnesium	5.83	50	0.00343	26.72	0.09177
14	Potassium	6	No listed limit	0.00515	11.66	0.06007
15	DO	3.67	6	--	--	--
16	pH	7.4	8.5	0.04293	127.09302	5.45653
17	Sodium	6.41	200	0.03031	26.66667	0.80816
				0.00129	3.205	0.00413
			WQI= 165.625	$\sum W_n = 0.999$		$\sum q_n W_n = 165.568$

Table 4: Determination of WQI of February Month

Parameters	Observed values (V_n)	Standard values (S_n)	Unit weight (W_n)	Quality rating (q_n)	$q_n \times W_n$
Color	2.5	5	0.05152	50	2.576
EC	197	300	8.58667E-4	65.66667	0.05639
TDS	98.5	500	5.152E-4	19.7	0.01015

TSS	20	500	5.152E-4	4	0.00206
Chloride	4	250	0.00103	1.6	0.00165
Sulphate	30	200	0.00129	15	0.01932
Iron	0.36	0.3	0.85867	120	103.04
Nitrate	<.05	45	--	--	--
Total Phosphorus	0.07	No limit listed	--	--	--
Total Hardness	130	300	8.58667E-4	43.33333	0.03721
Total Alkalinity	161.5	200	0.00129	80.75	0.10401
Calcium	47.29	75	0.00343	63.05333	0.21657
Magnesium	2.67	50	0.00515	5.34	0.02751
Potassium	0.44	No listed limit	--	--	--
DO	2.86	6	0.04293	136.51163	5.8609
pH	7.96	8.5	0.03031	64	1.93958
Sodium	0.6	200	0.00129	0.3	3.864E-4
			$\sum W_n$ = 0.999		$\sum q_n W_n = 1$ 13.891
					WQI=113.904

Table 5: Determination of WQI of March Month

Parameters	Observed values V_n	Standard values S_n	Unit weight W_n	Quality rating q_n	$q_n \times W_n$
color	1	5	0.051	20	1.0304
EC	203.6	300	8.586E-4	67.86667	0.05827
TDS	101.8	500	5.152E-4	20.36	0.01049
TSS	16	500	5.152E-4	3.2	0.00165
Chloride	4	250	0.001	1.6	0.00165
Sulphate	21	200	0.001	10.5	0.01352
Iron	0.66	0.3	0.858	220	188.90667
Nitrate	<.05	--	--	--	--
Total Phosphorus	<.05	No limit listed	--	--	--
Total Hardness	79	300	8.586E-4	26.33333	0.02261
Total Alkalinity	86.7	200	0.001	43.35	0.05583
Calcium	15.63	75	0.003	20.84	0.07158
Magnesium	9.48	50	0.005	18.96	0.09768
Potassium	3.53	No listed limit	--	--	--
DO	2.65	6	0.042	138.95349	5.96574
pH	7.56	8.5	0.030	37.33333	1.13142
Sodium	4.48	200	0.001	2.24	0.00289
			0.999		$\sum q_n W_n = 1$ 97.3704
			WQI=197.437		

Table 6: Determination of WQI of April Month

Parameters	Observed values V_n	Standard values S_n	Unit weight W_n	Quality rating q_n	$q_n \times W_n$
Color	1.5	5	0.05152	30	1.5456
EC	207.8	300	8.58667E-4	69.26667	0.05948
TDS	103.9	500	5.152E-4	20.78	0.01071
TSS	4	500	5.152E-4	0.8	4.1216E-4
Chloride	3	250	0.00103	1.2	0.00124
Sulphate	20	200	0.00129	10	0.01288
Iron	0.62	0.3	0.85867	206.666	177.457
Nitrate	<.05	--	--	--	--
Total Phosphorus	0.06	No limit listed	--	--	--
Total Hardness	63	300	8.58667E-4	21	0.01803
Total Alkalinity	88.4	200	0.00129	44.2	0.05693
Calcium	14.03	75	0.00343	18.70667	0.06425
Magnesium	6.56	50	0.00515	13.12	0.06759
Potassium	3.82	No listed limit	--	--	--
DO	2.76	6	0.04293	137.67442	5.91082
pH	7.89	8.5	0.03031	59.33333	1.79815
Sodium	6.23	200	0.00129	3.115	0.00401
			--		--
			$\sum W_n = 0.99966$		$\sum q_n W_n = 187.00788$
			WQI=187.0714		

Conclusions

Analysis of seventeen different physicochemical parameters was carried out and they were compared with Nepal and WHO standards. Color, EC, TDS, TSS, Chloride, Sulphate, Iron, TH, Nitrate, Phosphorus, DO, Calcium, Magnesium, Potassium, and Sodium were within the desirable range while comparing with standard values but iron exceeded the desirable limit (0.3mg/L) in all four months. WQI for January, February, March, and April were determined to be 165.625, 113.903, 197.437 and 187.071. Since all values were determined to be greater than 100, it indicated that Ratuwa River is unsuitable for drinking and various other purposes. Iron may be one of the major factors responsible for the higher value of WQI since it exceeded the desirable range.

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‘ऋतुविचार’ खण्डकाव्यमा वेदान्त विचार

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लेखसार

लेखनाथ पौड्यालद्वारा लेखिएको ‘ऋतुविचार’ मूलतः प्रकृतिचक्रमा देखिने विभिन्न प्राकृतिक छटाहरूको सौन्दर्य वर्णनमा केन्द्रित छ तथापि यसमा चराचर जगत् र यसको नियन्त्रारूप ब्रह्म तत्त्व, जीवरूप प्राणीका जन्म, मृत्यु एवं मोक्षको अवस्थालाई वेदान्तीय वैचारिक पृष्ठभूमिमा प्रस्तुत गरिएको छ । जीवको चित् रूप ज्ञान स्वरूप भएको तर अविद्याका कारण भवचक्रमा ऋतुचक्र भैं निरन्तर घुमिरहेको विचार व्यक्त गर्दै एक दिन आफ्नै स्वरूप पहिचान गरी मानव भवबन्धनबाट मोक्षको मार्ग पहिल्याउन सक्ने विचार प्रकट भएको छ । यही वैचारिक निष्कर्ष निकाल्ने मुख्य ध्येय रहेको यस लेखमा वर्णनात्मक विधि अवलम्बन गरी व्याख्या, विश्लेषणद्वारा वेदान्त दर्शनको विभिन्न साक्षद्वारा परीक्षण गरिएको छ ।

शब्दकुञ्जी : ब्रह्म, जीव, माया, बन्धन, मोक्ष, चित्, विद्या, अविद्या ।

लेखनाथ पौड्याल (१९४२-२०२२) नेपाली कविता परम्परामा आधुनिक युगसन्धिका कवि मानिन्छन् । वीरधारा, भक्तिधारा हुँदै शृङ्गारधारामा प्रवाहित भइरहेको नेपाली कवितालाई सामाजिक चेतनातर्फ अभिमुख गर्दै पूर्वीय दार्शनिक चिन्तनका आधारमा विचार तथा भावको उदात्तीकरण गरेर परिष्कार गर्नु पौड्यालको अवदान मानिन्छ । माध्यमिककालीन शृङ्गारधारालाई परिवर्तित समाजको बहुमुखी आकाङ्क्षाधारमा परिवर्तन गर्न र धार्मिक, सांस्कृतिक दृष्टिले पुनर्जागृत हुन खोजेको नेपाली समाजलाई सर्वतोमुखी जागरण ल्याउन लेखनाथ पौड्यालले विशेष भूमिका खेलेका छन् । वि.सं. १९७३ मा प्रकाशित ऋतुविचार र परिवर्तित, परिमार्जित ऋतुविचार (वि.सं. १९९२) समाजलाई जागरणतर्फ अभिप्रेरित गर्ने पहिलो खण्डकाव्यका रूपमा देखिन्छ । जसका माध्यमबाट पौड्यालले प्रकृति, मानव र ईश्वरको त्रैविध्य प्रवाहमा जीवन धारा सतत प्रवाहित भएको दार्शनिक विमर्श प्रस्तुत गरेका छन् । प्रकृतिलाई आलम्बन बनाएर लेखिएको यस खण्डकाव्यमा प्रकृति मानव, प्राणी, राष्ट्र, इतिहास, धर्म, संस्कृति, मनोविज्ञान, पुराण, नीति, अध्यात्म, भोग, योग जस्ता बहुविध पक्षका साथै यिनलाई चेतनाको ज्योति वा ऊर्जा प्रदान गर्ने ब्रह्म स्वरूपको सुन्दर एवं समन्वयात्मक निरूपण भएको छ । यसका निम्ति कवि लेखनाथ वेदान्त दर्शनबाट अनुगृहीत भएका देखिन्छन् । वेदान्त दर्शन भारतीय उपमहाद्वीपमा समाजलाई सामञ्जस्यपूर्ण सभ्यतातर्फ अभिमुख गर्ने महत्त्वपूर्ण ज्ञानधारा हो । कर्म, उपासना र ज्ञानको समन्वय खोज्ने वेदान्त दर्शनले व्यष्टि जीवनका आकाङ्क्षादेखि समष्टिरूप ब्रह्मचेतमा व्यष्टिलाई जोड्दै चेतनाको ऊर्ध्व एवं क्षितिजीय गतिलाई व्यापकता प्रदान गर्ने कार्य गरेको छ । यहाँ वेदान्त दर्शनले स्थापित गरेका ब्रह्म, जीव, जीवको कर्म, प्रकृति, ज्ञान, मोक्ष आदि चिन्तनका पृष्ठभूमिमा ऋतुविचार खण्डकाव्यको वैचारिक पक्षको विश्लेषण गरिएको छ । यसका निम्ति ‘ऋतुविचार’ खण्डकाव्यको मुख्य वैचारिक स्रोतका रूपमा वेदान्त दर्शनका कुन कुन पक्षको प्रभाव रहेको छ भन्ने जिज्ञासा नै समस्याका रूपमा रहेको छ भने त्यसको पहिचान गरी विवेच्य कृतिको वैचारिक पक्षको विश्लेषण गर्नु मुख्य उद्देश्य रहेको छ ।

* लेखक गड्तौला नेपाली शिक्षण विभाग त्रि.वि. कीर्तिपुरमा सहप्राध्यापक पदमा अध्यापनरत हुनुहुन्छ ।

चित्, अचित् र ईश्वरतत्त्व

वेदान्त दर्शनले मूलतः चित्, अचित् र ईश्वर तीन तत्त्व स्विकारेको छ । समग्र जडजङ्गमरूप ब्रह्माण्डमा चेतनतत्त्वका रूपमा सुरमुनिदेखि कीटपतङ्ग एवं स्थावर वनस्पतिसम्मका जीवलाई समेटिएको छ । यसैगरी अचित् तत्त्वका रूपमा चेतन इतर जडवस्तु अर्थात् पञ्चमहाभूतबाट निर्मित वस्तुजगत्लाई समेटिएको छ । चित् र अचित्को नियामक तत्त्वका रूपमा ईश्वर तत्त्व मानिएको छ । ईश्वरलाई ब्रह्म, भगवान्, परमात्मा आदि अनेक नामले चिन्न सकिने कुरा भागवत् (१/२/११) मा उल्लेख छ । उपनिषद्हरू ईश्वरलाई ब्रह्म शब्दद्वारा व्याख्या गर्दछन् । “सर्वं खल्विदं ब्रह्म” अर्थात् यो सारा जगत् नै ब्रह्म हो । उपनिषद्को यस भनाइमा दृश्य जगत्को परं नियन्ता ब्रह्म भएकाले यो सबै ब्रह्म नै हो । यसैलाई मुण्डकोपनिषदले रूपकात्मक शैलीमा प्रस्तुत गरेको छ । जस्तो :

अग्निर्मूर्धा चक्षुषी चन्द्रसूर्यौ दिशः श्रोत्रे वाग्विवृताश्च वेदाः ।

वायुः प्राणो हृदयं विश्वमस्य पद्भ्यां पृथिवी हृयेषः सर्वभूतान्तरात्मा

(मुण्डक, द्वि.मु., १/४)

जसको अग्नि शिर हो, चन्द्रसूर्य आँखा हुन्, दिशा कान हुन्, वेदहरू वाणी हुन्, वायु प्राण हो, विश्व हृदय, पृथिवी पाउ हो, यस्तो ब्रह्म सबै प्राणीहरूको अन्तरात्मा हो । यसले ब्रह्मको सत् पक्षको वर्णन गरेको छ । ब्रह्मका सत् र चित् दुवै आयाममा सम्पूर्ण दृश्य जगत् सत् रूप हो, यही यथार्थ सत्ता हो । यसलाई प्रकृति तत्त्व, जडतत्त्व, माया तत्त्व, अविद्या, अध्यास जस्ता नामबाट पनि चिनाउने प्रयास गरिएको छ । “मायां तु प्रकृतिं विद्यात् मायिनं तु महेश्वरम्” (श्वेताश्वतरोपनिषद्, ४/१०) माया प्रकृति हो भने मायी महेश्वर हो । यसलाई साङ्ख्य दर्शनले प्रकृति मानेको छ । यही प्रकृतिबाट नै स्थूल दृश्यप्रपञ्च र सूक्ष्म शरीरसमेत विस्तार हुने कुरा साङ्ख्यले वर्णन गरेको छ । जस्तो : “सत्त्वरजस्तमसां साम्यावस्था प्रकृतिः प्रकृतेर्महान्...” (साङ्ख्यसूत्र, १/६१) सत्त्व, रज र तम गुणको साम्य अवस्थाको नाम नै प्रकृति हो र यसैबाट महत्, अहङ्कार, मन, पञ्चतन्मात्रा, इन्द्रिय आदि उत्पन्न हुन्छन् । यस स्थूल तथा सूक्ष्म प्रकृतिबाट चित् तत्त्व भिन्न भएको कुरा साङ्ख्य, वेदान्त आदि दर्शनले स्विकारेका छन् । चित् तत्त्व ब्रह्मको चेतन अंश हो । शङ्कराचार्य जडरूप जगत्लाई ब्रह्मको विवर्त वा अध्यास ठानेर पारमार्थिक सत्यका रूपमा एकमात्र ब्रह्म (ब्रह्मसत्यं जगन्मिथ्या जीवो ब्रह्मैव नापरः) लाई स्विकार्दछन् । रामानुज ईश्वरको चिदचित्त्विशिष्ट रूप स्विकाउँ प्रपञ्चरूप जगत्लाई ब्रह्मको सत् रूप ठान्दछन् (श्रीनिवासाचार्य, २०३३:२) । आंशिक मतभिन्नता भए पनि जगत् नानारूप, नानानाम, नातारङ्ग, अनेक गुणले युक्त भएको र यसको सारमा एकरूप, एकरस, अनन्त ज्योतिरतत्त्व भएको विचार सबै वेदान्तीहरूको रहेको छ ।

ऋतुविचारमा नानारूप प्रकृति

‘ऋतुविचार’ प्रकृतिकाव्य हो र यसको प्रकृति वेदान्त दर्शनले निरूपण गरेको प्रकृतिदर्शनबाट नै प्रेरित देखिन्छ । जस्तो :

सारा वन बगैँचामा सजाएको छ आसन

ऋतुराज उतैबाट गर्छ त्यो शुभशासन

दिव्य आनन्दको रङ्ग दिव्य कान्ति तरङ्ग छ

दिव्य उन्नतिको ढङ्ग दिव्य सारा प्रसङ्ग छ
 त्यो दिव्य रङ्ग पाएका लता वृक्ष वनस्पति
 देखिन्छन् योग्य नेताका रैती भैं उन्नताकृति
 सानातिना सबैमाथि फैलिएको छ गौरव
 योग्यको आड पाएको बिग्ला को कहाँ कब

(वसन्तविचार, १२-१५)

यहाँ प्रकृतिको नानाविध रूपाकृतिस्वरूप बगैँचामा दिव्यशासन गर्ने एउटै तत्त्व भएको विचार व्यक्त गर्दै कवि पौड्याल पहिलो पद्यमा प्रकृति ब्रह्मको दिव्य छटा भएको स्विकार्दछन् । सम्पूर्ण प्राकृतिक पर्यावरणको मालिक (राजा) ले नै आफ्ना अंशरूप प्राकृतिक छटाहरूमा आसन जमाएको वा अन्तर्यामी रूप विभूता व्यक्त भएको विचार यहाँ व्यञ्जित भएको छ । दोस्रो पद्यमा प्रकृतिका सबै पक्षमा दिव्यत्वको सन्धान गर्ने लेखनाधीन विचार वेदान्तकै ब्रह्मपरिणामी चिन्तनबाट उत्प्रेरित देखिन्छ । 'ततो विराडजायत' (शुक्लयजुर्वेद, ३१/४) अर्थात् त्यही आदि विराट् पुरुष नै भोक्ता भोग्यरूमा द्विधा विभक्त भएको भन्ने वैदिक चिन्तनकै चिरन्तन चिन्तनलाई आत्मसात गर्दै प्रकृतिका हरेक दृश्यमा दिव्यत्वको अनुभूति गर्ने लेखनाथ प्रकृति र मानवको शाश्वत तादात्म्य खोज्दछन् । योग्य नेताको नेतृत्वमा रहेका रैती वा प्रजाको बिम्बबाट प्रकृतिको स्वामी ईश्वरको अंशले प्रकृति गौरवमय बनेको वेदान्तीय विचार यहाँ प्रकट भएको छ ।

भ्रम वा मृगतृष्णा रूप प्रकृति

वेदान्त दर्शनले ब्रह्माण्ड वा यस स्थूलसूक्ष्मरूप उभयात्मक प्रकृतिलाई माया, भ्रम, अध्यास आदि रूपमा पनि लिइएको छ । संसार ऐहलौकिक रूप हो जुन क्षणिक, परिणामी वा दुःखात्मक छ । यो भ्रमात्मक जगत् एउटा मृगतृष्णा हो । यहाँ देखिने सुख भनेको आभासमात्र हो । यसलाई पौड्यालले प्रकृतिका विभिन्न छटाको वर्णनका माध्यमबाट व्यञ्जित गरेका छन् । जस्तो :

देखिन्छ उनमा तातो बलौटे अब केवल
 विरसी मूर्खको क्रूर चित्त भैं धर्मसङ्कुल
 बालुवा टेकनासाथ पैतालाकन पोल्दछ
 पादप्रहारको मानू जवाफै स्पष्ट बोल्दछ
 टाढा टिलपिलाएको जलजस्तै मनोहर
 मसिना बालुवामाथि झल्कन्छन् सूर्यका कर
 विशाल मृगतृष्णा त्यो झल्कँदा दूर चम्चम
 देखिने व्यक्तिमा पर्छ बडो आश्चर्यको भ्रम
 कुनै त्यो मृगतृष्णामा चाँदीको भाव धर्दछ
 पानीका भानले कोही दौडँदै अगि सर्दछ

(गृष्मऋतु, १८-२२)

यी उद्धृतांशमा संसारलाई बालुवा र मृगतृष्णाका माध्यमबाट अध्यास भएको विचार व्यक्त भएको छ । जसरी उष्ण बालुवामा हिँड्न सकिँदैन वा बालुवा निस्सार हुन्छ त्यस्तै संसार यात्राका निम्ति कठोर र सारहीन भएको कुरा यहाँ प्रकट भएको छ । संसारमा देखिने सुख

केवल मृगतृष्णामात्र हो । क्षितिजमा टल्किने बालुवामा पानीको भ्रम र सिपी (शङ्खे किराको खोल) मा चाँदीको भ्रम भए जस्तै जीवनमा यदाकदा लाग्ने सुख पनि त्यस्तै हो । यहाँ पानीजस्तो शीतल र चाँदीजस्तो शुभ्रपन कतै छैन भन्ने निस्सारतावादी चिन्तन प्रकट भएको छ । यस प्रकारको मृगतृष्णामा दैडिनु मूर्खता हो, त्यसैले ज्ञानवान् वा विद्यावान् व्यक्तिले यस प्राकृतिक सौन्दर्य र नानारूपमा अल्भिनु हुँदैन भन्ने कुरा ऋतुविचारमा यत्रतत्र प्रकट भएको छ । प्रकृति एउटा छल प्रपञ्च हो भन्ने विवर्तवादी अद्वैत वेदान्त दर्शनका वैचारिकतामा नै यहाँ मृगमरीचिरूप प्रकृतिको चित्रण भएको छ ।

चित् र ईश्वर तत्त्व

‘ऋतुविचार’ खण्डकाव्यको उपमेयरूप प्रकृतिको स्रष्टा, द्रष्टा, भोक्ता आदिका रूपमा चिद्रूप जीव र प्रकृति तथा भोका जीव दुवैको शास्ता ईश्वरलाई मानिएको छ । संसारमा देखिने चेतनतत्त्व भनेको जीव वा आत्मा हो, यही आत्मतत्त्व नै जीवित तत्त्वका रूपमा सबैतिर व्याप्त छ । जस्तो :

हजारौं मुख भै निस्के लतावृक्षादि हालमा
लयावस्था बिताएका जीव भैं सृष्टि कालमा
आँकुरा, पिपिरा, साना, काइना, चिउला टुसा
निस्के भ्रपक्क सर्वत्र साह्रै कलकलाउँदा

(वसन्तविचार, १७-१८)

प्रलयपछि हुने सृष्टिमा जीव र प्रकृति दुई भिन्न तत्त्वको भूमिका रहेको देखिन्छ । लयावस्थामा पनि जीव वा चेतनतत्त्व सुषुप्त रूपमा रहेकै हुन्छ र त्यही अविनाशी तत्त्व नै पुनः प्रकृतिका छटामा देखिन्छ । आँकुरा, काइना, टुसादेखि तहतहका प्राणीमा व्याप्त जीव एउटै हो र त्यो ज्योतिरूप चेतनाले जडजडगमरूप प्रकृतिलाई चेतनाको ज्योति छर्ने हो भन्ने वेदान्ती विचार यहाँ प्रकट हुन पुगेको छ । जस्तो :

कर्मसंस्कारले भिन्नभिन्न रूप, आकृति, वासना आदिमा विभक्त भए पनि लतावृक्ष, प्राणी आदिमा व्याप्त तत्त्व एउटै आत्मा हो । आत्मचैतन्यकै ज्योति सबैमा भासमान भएकाले ती जीवित छन् ।

प्रकृतिका दिव्य छटामा आत्मज्योति व्याप्त गर्ने मूल तत्त्व ईश्वर वा विद्याता भएको कुरा लेखनाथले सकारेका छन् । कार्यरूप जगत्को वैविध्यमा पनि एउटै कारणको भूमिका रहेको कुरा विभिन्न साक्ष्यबाट बुझ्न सकिन्छ । जस्तो :

बेगिन्ती पुष्पका भेद बेगिन्ती रूप वासना
एकै प्रवाहमा चल्लुन् धन्य हो विधि कल्पना

(वसन्तविचार, ३१)

लिई सौन्दर्य माधुर्य सौकुमार्य थपी वहाँ
पुष्पको सिर्जना गर्ने विद्याता धन्य हो अहो

(वसन्तविचार, ३७)

संसारको प्रवाह एउटै ईश्वरबाट भएको छ । संसारमा नानारूप र नानाकर्मका जीवलाई सृष्टिप्रवाहमा प्रवाहित गर्ने शास्ता, नियन्ता वा व्यवस्थापकको भूमिकामा विधि, विद्याता वा ईश्वर भएको वेदान्तीय चिन्तनले यहाँ प्रभाव पारेको देखिन्छ ।

यसरी हेर्दा चिदचित् र ईश्वरको तत्त्वत्रयात्मक रूप ब्रह्माण्ड वा प्रकृतिको स्थूल एवं सूक्ष्म दुवै रूप निरीक्षण गरेर यसको सांस्कृतिक एवं दार्शनिक विचारलाई लेखनाथले आफ्नो काव्यको स्रोत मानेको देखिन्छ ।

विद्या, अविद्या, बन्धन र मोक्ष

वेदान्त दर्शनले समाजको विकासमा विद्या अर्थात् ज्ञानको महत्त्वलाई सर्वोपरि स्थान दिएको छ । अविद्यालाई बन्धनको कारण र मोक्षको बाधक तत्त्व मानिएको छ भने विद्यालाई अमरत्व प्रदान गर्ने तत्त्व मानिएको छ । जस्तो :

विद्यां चाविद्यां च यस्तद्वेदोभयं सह ।

अविद्यया मृत्युं तीर्त्वा विद्ययामृतमश्नुते ॥

(ईशावास्योपनिषद्, ११)

जसले विद्या र अविद्या दुवैलाई एकैसाथ जान्दछ भने उसले अविद्याको बोधले मृत्युलाई जित्छ र विद्याबाट अमृततत्त्व प्राप्त गर्दछ । गीतामा पनि 'न हि ज्ञानेन सदृशं' (....) भनेर ज्ञानलाई पवित्र वस्तु मानिएको छ । वास्तवमा चित्ततत्त्व नै ज्ञानको अपरपर्याय हो । त्यसैले वैयाकरण पाणिनिले 'चिति संज्ञाने' धातुपाठ (.....) संज्ञानकै अर्थमा चित् धातु रहेको बताएका छन् । चेतनेतर जगत् ज्ञेय वस्तुका रूपमा रहेको र चेतन स्वयं ज्ञाता रहेको कुरा वेदान्त दर्शनका अनेक व्याख्याताहरूले बताएका छन् । जब जीवले अविद्यालाई बुझेर विद्याका माध्यमबाट आफ्नो स्वरूप पहिचान गर्दछ अनि मोक्ष प्राप्त गर्दछ भन्ने वेदान्तीय विचारले लेखनाथ पौड्याललाई पनि प्रभाव पारेको देखिन्छ । जस्तो :

पर्दा वसन्तको दिव्य प्रभाव पृथिवी सब

विवेक ज्योतिले शुद्ध विद्यातुल्य बनिन् अब

(वसन्तविचार, १६)

यसमा प्राकरणिक विषय वसन्तको दिव्य प्रभावयुक्त पृथिवीको सौन्दर्य रहेको छ । यसलाई अतिरेक सौन्दर्यरूप वर्णन गर्नका निम्ति वेदान्त दर्शनले प्रतिपादन गरेको विद्यालाई अप्राकरणिक विषयका रूपमा प्रस्तुत गरिएको छ । वासन्तिक सुषमा र विवेक ज्योतिले आलोकित विद्याको उपमाले कवि पौड्याल समाजको सौन्दर्य ज्ञानद्वारा नै हुने विचार व्यञ्जित गर्दछन् । वासन्तिक छटाले धर्तीलाई उजिल्याए भैं विवेकज्योतिले मानव वा समाजलाई उज्यालो बनाउने विचार वेदान्तदर्शनबाट प्रेरित देखिन्छ । प्रज्ञावान् समाजको चाहना गर्ने पौड्याल आधुनिक नेपाली समाजमा अविद्याको विनाश र विद्याको उदय भएको हेर्न चाहन्छन् । भरीको दिन र अविद्या वा अज्ञानलाई एकै प्रकारको मानेर अविद्या अन्धकारको प्रतीक मानिएको छ । जस्तो :

भरीले छोपिराखेका वर्षाका दिन छन् सब

अविद्याले अँठ्याएका जीवतुल्य गतप्रभ

(वर्षाविचार, ३८)

यहाँ कविको अभीष्ट वर्ण्य विषय वर्षाका दिन हुन् भने तिनलाई अविद्याग्रस्त जीवसँग उपमित गरिएको छ । हुस्सु, बादल, तुवाँलो जस्ता सूर्यकिरणका अवरोधक तत्त्वले उज्यालो छेकेजस्तै सांसारिक वासना, माया वा अविद्याले ढाकेका जीव पनि मुक्तिको प्रदीप्त ज्योतिबाट वञ्चित हुन्छन् । स्वस्वरूप पहिचान गर्न नसकेका वासनाबद्ध जीव आफ्नो मुमुक्षुरूप पहिचान

गर्न सत्तैनन् । त्यसैले असारे दिन भैं अँध्यारा देखिन्छन् । यहाँ मूलतः असारे दिनको वर्णन भए पनि अप्राकरणिक रूप उपमानद्वारा समाजको अज्ञानता व्यञ्जित हुन पुगेको छ ।

अविद्या नै विकासको बाधक हो र विद्याद्वारा नै सर्वाङ्गीण विकास हुने कुरामा पौड्याल सचेत देखिन्छन् । आधुनिक युग ज्ञान वा विद्याको युग हो भन्ने कुरा पनि उनले प्रकृतिकै उपमेयत्वबाट स्पष्ट गरेका छन् । जस्तो :

निस्के घनघटा फोरी देखाई भरिलो छवि

अविद्या जाल तोडेको इलमी राष्ट्रभैं रवि

(शरद्विचार, २)

वर्षाकालीन घनघटा (बादल) छिचोलेर सूर्योदय भएभैं अज्ञानबाट मुक्त देश विकासको उज्यालोमा पुगेको विचार प्रकट भएको छ । विकासको आधार ज्ञान हो भन्ने चिन्तनलाई पुरस्कृत गर्ने प्रस्तुत पद्य अज्ञान वा असभ्यताबाट मानवलाई उच्च सभ्यता वा मुक्तितर्फ डोर्‍याउने 'विद्या-ऋते ज्ञानान्मुक्ति' भन्ने औपनिषदिक विचारबाट नै उत्प्रेरित देखिन्छ ।

अविद्या नै बन्धनको कारण हो र विद्या नै मुक्तिको कारण हो भन्ने वेदान्तदर्शनका गहन विचारलाई ऋतुविचारका विभिन्न ठाउँमा देख्न सकिन्छ । जस्तो :

पक्षी कठै ! पखेटाको तुषारो टकटक्याउन

चाहन्छन् काठिँएका छन् सत्तैनन् फट्फटाउन

(हेमन्तविचार, ४५)

यसमा तुषाराले जकडिएका पक्षीको कारुणिक अवस्था वर्णन विषय भए पनि यसको अप्रस्तुत अभिव्यञ्जनामा बन्धनमा परेका जीवको वासनाबन्धन सङ्केतित छ । सुकृत कर्मद्वारा जन्मजन्मान्तरका वासना फ्याँक्न खोजे पनि जीव पखेटामा टाँसिएका तुषारो भैं मुक्तिको उडानमा बाधक बनेको संस्काररूप तुषारो फ्याँक्न असमर्थ बनेको विचार प्रकट भएको छ ।

मानवको मुक्ति भनेको आफ्नै अविद्या, संस्कार, सामाजिक बन्धन आदिबाट नै हो । जब मानिस बाहिरी परिवेशसँगै आफ्नै रागादि अन्तरपरिवेशबाट आफूलाई मुक्त गर्न सत्तैन तबसम्म ऊ आफ्नो स्वरूपको अनुभूति गर्न सत्तैन । यस किसिमको चिन्तनलाई पनि कवि पौड्यालले यस काव्यमा प्रस्तुत गरेका छन् । जस्तो :

रूप रङ्गादिले शून्य सत्त्वशेष कुनै धन

जीवन्मुक्तसरी थाले हावामफिक खेलन

(शरद्विचार, ८)

संसारका नाना रूप, रङ्ग आदिको रागबाट अलग भएको निस्पृह मुक्तपुरुष नै स्वतन्त्र हो । यस किसिमको स्वतन्त्रता मानिस स्वयंले सत्त्वसम्पन्न गुणबाट आर्जन गर्दछ भन्ने मान्यता यहाँ प्रकट भएको छ । मुक्त वा स्वतन्त्र व्यक्ति हावा भैं यत्रतत्र घुमफिर गर्न सक्षम हुन्छ । यही स्वतन्त्रता नै मानव प्राप्ति हो र यही नै मोक्ष हो भन्ने अधुनातन चिन्तन यहाँ प्रकट भएको छ ।

वेदान्त विचारको सान्दर्भिकता

लेखनाथ पौड्यालको समयमा नेपाली समाज अझ समग्र हिन्दु संस्कृतिमा नै एक प्रकारको विचलन आइरहेको देखिन्छ । आधुनिक शिक्षा र त्यसले निम्त्याएको पश्चिमी सभ्यताको नाममा पूर्वीय संस्कार, संस्कृति एवं आस्थामा प्रहार हुँदै गएको कवि पौड्यालले यस किसिमको

परिस्थिति दर्साउन तथा पूर्वीय दर्शनको महिमा गायन गर्न वेदान्त विचारलाई अभिव्यञ्जन गरेका हुन् । दर्शनका गूढतम स्थापना र त्यसले पूर्वीय जनमानसमा प्राप्त गरेको आस्थालाई कलात्मक उद्वेक्षणका निम्ति उपमेय-उपमान, प्रस्तुत-अप्रस्तुत, प्राकरणिक-अप्राकरणिक, बिम्ब-प्रतिबिम्ब, व्यङ्ग्य-व्यञ्जक, अलङ्कार-अलङ्कार्य जस्ता अनेक कलात्मक युक्ति उपयोग गरिएको छ । कलाको आवरणमा आएको र बहुधा उपमानका रूपमा प्रस्तुत समाजले प्रकृतिका स्वभावलाई प्रकाशित गर्ने ध्येय प्रतीत भए पनि मूलतः अप्रस्तुत व्यञ्जना सामर्थ्य नै प्रभावकारी देखिन्छ । वाच्यवाचकको तिरोभवनमा भन्दा सहकार्य वा सहभावमा नै कवित्व प्रकट गर्ने पौड्यालले यस कृतिमा वेदान्त दर्शनका विचारलाई सामाजिक उत्थानका निम्ति उपयोग गरेका छन् । वेदान्त दर्शन पूर्वीय सभ्यताको वैचारिक आधारशिला भएकाले र यसमा सर्वसम्बन्धवादी दृष्टिका साथै समतामूलक चिन्तन पाइने हुँदा कवि पौड्यालले नेपाली समाजलाई पतनबाट उन्नतितर्फ प्रेरित गर्न यसको उपयोग गरेको देखिन्छ । सबै प्राणीमा व्याप्त तत्त्वका आधारमा मानवमात्र नभएर चराचर जगत्मै एकत्व भाव जागृत गर्न प्रेरणा दिने वेदान्त दर्शनको वैचारिक पृष्ठभूमि विवेच्य काव्यमा उपयोग हुनु सान्दर्भिक देखिन्छ ।

निष्कर्ष

लेखनाथ पौड्यालले आफ्नो काव्ययात्राको प्रथम थालनीका रूपमा लेखेको ऋतुविचार कोषकाव्यात्मक ढाँचा अवलम्बन गर्ने खण्डकाव्यका रूपमा रहेको छ । यसमा वर्षचक्रका रूपमा देखिने षड्ऋतुलाई विषय बनाइएको छ तथापि यो समग्र भवचक्रलाई व्यञ्जित गर्ने काव्य हो । निरन्तर परिवर्तनशील संसारको स्वरूप, यसमा आवागमन गर्ने जीव, संसार र चेतनाको नियामक ईश्वर वा ब्रह्म, चेतन सत्ताको स्वस्वरूप बोध हुन नदिने अविद्या र अविद्याकै कारण हुने बन्धन जस्ता वेदान्तीय विचारलाई नै काव्यको वैचारिक पृष्ठभूमिको रूप दिइएको यस काव्यमा काव्यतत्त्व र दर्शनको सुन्दर योग हुन पुगेको छ । प्रकृतिलाई उपमेयत्व परिकल्पना गरेर लेखिएको 'ऋतुविचार' खण्डकाव्यमा उपमानभूत तत्त्व समाज, इतिहास, पुराण, दर्शन जस्ता बहुविध रहेका छन् । यिनमा साङ्ख्य, न्याय आदि दर्शनको प्रभाव रहे पनि मानव सभ्यता, संस्कृति एवं विकासलाई हेर्ने दृष्टि भने वेदान्त दर्शनको जीव, ईश्वर र मायाकै मूल आधारबाट लिइएको देखिन्छ । भवचक्र अनादि र अनन्त भए पनि जीव आत्मा कर्म र संस्कारलाई परिशोधन गर्दै एकदिन मोक्षको अधिकारी बन्न सक्छ भन्ने विचार यहाँ व्यञ्जित भएको देखिन्छ ।

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भूमिप्रसाद दाहाल*

विषयप्रवेश

हास्य र व्यङ्ग्य अलग-अलग शब्द हुनका साथै यिनीहरूको अर्थिक सामर्थ्य पनि भिन्ना-भिन्नै रहे पनि साहित्यमा यी दुईलाई जोडी बाँधेर एक-अर्काको परिपूरकका रूपमा हेरिएको देखिन्छ । हास्य-व्यङ्ग्य साहित्यले पाठकहरूमा एकातिर आनन्दको अनुभूति दिन्छ भने अर्कातिर यसले सुधारको सन्देश पनि दिने भएकाले प्रयोजनका दृष्टिले हेर्दासमेत आनन्दानुभूति र शैक्षिक संप्रेषण दुबैलाई हास्य व्यङ्ग्यले वहन गरेको पाइन्छ । यो नेपाली साहित्यका गद्य र पद्य दुवै क्षेत्रका कविता, कथा, निबन्ध, काव्य तथा उपन्यास आदिमा व्याप्त छ । यसका साथै बैदिक र चिन्तनपरक सामाजिक, राजनीतिक, आर्थिक र समसामयिक लेखनमा समेत हास्य-व्यङ्ग्यात्मक शैलीको प्रयोग गरिएको हुन्छ । यसको उत्पत्तिलाई हेर्दा हास्यको प्रादुर्भाव विकृतिबाट र व्यङ्ग्यको उत्पत्ति विसङ्गतिबाट भएको (लुईटेल, २०५८:६४) देखिन्छ ।

साहित्यमा हास्य-व्यङ्ग्य कुनै न कुनै विधाको प्रस्तुतिबाट प्रकट हुने भएकाले यो साहित्यिक विधाको प्रयोजनपरक भेदका रूपमा पनि रहेको देखिन्छ (सुवेदी र शर्मा, २०५१) । हास्य-व्यङ्ग्यलाई विधा कि शैली मान्ने भन्ने कुरामा मतैक्यता पाइदैन तापनि यो साहित्यमा स्थापित सबैजसो विधामा रहने भएकाले यो विधागत शैलीका रूपमा रहेको छ भन्ने निष्कर्षमा पुग्न उपयुक्त होला । हास्य-व्यङ्ग्यलाई वक्रोक्तिका रूपमा अलङ्कारवादमा र रसध्वनिवाद दुवै दृष्टिले हेरिएको छ तर हास्य-व्यङ्ग्यको रसध्वनिवादतर्फ नै पल्ला भारी छ भन्दा अर्घेलो हुँदैन । वास्तवमा भन्ने हो भने हास्य रससँग सम्बन्धित छ भने व्यङ्ग्य व्यञ्जनावृत्तिबाट प्राप्त हुने विशिष्ट किसिमको व्यङ्ग्यार्थ ध्वनिसँग सम्बन्धित छ । साहित्यमा रसध्वनिवादको सम्बन्ध निकटतम रहेकाले हास्य-व्यङ्ग्य पनि यसैसँग सम्बन्धित भएर कहिले धेरै, कहिले थोरै कहिले सहभाव, कहिले एकीभाव र कहिले एकाकार भएर प्रस्तुत हुने गर्दछ । हास्य-व्यङ्ग्य एक आपसमा निकटता र दूरता पनि कायम राख्छन् । हास्य स्वतन्त्र रससँग सम्बन्धित देखिन्छ भने व्यङ्ग्यमा व्यञ्जनावृत्तिबाट प्राप्त हुने ध्वनित अर्थमात्र पाइन्छ (सुवेदी, २०६८:ख) । हास्यले हृदयको आल्हाद प्रकट गर्दछ भने व्यङ्ग्यले मस्तिष्कमा उत्तेजना, घृणा, तिरस्कार, निन्दा, विरोध, प्रतिशोध आदि भाव पैदा गराउँछ । हास्यमात्रले केवल मनोरञ्जन दिने र व्यङ्ग्यमात्रले घृणा र वैमनस्यताको भावना पैदा गर्ने भएकाले हास्य-व्यङ्ग्य दुवैको युतिमा हाँसो र व्यङ्ग्यको माध्यमबाट केवल विहसन्को मनोरञ्जन मात्र नभएर विकृति र विसङ्गतिबाट समाजलाई मुक्त गराउन सामाजिक, आर्थिक, राजनैतिक, शैक्षिक, प्रशासनिक, धार्मिक, सांस्कृतिक आदि विभिन्न क्षेत्रबाट भएका गल्ती र कमी-कमजोरीबाट व्यक्ति, समाज, राष्ट्र तथा अन्तर्राष्ट्रिय क्षेत्रलाई समेत सुधारको सन्देश दिने उद्देश्य राखिएको देखिन्छ ।

* लेखक दाहाल नेपाली विभाग दमक बहुमुखी क्याम्पसका उपप्राध्यापक हुनुहुन्छ ।

संग्रहको समीक्षा

रोहिणीविलास लुईटेल मूलतः कवि हुन् तर हस्य-व्यङ्ग्य निबन्धकारका रूपमा पनि उनका 'अपराजेय कटाक्ष' (२०५८) र 'बुद्धिबङ्गारो' (२०६९) प्रकाशित भइसकेका छन् । लुईटेलका यहाँका निबन्धहरूमा हस्यतत्त्वभन्दा बढी व्यङ्ग्यतत्त्व पाइन्छ । खास गरी 'बुद्धि-बङ्गारोभिन्न' समेटिएका निबन्धहरूले नेपालको सामाजिक, आर्थिक, धार्मिक, सांस्कृतिक, शैक्षिक तथा प्रशासनिक आदि विभिन्न क्षेत्रमा देखा परेका विकृति, विसङ्गति र कमी-कमजोरीप्रति रमरम हास्य र तीव्र व्यङ्ग्य प्रहार गरेका छन् । यस संग्रहमा १९ वटा हास्य-व्यङ्ग्य निबन्धहरू सङ्कलित छन् । निबन्धका विषयवस्तु पनि विभिन्न खाले नै छन् । यस लेखमा 'बुद्धिबङ्गारो' निबन्ध संग्रहभित्रका निबन्धहरूमाथि संक्षिप्त चर्चा गर्ने प्रयास गरिएको छ ।

प्रस्तुत संग्रहमा 'बुद्धिबङ्गारो-२' र 'बुद्धिबङ्गारो-१' गरी दुईवटा 'बुद्धिबङ्गारो' शीर्षकमा निबन्ध छन् । यहाँ बुद्धिमान् र वयस्क हुनुको प्रतीक 'बुद्धिबङ्गारो' पलाएपछि मानिस ज्ञानी बुद्धिमान् र विवेकशील होला भन्ने लोकमान्यताको विरुद्धमा यस्ता बुद्धिबङ्गारेहरूले नै समाजमा नचाहिँदा काम गरेको विकृति र विसंगति फैलाएको कुराप्रति लेखकले हस्य-व्यङ्ग्य प्रहार गरेका छन् । व्यक्ति, समाज र राष्ट्रलाई जति ठग्न सक्थ्यो उति धेरै बुद्धिमान् कहलाउने र कहलिने परिपाटीप्रति यसमा लेखकको विरोध छ । आफूलाई निकै गतिलो बुद्धिबङ्गारे ठहराएकाहरूले नै सुटुक्कै अर्काको बुद्धिबङ्गारो चोरेर आफ्नो बनाउने गरेकामा लेखकले आपत्ति त प्रकट गरेका छन् तर आपत्ति प्रकट गर्दा आफैं विपत्तिमा परिन्छ कि भनेर डरले चुपचाप बस्नु पर्ने यथार्थताप्रति ध्यानाकर्षण पनि गराएका छन् । यसमा बुद्धिबङ्गारो पलाएपछि नै भन् धेरै कुबुद्धिको विकास हुने गरेको लोभ, मोह, पाप, आशक्ति, स्वार्थीपन र अहङ्कार बढ्ने गरेको कुराप्रति यी दुई निबन्धमा व्यङ्ग्य प्रहार गरिएको छ ।

ढाँटेर, छलेर, प्रपञ्च गरेर, देशलाई दाउमा राखेरै भए पनि पैसा कमाउन सके आफूलाई ठूलो बुद्धिमान् ठान्ने समाजको विकृत संस्कृतिलाई यहाँ देखाउँदै भारतीय संस्कृतिका मानिसहरूले आफ्नो सभ्यता, संस्कृति र पहिरनलाई बचाइराख्न सफल भए पनि हामी नेपालीले आफ्नो भेष-भूषालाई वेवास्ता गरेकामा लेखकको तीव्र आक्रोश छ । यसमा देशका लेखक तथा बुद्धिजीविहरूले राष्ट्रिय राजनीति र राष्ट्रलाई सही मार्गमा डोर्‍याउन नसकेकामा व्यङ्ग्य गरिएको छ । संसारका विकसित र शक्तिसम्पन्न राष्ट्रहरूले निर्धा र शक्तिहीन राष्ट्रहरूलाई कजाउन सक्नुमा नै आफ्नो बुद्धिमत्ता ठान्ने गरेको कुराप्रति पनि लेखकले घोच-पेज गरेका छन् । राष्ट्रलाई हाक्ने राजनेताहरूको बुद्धिबङ्गारो खुस्किनेको हो कि ? भन्ने प्रश्न उठाउँदै जमाना होइन मान्छेको व्यवहार उल्टिएर भएका बिब्ल्याँटे व्यवहारप्रति नै यसमा लेखकको आक्रोश पोखिएको छ ।

यस्तै यस संग्रहको अर्को लेख- 'अमूर्त ब्रह्मचारी' छ । यसमा लेखकले समाजमा खुलेआम यौनविकृति चलेको, महिला-पुरुषमा छाडापन व्याप्त रहेको, यौनहिंसाभन्दा पनि यौनरोमान्स चलेको, रात्रिकालीन पाटी र भोजभतेरले विकृत रूप लिन थालेको, कोही ब्रह्मचारीको ब्रह्मचर्य भङ्ग गर्न लागेका र कोही द्रौपदीको चीरहरण गर्न लागेको दृश्यप्रति लेखकले कडा नगर हुत्याएका छन् । समाजमा दाइजो प्रथाले जरा गाड्दै छ भने कोही चाहिँ राजनीति र स्वार्थपूर्तिका लागि बहिनीलाई नै 'बलीको पाठी' बनाउँदै छ भन्ने कुरा देखाउँदै

महिलालाई पैतृक सम्पत्तिमाथिको अधिकार सम्बन्धी कानूनका सकारात्मक र नकारात्मक पक्षको आँकलन पनि यसमा गरिएको छ ।

संग्रहमा रहेको अर्को 'जन्मजन्मान्तर' निबन्धमा एकचोटि पार्टीको टिकट पाएर निर्वाचन लडेका अनि जितेका व्यक्तिहरूले सम्बन्धित क्षेत्रलाई जन्मजन्मान्तर आफ्नो निजी सम्पत्ति जस्तो ठान्ने प्रवृत्तिको विरोध गरिएको छ । चुनावको अस्वस्थ प्रतिस्पर्धा, प्रतिपक्षी उमेदवारहरूलाई लगाउने गरिएका विविध लाञ्छना तथा विरोधका अपाच्य शैलीलाई समेत यसमा व्यङ्ग्य गरिएको छ । हुने र सक्नेले पद-प्रतिष्ठा र पैसाको दुरुपयोग गरी चुनाव प्रचार गर्न सक्ने अवस्थामा कमजोर उम्मेदवारको केही जोड लाग्दैन । निर्वाचन आचारसंहिताको खिल्ली उठाइरहेको अवस्थामा नयाँ निर्वाचनबाट पनि जनताले खासै उपलब्धि प्राप्त गर्न नसक्ने कुराप्रति यसमा सचेत गराइएको छ ।

'भट्ट्याक्-भट्ट्याक्' शीर्षकको निबन्धमा मानिसलाई भट्ट्याक्भट्ट्याक् अर्थात् पिरलोले कहिल्यै छ्छाड्दैन । घरगृहस्थीका त यस्ता धेरै माग जुटाउनु पर्ने काम पर्छन् र उनीहरू पिरोलिन्छन् तर साधु, सन्त तथा महन्तहरूलाई पनि किन यसले नछोडेको होला ? लेखकको जिज्ञासा रहेको छ । भाषासाहित्यिक क्षेत्रमा काम गर्ने संघ-संस्थाहरू प्रज्ञाप्रतिष्ठान, साभाप्रकाशन, महानन्दपुरस्कार जस्ता संस्थाहरूमा पनि आफ्नैलाई पायक पार्ने भट्ट्याक् भट्ट्याक् रहेकामा लेखकलाई आश्चर्य लागेको छ । काठमाण्डौंका साहित्यिक संस्थाहरूमा नातावाद कृपावाद चलेर प्रदूषण फैलिएको र अब काठमाण्डौं टुकुचा बन्न भट्ट्याक् भट्ट्याक् गरिरहेको नेपाली भाषालाई कमजोर पार्न चारैतिरबाट आक्रमण भइरहेको अवस्थाप्रति लेखकको आपत्ति छ । पर्यटकीय क्षेत्र फोहोरका डङ्कुर भइरहेका, शिक्षाक्षेत्रमा नियुक्ति, सरुवा, बढुवा जस्ता अवसरमा हुने गरेको पक्षपातपूर्ण व्यवहार, निजी विद्यालयमा भएको शिक्षाको व्यवसायीकरण, मुखले मानव अधिकारको दुहाइ दिए पनि त्यसको विरुद्धमा जान शक्तिसम्पन्न राष्ट्रहरू भट्ट्याक्-भट्ट्याक् भएको देखाउँदै विसंगतिले नबिटुल्याएको मानिस भेट्न असम्भव रहेको निष्कर्ष निकालिएको छ ।

अर्को 'भङ्खालो' शीर्षक निबन्धमा नेपालको राजधानी नै भङ्खालामा रहेकाले त्यहीबाट धेरै धेरै भङ्खालामा जकाउने र जाकिने कामहरू भइरहेका छन् । देशको आर्थिक अवस्था भङ्खालामा परेकैले युवा-युवतिहरू खाडीमुलुक गएर आना सुकी जोड्न बाध्य भएका छन् । जताततै भङ्खाला पर्ने संस्कृतिबाट मुक्ति पाउन नेपालीले कहिले सक्लान् ? आज प्रजातन्त्रको परिभाषा बदलिएको छ । भङ्खाला त मागीखाने भाँडा भएका छन् । देशको शिक्षा भङ्खालामा परेको छ । प्रजातन्त्र प्राप्तपछि भन् ठूला भङ्खालाहरू परेका छन् । राजनीतिका आदर्श र सिद्धान्तहरू भङ्खालामा परेका छन् । मुख्य रूपमा निम्न ६ प्रकारका भङ्खालाहरू यसमा देखाइएका छन् ।

१. असत्य वाचाबन्धन २. सिद्धान्त विहीनता ३. रिक्त आश्वासन ४. अकर्मण्यता ५. रक्तपिपासा ६. शारीरिक मानिसक, वचनीय शोषण र चोषण ।

निष्कर्षमा भन्नु पर्दा जति सक्दो मानिसलाई भुक्त्याउने, छलप्रपञ्च गरी अरुलाई भङ्खालामा हालेर आफूचाहिँ डिलमा बसी रमिता हेर्न सक्ने खुबी भएको व्यक्ति नै आजको दुनियामा प्रतिष्ठित ठहरिएकामा लेखकको व्यङ्ग्योक्ति छ ।

‘जय आलस्यवाद’ शीर्षक निबन्धमा आजको मानवले आफूलाई एक्काइसौं शताब्दीको निकै विद्वान् र ठालू संभे पनि आलस्यवादको पछि लाग्नु उसको नियति नै बनेको छ । राष्ट्र विकासको अभियानमा नलागेर आज नेपालीहरू एक आपसमा विद्वेषका विषाक्त विउ छरिरहेका छन् । अलछ्छी, ढिलासुस्ती सहितको आलस्यवादले सरकारी कुर्सीमा नै बढी फूलने र फल्ने मौका पाएको कुरालाई यहाँ लेखकले राखेका छन् । शैक्षिक योग्यताका किनुवा प्रमाण-पत्रले यसलाई अझ बढी उत्साहित बनाएका छन् । राष्ट्रसेवक कर्मचारीहरूमा पनि विभिन्न संघ-संगठनहरू खोलेर त्यसको नेता हुँ भन्ने घमण्डले आलस्यवादलाई अझ बढी फल्ने मौका दिएको छ । बहुदलीय व्यवस्थामा त आलस्यवादले एक छोडी अर्को दल खोलेर ‘मनभोग’ लगाउने प्रथा चलेको प्रति लेखकको ठूलो गुनासो देखिन्छ ।

“तबै तारे मामा” शीर्षक निबन्धमा लेखकले नेपाली समाजमा चलेका विभिन्न ‘थेगाहरूको’ स्मरण गराउँदै भाषा-साहित्यिक क्षेत्रका पुरस्कार वितरणमा देखापरेका नातावाद, कृपावाद तथा विचारवादको उछितो काढेका छन् । राजनीतिमा पहुच नभएपछि साहित्यतिर लागि टोपलेर पुरस्कारको राशिमा आँखा तन्काउने ‘तबैतारे मामा’ हरूलाई लेखकले व्यङ्ग्य हानेका छन् । बोली अनुसारको लोली मिलाई समय र परिस्थिति अनुसारको रङ्ग बदल्ने ‘तबैतारेहरूकै’ बोलबाला रहेकोमा लेखकको मन कटक काटिएको छ ।

‘रुपियाँका बिटा’ निबन्धमा सपनामा रुपैयाँको बिटा पाएको र बिपनामा छामछमु गर्दा नभेट्दाखेरि रोएको अनि आमाले संझाएको प्रसङ्ग कोट्याएर शिक्षकजस्तो सेवामूलक पेशामा २५ औं वर्ष लागे पनि निर्वाह बाहेक केही हुन नसक्ने तर भन्सारको कर्मचारी र मन्त्री हुन पाए मात्र पैसाको बिटा देख्न पाइने, अरुले पैसाको बिटा देख्नु भनेको ‘दिवा स्वप्न’ जत्तिकै हो, भन्ने कुरा देखाउँदै आर्थिक क्षेत्रमा कर्मचारी र मन्त्रीज्यूहरूबाट हुने गरेका भ्रष्टाचारलाई लेखकले व्यङ्ग्य हानेका छन् । अस्थिर राजनीति र सानोतिनो जागिरमा पनि राजनैतिक प्रभाव पर्ने गरेकाले बहुदलीय व्यवस्थामा त भन् आफ्नो आस्था जोगाएर जागिर खान नै मुस्किल हुन थालेको अवस्थाप्रति लेखकले चिन्ता प्रकट गरेका छन् ।

‘जय नारी !!!’ शीर्षक निबन्धमा २०४६ सालमा प्रजातन्त्रको पुनर्वहाली पछि विभिन्न पत्र-पत्रिकाहरूमा महिलाका अश्लील र अर्धनग्न तस्बिरहरू प्रकाशित भइरहेकामा लेखकले आपत्ति प्रकट गरेका छन् । अहिलेका बहुदले नेताहरू पञ्चायत कालका निर्दलेहरूले नारीको इज्जत गर्न नसकेको विभिन्न काण्डहरू मच्चाएकोमा विरोध गर्थे तर तिनै नेताहरू आफ्ना पालामा अझ खुलेआम विकृति बढ्दा पनि रोक्न सक्तैनन् ? भन्ने प्रश्न गर्दै उच्च ओहोदामा रहेका व्यक्तिहरू नै यसका पृष्ठपोषक भएकाले छाडावादको विस्तार दिनप्रतिदिन बढ्दै गएकोमा लेखकले आक्रोश पोखेका छन् । स्वतन्त्रता, स्वच्छन्दता र छाडापनको पहिचान र सीमाङ्कन गर्न नसक्ने हो भने स्वतन्त्रता स्वच्छन्दतामा परिणत हुन सक्छ । नारीवादी संघ संस्थाले पनि यस्ता कुरामा ख्याल राख्न जरुरी छ । एकातिर पितृसत्ताले शोषण गर्‍यो भन्ने अनि अर्कातिर आफैं उत्तेजक विज्ञापनका पोर्जहरू दिँदै जाने हो भने शोषण र विकृतिको अन्त्य हुन सक्तैन भन्दै व्यङ्ग्यात्मक रूपमा नारीको ‘जयकार’ लगाएर यो निबन्ध अन्त्य गरिएको छ ।

‘नारदको चेतना’ शीर्षक निबन्धमा मिथकीय पात्रहरू नारद, देवराज इन्द्र, वृहस्पति गुरु तथा देवताहरूको प्रयोग गर्दै अब राजतन्त्र जीवित ररिरहने हो भने त्यसले जनताको इच्छा अनुसार काम गर्नुपर्दछ र आफूलाई बदल्नु पनि पर्दछ भन्ने कुरा लेखकले राखेका छन् । राज-संस्थाको आसपासमा रहेकाहरूले नै गलत सल्लाह दिएर यसलाई धराशायी बनाउन आँटेका कुराप्रति लेखकको सङ्केत छ । समय परिस्थिति अनुसार परिवर्तन हुन नसके ‘डायनोसर’ पनि मासिन्छ भन्ने कुरा देखाउँदै पौराणिक मिथकका नारदले आजका पत्रकारहरूको जस्तै काम गरेको कुरा यसमा देखाईएको छ । नारदको क्षमता धेरै भएकाले देवाज इन्द्र, गुरु वृहस्पति आदि सबैलाई सहमतिमा ल्याउन सक्थे । आजका पत्रकारले के गर्न सक्लान् ? भन्ने प्रश्न गर्दै निबन्धकारले नारदको चेतनालाई विशिष्ट पत्रकारिताको उपाधि दिएका छन् ।

‘सिरानमुनि किन ?’ निबन्धमा नेपाली समाज अब विदेशीको भक्त बनेको, अङ्ग्रेजीको दास बनिसकेको, अङ्ग्रेजी नजान्नेले सामान्य शिष्टाचार पनि बुझ्न नसक्ने अवस्था आइसकेको कुरालाई व्यङ्ग्यात्मक ढङ्गले प्रस्तुत गरिएको छ । यसै क्रममा ‘कङ्ग्याचुलेसन’ लाई काक्रो चुलेसी र सेरेमोनियल’ लाई सिरानमुनि भन्ने बुझेर निबन्धकारको म पात्र यहाँ तीन छक्क परेको छ । सभ्यता, शिष्टाचार, भोजभतेर, नातोताँतो आदि सबै ठाउँमा अङ्ग्रेजी शब्दहरूको प्रयोगले गर्दा नेपाली भाषा बोल्ने व्यक्ति नेपालमै जोकर हुन आँटेको र यस्तै हो भने नेपाली भाषा, भाषा नभएर कटमिरो खिचडी बन्न धेरै समय लाग्दैन भन्ने कुराप्रति यसमा सचेत गराइएको छ ।

“असारको चटारो” निबन्धमा ‘मानू खाएर मुरी उब्जाउने’ असार कृषिप्रधान देशमा चटारोको उपमा नै बनेको छ । यसै समयमा संविधानसभाको निर्वाचन तोकेर चटारोमाथि झटारो हान्ने काम भएको छ । असार ८ गते भूमिरज र त्यसको ७ दिन पछि असार १५ गते हिले दशैं, रोपाईजात्रालाई जीवविज्ञानदेखि कृषि विज्ञानसम्मको सन्दर्भले लेखकले हेरेका छन् । असारमा नै राजालाई ‘हिरक जन्मोत्सव’ मनाउने चटारो पर्नु, यसैबेला तस्करलाई रक्तचन्दन तस्करीको चटारो पर्नु, त्यस्तै त्रिशूलबाबाको भविष्यवाणी पछिको चटारो, एस.एल.सी. को परीक्षाफलको चटारो, भानुभक्त जयन्तीको चटारो, मुक्त कर्मैयाको धर्ना, कर्मचारीको तालाबन्दी आदि आदिले २०६३ को असारलाई साह्रै चटारो परेको कुरालाई यहाँ निबन्धकारले प्रस्तुत गरेका छन् ।

‘दुपट्टा मेरा’ निबन्धमा बम्बैमा कोठी सञ्चालनका लागि नेपालका चेली बेटी बेच-बिखनमा दलालको काम गर्ने र त्यसै क्रममा पदोन्नति पाएर ‘बाइजी’ बनेका महिलाहरूको चुरीफुरी र तिनका आसेपासे, पुरुषहरूको भित्री बाहिरी व्यवहारलाई देखाउँदै त्यस्ता व्यक्तिहरू खुलेआम गाउँघरमा हिड्ने गरेको कुरालाई लेखकले रोमाञ्चक ढङ्गबाट प्रस्तुत गरेका छन् । भट्किलो रूप र रसरङ्गमा चुरोटको धुँवा फ्याँक्दै हिडेका बाइजीहरूको रवाफमा यहाँ निकै गतिला मानिसहरू फस्ने गरेको कुरालाई देखाउँदै अनजानमै अथवा जानी-बुझी बम्बैका कालकोठीमा पुगेका नेपाली महिलाहरू नै रहँदै बस्दै जाँदा ‘बाइजी’ भएर नेपाल आई चेलीको वेच-बिखनको धन्दामा लाग्ने गरेको कुरा र उनीहरूको त्यस किसिमको निचकार्यप्रति व्यङ्ग्य गर्दै जस्तोसुकै घृणित कर्म गरेर भए पनि पैसाप्रति मरिहत्ते गर्ने मानवीय दुष्प्रवृत्तिको यस निबन्धमा घोर निन्दा गरिएको छ ।

अर्को 'राजनीति सत्य' निबन्धमा देशमा सबै क्षेत्रलाई राजनीतिले प्रभाव पार्दै बिटुल्याएको 'ब्रह्म सत्यं जगन्निध्या' भनेर हिँड्नेहरूले पनि राजनीतिलाई सत्य देख्न थालेका, मानिसहरू राजनैतिक दलहरूका अन्धभक्त बनेर हिडिरहेको, साहित्य, कला, राष्ट्रसेवा आदि विविध क्षेत्रमा राजनीति नै सत्य सावित हुन थालेको, नेपालीले नै नेपाली राष्ट्रियतामाथि व्यङ्ग्य गर्न थालेको पुराणजस्ता धार्मिक कार्यमा नाचगानले बढी महत्व पाउन थालेको, प्रजातन्त्र, लोकतन्त्र तथा गणतन्त्र जस्ता समान धर्मी र समानार्थी शब्दहरूको मर्म पनि मानिसले बुझ्न नसकेको, शिक्षा र समाज दुवै उपभोक्तावादी बन्दै गएको अवस्थाप्रति लेखकले व्यङ्ग्य प्रहार गरेका छन् । पुराण, महाभारतलाई कसैले राजनीति मात्र देख्दछन् भने त्यो दृष्टिभ्रम हुन्छ । गाँठी कुरा त के हो भने यिनीहरू खालि राजनीति होइनन् तर यीभित्र धेरै हदसम्म राजनीति अन्तर्गर्भित छ । कसैले राजनीतिको अर्थ राजनीति मात्र लगाए पनि वास्तवमा नीतिहरूको राजाचाहिँ राजनीति हो । यो राजतन्त्रसँगै समाप्त हुने नभएर राज्यको नीति भएर अडिनु पर्दछ । अनैतिक सत्य र नैतिक मिथ्या हुनु हुँदैन तर राजनीतिमा हिजोआज उठेका कुराहरूको परिभाषा गर्न नसकिने अवस्था आएको छ । त्यसैले वर्तमानको नेपाली राजनीति ज्यादै कटमिरो छ भन्ने कुरा यस निबन्धमा देखाएको छ ।

'उपरतली' निबन्धमा निबन्धकारले उपरतली अथवा वान्ता र भाडा-पखाला एकैचोटि लाग्ने महामारी रोगको प्रकोपको प्रसङ्ग कोट्याउँदै उहिले उहिले दरवारतिर बोलिने आइस्योस्, गइस्योस् जस्ता 'स्योस्' लागेका अहिले गण-गणमा पुगिसकेका, राजतन्त्र विदावारी भइसके पनि 'स्योस्' तन्त्रले समाजमा मज्जले स्वागत प्राप्त गरेको र यो उपहारबाट तलतिर भरेको संस्कृतिले नेपालीहरूलाई उपरतली लगाउँछ कि भन्ने आशङ्का निबन्धकारले व्यक्त गरेका छन् । कटुवाल प्रकरण, कालापत्थर बैठक प्रकरण, खान्ते-पिन्तेका प्रकरणलाई जोड्दै देशलाई रोग लागेको बेला शयर र भोज-भतेरमा रम्ने राजनीतिप्रति लेखकले आक्रोश पोखेका छन् ।

त्यस्तै 'तर्साउने त्र' निबन्धमा क-ज्ञ सममका ३६ व्यञ्जन वर्णहरूलाई राख्दै कपुरी 'क' खरायो 'ख' को क्रममा यिनीहरूको नाम कसरी र किन रह्यो होला ? भन्ने जिज्ञासा राख्दै समसामयिक व्यङ्ग्य प्रहार गरिएको छ । यस क्रममा तर्साउने 'त्र' लाई लेखकले विशेष ध्यान दिएका छन् । यसमा २४० वर्षे राजशाही १०४ वर्ष राणाशासन, , ३० वर्षे पञ्चायती शासन, १० वर्षे द्वन्द्व आदिले नेपालीहरूलाई नराम्ररी तर्साएका छन् । अब फेरि कतिले तर्साउने हुन् भरोसा छैन । 'त्र' का अन्य धेरै वैकल्पिक नाम हुँदा-हुँदै पनि तर्साउने 'त्र' नै किन भयो होला त भन्ने कुरालाई लेखकले वर्तमान राजनीतिसँग जोडेर हेर्ने प्रयास गरेका छन् । अरुमाथि त्रास र आतङ्क उत्पन्न गरेर आफू अघि बढ्न खोज्नु वर्तमान राजनीतिको चारित्रिक विशेषता नै बनिसकेको छ भन्ने कुरा यसमा देखाइएको छ ।

त्यस्तै 'लुम्लेको कुम्ले बिहे' निबन्धमा बेलायती महिला 'जो आना लुम्ले' को नेपालप्रतिको सद्भाव तथा स्वागतार्थ उपस्थिति भएको भिडभाडलाई देखेर ६३ वर्षमा लुम्लेको कुम्ले बिहे नै पो भएको हो कि ? भन्ने कुरालाई निबन्धकारले यहाँ उत्प्रेक्षा गरेका छन् । नेपालमा विदेशीहरू कुनै न कुनै बहानामा आउँछन् । सबैको नियत सफा हुँदैन । विदेशीलाई नागरिक अभिनन्दकै रूपमा प्रस्तुत हुन चाहिँ सोच पुर्‍याउनै पर्दछ है ! भन्ने कुरालाई यसमा राख्दै भोज भतेर भनेपछि अपहत्ते गर्ने नेपालीहरूले यस्ता खाले घटनाबाट खुशी मात्र होइन सतर्क पनि रहनु पर्दछ भन्ने विचार यसमा प्रस्तुत गरिएको छ ।

‘डा. नारदमुनि’ निबन्धमा २/४ वर्ष विदेशतिर गएर पी.एच.डी. गरी नेपाल फर्कनेहरूले नेपाली सभ्यता, संस्कृति र भाषा नै विसर्भै गरी स्वाङ्ग रच्ने गरेकोमा लेखकले त्यस्ताप्रति यहाँ व्यङ्ग्य गरेका छन् । संसार कहाँबाट कहाँ पुगिसक्यो तर नेपाल भने जातीय राजनीतिमा नै अल्झिरहेका, अंग्रेजीले संसारलाई पिटिरहेको कुरालाई नारद र विष्णुको संवादको माध्यमबाट प्रस्तुत गरिएको छ । संसारले गरेको प्रगति नारदको माध्यमबाट प्रस्तुत गर्दै विष्णुपक्षलाई प्राचिन र नारदपक्षलाई अर्वाचीन पक्षको रूपमा देखाइएको छ । विष्णुलोकबाट नारदको सवारी इन्द्रलोकतिर पनि भएको छ । त्यहाँ नारदले धराधामबाट विवाह गरेर लगेकी विश्व सुन्दरीलाई प्रस्तुत गरेपछि त इन्द्र पनि तीन छक्क परेका छन् । त्यस्तै आधुनिक नारदले लगाएको ‘टाई’ को वर्णनले अकमक्क भएका छन् । यस प्रकार विभिन्न पौराणिक मिथकीय पात्रहरूलाई आधुनिकीकरण गर्दै आज ‘देवर्षि नारद’ डक्टर्षिमा परिणत हुँदै गएको, आधुनिकतलाई वरण गर्न नसक्ने व्यक्ति काम नलाग्नेमा गनिन थालेको विदेशी सभ्यता ग्रहण गर्न सक्नु बहादुरी हुन थालेको कुराप्रति लेखकले यसमा व्यङ्ग्य हानेका छन् ।

निष्कर्ष

भापाको शनिश्चरे बसोवास गरी शिक्षा क्षेत्रलाई नै कार्यक्षेत्र र भापालाई कर्मथलो बनाउँदै आएका लुईटेलको यस अघि नै अपराजेय कटाक्ष (२०५८) हास्य व्यङ्ग्य संग्रह प्रकाशित भइसकेको छ । यसमा प्रायः गरेर स्थानीय क्षेत्रकै सामाजिक, आर्थिक, राजनैतिक, प्रशासनिक, शैक्षिक, सांस्कृतिक जस्ता विभिन्न क्षेत्रका गतिविधिहरूमा देखापरेका विकृति, विसंगति र कमी-कमजोरीप्रति रमरम हास्य र तीब्र व्यङ्ग्य प्रहार गरिएको पाइन्छ । बुद्धिबङ्गारो हास्य व्यङ्ग्य निबन्ध संग्रह (२०६९) मा भने लेखक स्थानीय, राष्ट्रिय र कतै अन्तर्राष्ट्रिय विषयवस्तु र व्यक्तिगत, सामाजिक, स्वदेशिक तथा वैदेशिक समस्याहरूलाई पनि उठाउँदै हास्यव्यङ्ग्य प्रहार गर्दछन् ।

मूलतः लुईटेल कविका रूपमा चिनिन्छन् तापनि हास्यव्यङ्ग्य निबन्ध क्षेत्रमा समेत २ वटा कृति प्रकाशन गरेर आफ्नो स्थान बनाउन सफल बनेका छन् । अपराजेय कटाक्षको तुलनामा बुद्धिबङ्गारोको निबन्धहरूले स्तरीकरणको मानदण्ड पछ्याउँदै गएको पनि देखिन्छ । हास्य-व्यङ्ग्य त मूल रूपमा रस- ध्वनिको विषय हो । छन्द, अलङ्कार, रीति, गुणभन्दा पनि बढी यसको महिमा हुन्छ । साहित्यका यी सबै अभिलक्षणहरूलाई पार गरेर रसात्मक र ध्वन्यात्मक अवस्थामा पुग्न सक्नु आफैमा परिपूर्ण र चुनौतिपूर्ण विषय पनि हो । लुईटेलले बुद्धिबङ्गारो लिएर यस दिशातर्फ यात्रा गर्ने प्रयास गरेको देखिन्छ । भैरव अर्यालको उचाइमा पुग्न त को लेखक सक्ला र ? लुईटेलको भाषाशैली अनुप्रासलेयुक्त, कतै सरल, कतै भर्सा शब्दको प्रयोग र कतै तत्सम पद पदावलीले युक्त समग्रतामा बोध गम्य नै देखिन्छ ।

सन्दर्भ-सूचि

नरनाथ लुईटेल नेपाली हास्यव्यङ्ग्य (२०५८), काठमाण्डौ: सिस्नुपानी, नेपाल
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समृद्धिको यात्रामा सहकारीको भूमिका

डि.बी. थापा*

सार

मुलुकको गणतान्त्रिक अभियान सँगै सहकारी ऐन/नियमावलीहरु सहकारी मैत्री बन्नु पर्दछ भन्ने मान्यताले केहि हद सम्म सार्थकता पाईरहदा सहकारी संघ/संस्थाहरुले केही राहत महसुस गरिरहेका छन् । सहकारी संघ संस्थाका लागि सहज वातावरण बनाइनु पर्दछ भन्ने आग्रह यसर्थ पनि सही छ की मुलुक प्रति सहकारी संस्थाहरुले केहि महत्वपूर्ण योगदान गरिरहेका छन् र आगामी दिनमा अन्य केही क्षेत्रमा अतुलनीय योगदान गर्न सक्ने अवस्था छ । विभिन्न प्रतिकूलताका बाबजुत पनि विगतमा सहकारी संस्थाहरुले नेपाल सरकारका गरिवी लक्षित कार्यक्रमहरु जनस्तरसम्म पुर्‍याउन, गरिवी न्यूनीकरण गर्न र राष्ट्रिय अर्थतन्त्रमा सकारात्मक योगदान पुर्‍याउन विभिन्न महत्वपूर्ण कार्यहरु संचालन गरिरहेका छन् भने अर्कोतिर मुलुकको स्थायित्व र विकासका लागि गणतान्त्रिक अभियानका सार्थक औजारको रुपमा काम गर्न, संघीयता सफल बनाउन, सामाजिक र सांस्कृतिक रुपान्तरणका लागि दिगो र वास्तविक औजार तयार गर्न, औद्योगिकीकरणको साभेदारको रुपमा काम गर्न, कृषिजन्य आयातलाई प्रतिस्थापन गरी निर्यात प्रबर्धन गर्न, परनिर्भरताको अन्त्य गरी आत्मनिर्भरता बृद्धि गर्न, ठुला ठुला उत्पादन गृह निर्माण गरी रोजगारी सृजना गर्न, गरीबी निवारण गर्न, प्रतिव्यक्ति आयमा बृद्धि गर्न, कृषक र कामदारलाई उत्पादनप्रति उत्साहित गराउन, पर्यटन, उद्योग, व्यवसाय लगायत विभिन्न क्षेत्रहरुको विकास गरी सबै ढंगले समाजको आर्थिक र सामाजिक रुपान्तरण गरी समृद्ध नेपाल, सुखी नेपालीको राष्ट्रिय संकल्प पूरा गर्न सहकारी क्षेत्र भरपर्दो माध्यम बन्न सक्ने अवस्था छ ।

मुख्य शब्दावली

सहकारी, साकोस, सहकारी ऐन २०७४, स्थिरीकरण कोष, दिगो लक्ष्य, मानव विकास सुचांक ।

परिचय

हाल देशभरमा करिब ३४,५१२ सहकारी संस्थाहरु, ६३ लाख ५ हजार ५८१ शेयर सदस्यहरु, ७६ अर्व शेयर पूँजी, ३ खर्व २ अर्व १६ करोड वचत/निक्षेप, २ खर्व ९२ अर्व ७२ करोड कर्जा लगानी, करिब ६० हजारलाई प्रत्यक्ष रोजगारी र १० लाख जनतालाई अप्रत्यक्ष रोजगारी प्रदान गरी संचालित छन् (श्रोत: सहकारिता, त्रैमासिक, बर्ष ७, अंक १२, वैशाख-असार २०७५, पेज ४)। सहकारी क्षेत्रमा महिलाको सहभागिता ५१ प्रतिशत भन्दा बढी छ भने महिलाले संचालन गरेका सहकारीको संख्या ४ हजार ३ सय छन् । राष्ट्रिय निक्षेपमा सहकारीको हिस्सा २०% र राष्ट्रिय अर्थतन्त्रमा करिब ४% योगदान सहकारी क्षेत्रको रहेको छ । नेपालको कुल वित्तिय कारोवारको १९% कारोवार सहकारी मार्फत भैरहेको छ ।

मुलुकमा सरकारी, निजी र सहकारी गरी तीन खम्बे अर्थनीतिको माध्यमबाट आर्थिक विकासले तिब्रता पाईरहेकोछ । तीन खम्बे अर्थनीति भित्र सहकारी क्षेत्र समेटिएको तथ्यले मुलुकको आर्थिक विकासमा सहकारी क्षेत्रको भूमिकालाई प्रस्ट पार्दछ । सहकारी क्षेत्रको यो उपलब्धिको पछाडी कैयौ कारणहरु हुनसक्छन् । जसमध्ये प्रमुख कारण स्थानीय तहमा जनताका विविध समस्याहरुमा प्रत्यक्ष रुपमा जोडिएर आर्थिक, नैतिक र भौतिक सहयोग प्रदान गरी सो समस्या हल गर्न सक्ने क्षमताको विकास गराउनु नै हो । जनताका वित्तीय र गैद्वित्तीय दुवै प्रकारका समस्याहरुमा सहकारी क्षेत्रले पुर्‍याएको भूमिकाले हाम्रो समाज समृद्धिको बाटोमा अगाडी बढिरहेको छ । यो यथार्थलाई कसैले पनि नजरअन्दाज गर्नु हुदैन । दोश्रो राष्ट्रिय सहकारी महासम्मेलन २०७४ को उद्घाटन र

* लेखक थापा गणित विभाग दमक बहुमुखी क्याम्पसका उपप्राध्यापक हुनुहुन्छ ।

समापन सत्रमा व्यक्त गरिएका महत्वपूर्ण मन्तव्य र प्रस्तुत भएका ८ वटा कार्यपत्रले सहकारी क्षेत्र मुलुकको समृद्धिको महत्वपूर्ण र अपरिहार्य माध्यम हो भन्ने कुरालाई थप पुष्टि गर्नुका साथै सहकारी अभियान प्रतिको आकर्षणमा बृद्धि भएको छ (सहकारिता, त्रैमासिक, बर्ष ७, अंक १२, बैशाख-असार २०७५, पेज ३)। वास्तवमा राज्यले जनता प्रति पूरा गर्नुपर्ने दायित्वहरू सहकारीको माध्यमबाट क्रमशः पुरा भैरहेका छन् । ग्रामिण क्षेत्रमा आज पनि सचेतना, मानव स्वास्थ्य, कुपोषण, मितव्ययी व्यवहार, सुरक्षित मातृत्व, अशिक्षा, कुरिती, अन्धविश्वास, पछ्यौटेपन लगायतका क्षेत्रहरूमा विकराल समस्याहरू छन् र सहकारी संस्थाहरू आफ्ना सदस्यका यस्ता समस्या समाधानमा अहोरात्र लागि परेका छन् । सहकारी क्षेत्रले आफ्ना सदस्यहरूलाई स्वरोजगार मार्फत आय आर्जनमा केन्द्रित गर्ने, पेशा व्यवसायको वैज्ञानिक व्यवस्थापन गर्दै आर्थिक रूपमा सक्षम बनाउने, सामाजिक रुपान्तरणका लागि नेतृत्व विकाश गर्ने, सामाजिक स्वास्थ्य समस्यालाई व्यवस्थापन गर्न स्वास्थ्य सेवा कार्यक्रम संचालन गर्ने, समाजका जेष्ठ सदस्यहरूको सामाजिक सुरक्षाका लागि कार्यक्रमहरू संचालन गर्ने, प्राकृतिक प्रकोप एवं दैवी बिपत्तीमा राहतका कार्यक्रम संचालन गर्ने, सामाजिक शसक्तीकरणका कार्यक्रमहरू संचालन गर्ने, विपन्न वर्गका जनताको जनजीविकाका लागि विभिन्न कार्यक्रमहरूको प्याकेज तयार गरी कार्यान्वयन गर्ने, उनीहरूको सर्वाङ्गीण विकासका लागि अनेकौ प्रयत्न गर्ने कार्यहरू सहकारी क्षेत्रका निःशर्त एजेण्डाहरू हुन् । विभिन्न प्रतिकूलताहरूको बिचमा पनि यी कार्यक्रमहरू संचालन गरेर सहकारी संस्थाहरू एक हदसम्म जनताका बिचमा स्थापित बन्न सफल भैसकेका छन् । सहकारीको माध्यमबाट ग्रामीण क्षेत्रको जीवनस्तर उक्लिएको छ । यसको प्रमाणको रूपमा विश्व मानव सुचांकमा नेपालको आजको प्रगतितालाई लिन सकिन्छ । सरकारको मात्र (सहकारीको अभावमा) भूमिकाले यति चाडै यो उपलब्धि कल्पना पनि गर्न सकिदैन थियो होला । आज ग्रामीण क्षेत्रमा सहकारीका सदस्यहरू विगतको जस्तो अज्ञानता र अशिक्षाको चपेटामा छैनन् । आर्थिक, सामाजिक र स्वास्थ्यका दृष्टिले उनीहरू सहज ढंगले जीवन यापन गर्न सक्ने अवस्थामा छन् । घर व्यवहार चलाउन चर्को मुल्य चुकाउनुपर्ने साहु महाजनहरू माथि भर पर्नुपर्ने सामान्ति अवस्थाबाट मुक्त छन् । उनीहरूको जनजीवनमा धेरै परिवर्तन भएको छ । तर यतिले मात्र पुग्ने अवस्था छैन । अबै पनि बहुसंख्यक जनताहरू सहकारीताको पहुँच भन्दा बाहिर छन् । उनीहरूको पनि उत्थान आवश्यक छ । यसको लागि राज्यको तर्फबाट नीतिगत रूपमै केही गर्न आवश्यक देखिन्छ । राज्यले सहकारीको पहुँच नभएका क्षेत्रहरूमा सहकारी संस्थाहरू स्थापना गर्ने, त्यस क्षेत्रका जनतालाई अनिवार्य रूपमा सहकारी संस्थामा संगठित गर्ने, त्यस्ता सहकारी संस्था संचालनका लागि आवश्यक पर्ने भौतिक पुर्वाधार लगायत अन्य पक्षहरूको व्यवस्था गर्ने कार्य नीतिगत रूपमा गरेमा सो क्षेत्रको पनि आर्थिक र सामाजिक जीवनमा परिवर्तन गर्न सकिने अवस्था छ ।

सहकारीले गरिवी न्यूनीकरण, सामाजिक समावेशिता, सहकारिताको विकाश, रोजगारी श्रृजना, पूँजी निर्माण र परिचालन, वित्तीय शिक्षा, महिला सशक्तिकरण, सामाजिक उद्यमशिलताको विकाश, स्थानिय सम्भावनाको खोजी, स्वरोजगारीताको विस्तार, कृषिको व्यवसायीकरण मार्फत खाद्य सम्प्रभुता र सुरक्षा, नेतृत्व विकाश, सामाजिक उत्तरदायित्वको वहन आदी क्षेत्रमा उल्लेखनिय योगदान गरेको छ । सहकारीले यी क्षेत्रहरूमा पुर्‍याएको योगदानको मापन आधिकारिक ढंगले आज सम्म भएको छैन । यसको मापन नेपाल सरकारले गरेको भन्ने आम सहकारी क्षेत्रको चाहना हो । त्यसले मात्र सहकारी क्षेत्रको योगदानको आंकलन गर्न सकिन्छ ।

शुरुवातदेखि नै निर्वाध ढंगले सहकारी क्षेत्र अगाडी बढ्न पाउने अवस्था राज्यले सृजना गरिदिएको भए आज हाम्रो समाजको स्वरूप नै फरक भैसक्ने थियो । हालको समयमा सरकारले

सहकारी क्षेत्रको संचालनलाई केही सहज बनाउन पहल गरिरहेको कुरा सहज अनुभूति गर्न सकिन्छ । खास गरी २०७२ को संविधान पछि संघीयता कार्यान्वयन गर्ने क्रममा मुलुकमा तीन चरणका निर्वाचनहरू सम्पन्न भए । सोही क्रममा सहकारी क्षेत्रलाई व्यवस्थापन गर्न सहकारी ऐन २०७४ जारी भयो । यो ऐनले प्रदेश ऐन र स्थानीय ऐनहरू बनाउने अवधारणा प्रस्तुत गर्‍यो । सो व्यवस्था अनुसार प्रदेश ऐन र स्थानीय ऐनहरू बने/बन्ने क्रममा छन् । यसरी हेर्दा संघीय रूपमा मुलुकको सहकारी क्षेत्रलाई व्यवस्थापन गर्ने कानुनी व्यवस्था भैसकेको छ । ऐनका केही व्यवस्थाहरूलाई थप स्पष्ट पार्न र ऐनमा 'तोकिए बमोजिम' भनिएका बुँदाहरूलाई थप व्याख्या गर्नको लागि ऐनको विस्तृतीकरणको रूपमा "सहकारी नियमावली २०७५" पनि जारी भैसकेको छ । यी कानुनी व्यवस्थालाई विश्लेषण गर्दा सहकारीको मूल्य मान्यता, वचत तथा निक्षेप सुरक्षणको व्यवस्था, ऋण असुली व्यवस्था (न्यायाधीकरण), स्थिरीकरण कोष, प्रवर्धन कोष लगायतका अन्य कोषहरूको व्यवस्था, उचित करको व्यवस्था, सहकारी एकीकरण, कर्जा सुचना केन्द्रको व्यवस्था, प्रदेश तथा स्थानीय निकायमा छुट्टै डेस्कको व्यवस्था आदिले सहकारी क्षेत्रलाई थप हौसला मिलेको छ ।

अर्कोतिर यस ऐनका बारेमा सहकारी क्षेत्रले केही असहजता महसुस गर्नुपर्ने अवस्थाहरू पनि छन् । सहकारी क्षेत्रले मुलुकको समग्र अर्थतन्त्रमा पारेको सकारात्मक प्रभावको बारेमा, मुलुकको संघीयता कार्यान्वयन गर्ने एउटा मुख्य औजारको रूपमा सहकारी क्षेत्र रहेको बारेमा र प्रत्येक स्थानीय निकायमा आर्थिक समता निर्माण गर्ने औजारको रूपमा सहकारी क्षेत्र रहेको यथार्थको बारेमा ऐनले केही बोलेको छैन । अर्थात् यी तथ्यहरूलाई ऐनले प्रस्ट रूपमा स्विकारेको छैन । यस कदमबाट प्रस्ट हुन्छ की राज्य सहकारी क्षेत्र प्रति ढुक्क हुन सक्ने अवस्थामा छैन, अभैपनि शंकालु नजरले हेरिरहेको छ ।

यी सबै परिस्थितिका बावजुद पनि सहकारी ऐन २०७४ मा केहि आशा लाग्दा बिषय बस्तुहरू पनि समेटिएका छन् । सहकारीका वित्तीय कारोवार सुरक्षित गर्न ऐनमा सुरक्षा व्यवस्था गरिएको छ । त्यस्तै सहकारी क्षेत्रका वित्तीय कारोवारहरूमा एकरूपता कायम गर्न सन्दर्भ व्याजदर र स्प्रेडदर तोक्ने र सो को जानकारी वित्तीय सूचना एकाइमा गराउने लगायतका व्यवस्था गरिएको छ । जसले सहकारीको नियम र कानुन विपरीत कम्पनीको ढाँचामा संस्था संचालन गर्छ, उसलाई कारवाही हुने व्यवस्था छ । सहकारीले सदस्यको हित विपरीत काम गरेमा समस्याग्रस्त संस्था घोषणा गरी कारवाही गर्ने सम्मको अधिकार सो ऐनमा छ ।

तथ्याङ्कहरूको विश्लेषण

मुलुकको आर्थिक, सामाजिक र सांस्कृतिक रुपान्तरण गर्न र जनताको जीवनस्तर उकास्न सहकारी क्षेत्रले पुर्‍याएको योगदानको विश्लेषण सघन रूपले भैरहेको छैन । मानव विकाश सुचांकमा नेपालको HDI मान सन् २०१६ मा ०.५७२, सन् २०१७ मा ०.५७४ र सन् २०१८ मा ०.५७९ रहेको छ । सन् १९९० देखि २०१८ सम्ममा नेपालको HDI मान लगातार बृद्धि हुदै ०.३८० बाट ०.५७९ सम्म पुगेको छ [Human Development Report 2019, UNDP. **Inequalities in Human Development in the 21st Century**, Briefing Note: Nepal] । यो तथ्यांकबाट एकातिर नेपालको सुचांक प्रगती नियमीत रूपमा बढ्दो क्रममा रहेको देखिन्छ भने अर्कोतिर लामो समय सम्म सुधार हुन नसकेको सुचांक वि. सं २०४६ पछि र विशेष गरी वि.सं २०५० (व्यापक रूपमा सहकारी संस्थाहरूको स्थापना भएको कालखण्ड) पछि व्यापक सुधार भई हाल लगभग ५८ प्रतिशत सफलता प्राप्त भएको देखिन्छ । त्यसैले यो प्रगतिमा सहकारी क्षेत्रको पनि योगदान रहेको छ भनी निष्कर्षमा पुग्नलाई कुनै समय लाग्दैन । मानव विकाश सुचांक बृद्धिमा सहकारी क्षेत्रको

योगदानलाई सरकारले सामान्य नजरले हेरिरहेको छ भन्ने बुझाई सहकारीकर्मीको बिचमा छ । किनभने विगतमा सहकारीको विकास र प्रवर्धनमा सरकारले त्यति महत्व दिएको पाइएन । मुलुककै सबै भन्दा ठुलो संगठनको रूपमा विकास भैरहेको सहकारी क्षेत्रले आजसम्म मुलुकमा पुर्‍याएको योगदानको विश्लेषण सही ढंगबाट भैरहेको छैन । त्यसकारण सहकारीको बारेमा मानिसहरुको बुझाई एकै प्रकारको छैन । विगतमा राज्यले पनि १/२ गलत संस्थाहरुले सहकारीको नामबाट गरेका गलत क्रियाकलापलाई सहकारी क्षेत्रको विशेषताको रूपमा बुझिदिएकाले समग्र सहकारी क्षेत्र त्यस अवस्थामा प्रतिरक्षात्मक बन्न पुगेको थियो । त्यसको असर आज पनि सहकारी क्षेत्रले बेहोरिरहेको छ । यो लेख सहकारी क्षेत्रले समाजमा पुर्‍याएको योगदानको विषयमा बौद्धिक वर्गबाट वृहत्/छलफल होस् र यसले निरन्तरता पाओस् भन्ने दिशातर्फ केन्द्रित रहेको छ । त्यसैले यस लेखमा सहकारीको माध्यमबाट आजसम्म प्राप्त गरेका उपलब्धिहरु र आगामी दिनमा आर्थिक समृद्धि र समाज परिवर्तनका लागि गर्न सकिने सम्भावनायुक्त कार्यहरुको बारेमा चर्चा गरिएको छ । जसलाई निम्नानुसार बुँदागत रूपमा प्रस्तुत गरिएको छ ।

क) प्राप्त उपलब्धिहरु

१. करिव दस लाख भन्दा बढी सदस्य भएको मुलुककै सबैभन्दा ठुलो सामाजिक संगठन हो सहकारी संगठन । मुलुकको लोकतान्त्रिक आन्दोलन र सो पछिका नागरिक अधिकार र जनजीविकाका अन्य आन्दोलनहरुमा संगठनको सम्पूर्ण शक्ति अग्र मोर्चामा रही सार्थक उपलब्धिका लागि इमान्दार र लगनशील भै सशक्त ढंगले खटेको कुरा सबैको सामु छर्लङ्ग उपलब्धिका लागि इमान्दार र लगनशील भै सशक्त ढंगले खटेको कुरा सबैको सामु छर्लङ्ग छ । मुलुकको राजनैतिक परिवर्तन र स्थायित्वका लागि यस संगठनले पुर्‍याएको योगदान स्मरणीय छ ।
२. सहकारी भनेको समुदायको ऊर्जा हो । समुदायको हित अनुकूल काम गर्नु नै सहकारीको आधारभूत मान्यता हो । सहकारी संस्थाहरु स्वनियमनमा संचालित हुन्छन् । त्यसैले गर्दा आज मुलुकले सहकारी क्षेत्रलाई पनि विकासको साभेदार मानिरहेको छ । यसको प्रत्यक्ष प्रमाणको रूपमा युवा स्वरोजगार र गरिबी निवारण कोषका कार्यक्रमहरु सञ्चालन गर्न नेपाल सरकारले वित्तीय मध्यस्थकर्ताको रूपमा बैंक तथा सहकारी संस्थालाई जिम्मेवारी दिएको छ । वास्तवमा बैंकहरुमा जनताको स्वामित्व नहुने भएको हुनाले यी कार्यक्रमहरु संचालन गर्न बैंकहरु उपर्युक्त नहुने देखिन्छ । बैंक भन्दा सहकारी संस्थाहरु नै जनताको नजरमा प्रिय हुने भएकाले सो कार्यक्रमहरु सहकारीकै मध्यस्थतामा अगाडी बढ्ने अवस्था छ र आजको व्यवहारले पनि सो कुरा पुष्टि गरिरहेको छ, जुन सहकारी क्षेत्रका लागि सुखद छ । यसरी आज सहकारी क्षेत्र सरकारको गरिबी लक्षित कार्यक्रमहरु जनस्तर सम्म पुर्‍याउने भरपर्दा माध्यम बन्न सकेका छन् ।
३. मुलुकमा वार्षिक रूपमा हुने वित्तीय कारोवारले मुलुकको आर्थिक हैसियतको अवस्थालाई जनाउँछ । कुनै मुलुकको कुल वित्तीय कारोवारले त्यस मुलुकको सरकारी, गैह्र-सरकारी, निजी र वित्तीय क्षेत्रले गरेको वार्षिक कारोवारको कूल अंकलाई जनाउँछ । हाम्रो देशको कूल वित्तीय कारोवारको १९% भार सहकारी क्षेत्रले बहन गरेको छ । यो तथ्यांकले मुलुकको समग्र अर्थतन्त्रमा सहकारी क्षेत्रले पार्ने प्रभावलाई स्पष्ट पार्दछ । सहकारी क्षेत्रको योगदानलाई मुलुकको अर्थतन्त्रबाट हटाई दिने हो भने वार्षिक कारोवार १९% ले खुम्चिने अवस्थामा छ । यसबाट प्रस्ट हुन्छ की सहकारी क्षेत्रको उपस्थितीले राष्ट्रिय अर्थतन्त्रमा सकारात्मक योगदान गरिरहेको छ ।
४. व्यवसाय सृजना गर्नु भनेको रोजगारी सृजना गर्नु हो । व्यवसाय सृजना गर्न श्रम, पुँजी तथा कच्चा पदार्थको आवश्यकता पर्दछ । अब्ज प्रस्ट सँग भन्ने हो भने एउटा कुशल व्यवसाय

संचालन गर्न 5M अर्थात Money, Manpower, Machines, Materials र Management को आवश्यकता पर्दछ (सहकारी सिद्धान्त र प्रयोग, केशव बडाल, नवयुग सहकारी प्रेस, पाचौ संस्करण, २०६४ असोज, पेज १३७) । सहकारी पनि व्यवसाय हो । त्यसैले यी संस्थाहरूले पनि यी 5M को व्यवस्थापन गरेका हुन्छन् । आज लगभग ६० हजार भन्दा बढी मानिसहरूले यस क्षेत्रबाट प्रत्यक्ष रोजगारी पाएका छन् । साथै सदस्यहरूलाई व्यवसाय संचालन गर्न श्रोत जुटाई दिने कार्य पनि सहकारीले गर्दछ । यसरी सहकारी संस्थाहरू प्रत्यक्ष रूपमा रोजगारी सृजना गर्ने रोजगारदाता बनेका छन् र आफ्ना सदस्यहरूलाई श्रोत व्यवस्थापन गरिदिएर स्व-रोजगार बनाउने कार्य गरिरहेका छन् । यो सहकारी क्षेत्रको उपलब्धि हो ।

ख) सम्भावनायुक्त कार्यहरूको खोजी

१. सहकारी ऐन २०७४ ले सहकारी संस्थाको कार्यक्षेत्र एक स्थानीय निकाय मात्र हुने व्यवस्था गरेको छ । सहकारीताको मूल्य, मान्यता र सिद्धान्त अनुरूप सहकारी संस्थाहरू संचालन गरेर पिछडिएका, गरिव, सिमान्तकृत, वित्तीय पहुँच नपुगेका, महिला, युवाहरूको सहभागिता बढि गरी उनीहरूको सीप र क्षमतामा अभिवृद्धि गराई नवीन प्रविधि र उद्यमशीलताका माध्यमबाट आर्थिक सवलीकरण गर्ने सहकारीको घोषित कार्यक्रम हो । सो अनुसार सहकारी संस्थाहरू संचालन हुँदै आजका दिनसम्म आइपुग्दा सदस्यहरूको सामाजिक र आर्थिक स्थिति केही हदसम्म सुधै गैरहेको देखिन्छ । यो क्रम भोलिका दिनमा अझ बढ्न सक्ने अवस्था छ । हाल सबै ७५३ वटा स्थानीय निकायहरूमा सहकारी संस्थाहरू संचालनमा रहेको हुनाले भोलिका दिनमा मुलुकभर आर्थिक रूपले समतामुलक समाजको निर्माण हुन सक्ने कुरामा आशा एवं विश्वास गर्न सकिन्छ, जुन हरेक संघीय गणतान्त्रिक मुलुकको मुख्य उद्देश्य पनि हो । दोश्रो सहकारी महासम्मेलन २०७४ को आयोजना कृषि, भूमिव्यवस्था तथा सहकारी मन्त्रालय र राष्ट्रिय सहकारी महासंघले संयुक्त रूपमा गरेको र सो महासम्मेलनको मूल सन्देश “समृद्धिका लागि सहकारी” रहेकोले पनि सहकारी संस्थाबाट समृद्धि सम्भव छ भन्ने ठहर नेपाल सरकारको रहेको बुझिन्छ । यस्तो बुझाई रहेको हुनाले आर्थिक समृद्धिको अभियानको नेतृत्व अग्रपंक्तिबाट गर्ने संकल्प सहकारी क्षेत्रले सो महासम्मेलनका क्रममा गरेको छ । समृद्धिको अभियानको सफल नेतृत्व गरेर समतामुलक समाजको निर्माण गरी गणतान्त्रिक अभियानलाई साकार बनाउन सकिन्छ । यस अर्थमा सहकारी संस्थाहरू गणतान्त्रिक अभियानका सार्थक औजारहरू हुन सक्नेछन् ।
२. संघीयताको आकर्षण भनेकै जनस्तरमा नै आर्थिक समृद्धि प्राप्त गर्नु हो । संघीयता त्यतिबेला सफल मानिन्छ, जतिबेला आर्थिक समृद्धि जनस्तरमा पुग्दछ । विश्वमा चलेका आर्थिक समृद्धिका मोडेलहरू मध्ये नेपालले अवलम्बन गरेका मोडेलहरूको विश्लेषण गर्दा सहकारी नै भरपर्दो मोडेल हो र यसको आकार पनि उल्लेख्य छ । यसरी हेर्दा सहकारी क्षेत्र मुलुकको संघीयता सफल बनाउने महत्वपूर्ण साधन बन्न सक्ने देखिन्छ ।
३. नेपाल सरकारका बिभिन्न कार्यक्रमहरू जस्तै सामाजिक/सांस्कृतिक शसक्तीकरण, आर्थिक रुपान्तरण, दिगो विकासको स्थानीयकरण, उद्यमशीलता विकास, सामाजिक सुरक्षा, विशेष क्षेत्र पहिचान तथा परिचालन, सामाजिक क्षेत्रको नेतृत्व आदि जस्ता क्षेत्रहरूमा जनस्तरबाट कार्य प्रारम्भ गर्न र उपलब्धिलाई संस्थागत गर्न स्थानीय स्तरमा नेपाल सरकारको आधिकारिक निकायहरूको अभाव छ । स्थानीय सरकारका आफ्नै दायित्वहरू रहेको र नियमन र नियन्त्रण भन्दा बाहेक स्थानीय निकायबाट हाल केही हुन सक्ने अवस्था नरहेको हुनाले यी कार्यक्रमहरूको कार्यन्वयनको लागि नेपाल सरकारले कुनै नयाँ व्यवस्थापन गर्नुपर्ने हुन्छ । सहकारी संस्थाहरूलाई

यी कार्यहरूको जिम्मेवारी दिने हो भने एकातिर व्यवस्थापकीय खर्च घट्नेछ भने अर्कोतर्फ आम समुदायको निगरानीमा सहज ढंगले काम सम्पन्न हुन्छ । यस सन्दर्भमा हाल सहकारी जत्तिको भरपर्दो निकायको अभाव रहेको र नयाँ निकायको निर्माण गर्दा खर्च अधिक बढ्ने अवस्था रहेकोले हालको लागि सहकारी भन्दा उत्तम विकल्प नरहेको प्रस्टै छ । यस्तो अवस्थामा नेपाल सरकारले सहकारी क्षेत्रलाई उपयोग गरी कार्य सम्पादन गर्न वाञ्छनीय देखिन्छ । यसरी हेर्दा सहकारी संस्थाहरू सामाजिक, सांस्कृतिक रूपान्तरणका दिगो र वास्तविक औजारहरू बन्न सक्ने अवस्था पनि देखिन्छ ।

४. राष्ट्रिय प्राथमिकता प्राप्त क्षेत्रहरू जस्तै शिक्षा, स्वास्थ्य, ऊर्जा, कृषि, खाद्य, वातावरण, जलवायु, उद्योग, कल-कारखाना, पर्यटन, आवास आदिमा सहकारी क्षेत्रको लगानीमा राष्ट्रिय गौरवका परियोजनाहरूको निर्माण सम्पन्न गरी सहकारी क्षेत्रकै नियन्त्रण रहने गरी संचालन गर्न सकिन्छ । सात वटै प्रदेशमा यसरी एक एक वटा परियोजना संचालन गर्न सकेमा रोजगारीको अवसर सृजना हुने र राष्ट्रिय अर्थतन्त्रमा टेवा पुग्नेछ । वास्तवमा सहकारी क्षेत्रसँग यस्ता परियोजनामा लगानी गर्न पुँजि र संचालन गर्न मानव संसाधन (व्यवस्थापकिय) को सामर्थ्य रहेकोले सहकारी क्षेत्र औद्योगिकरणको साभेदार बन्न सक्ने अवस्था देखिन्छ ।
५. संयुक्त राष्ट्र संघ द्वारा घोषित दिगो विकास लक्ष्य २०३० ले लिएका १७ वटा मुख्य लक्ष्यहरू मध्ये अधिकांश लक्ष्यहरू सहकारी क्षेत्रको समन्वयमा सहजै हासिल गर्न सकिने देखिन्छ । दोश्रो सहकारी महासम्मेलन २०७४ ले १० बुदे घोषणा पत्र जारी गरेको छ । घोषणापत्रमा दिगो विकास लक्ष्य २०३० लाई हासिल गर्न सरकार, निजी र सहकारी क्षेत्र समेतको तिन खम्बे अर्थनीतिलाई अवलम्बन गरी उत्पादन, सेवा र वितरणका माध्यमबाट आय-आर्जनको व्यवस्थापन गर्ने र रोजगारी सृजना गरेर गरिवी न्यूनिकरण गर्दै समाजवाद उन्मुख अर्थतन्त्र निर्माणमा प्रतिबद्धता व्यक्त गरिएको छ (सहकारिता, त्रैमासिक, वर्ष ७, अंक १२, बैशाख-असार २०७५, पेज ४) । तर सहकारी क्षेत्रको अभावमा भने यी लक्ष्यहरू सहजै पुरा हुदैनन् । साथै दिगो विकास लक्ष्य प्राप्तिका लागि सहकारी क्षेत्र नेपाल सरकारसँग साभेदारको हैसियतले क्रियाशिल हुन सरकारको आधिकारिक निर्णयको प्रतिक्रिया छ । यो अवसरलाई उपयोग गर्न सकेमा समृद्धिको यात्रा केही छोटो हुनेछ । तसर्थ दिगो विकास लक्ष्य २०३० प्राप्तिका लागि सहकारी क्षेत्रसँग सहकार्यका निम्ति नीतिगत रूपमा मार्गनिर्देश गर्दै नेपाल सरकार अगाडी बढ्न सक्ने अवस्था रहेकोले सहकारी क्षेत्र दिगो विकास लक्ष्य प्राप्तिका लागि सारथी बन्न सक्ने अवस्था देखिन्छ ।
६. हाम्रो देश कृषिप्रधान मुलुक भएपनि ६६% जनसंख्या मात्र कृषिमा आधारित छ । परम्परागत कृषि प्रणाली हाम्रो समृद्धिको बाधक बनिरहेको छ । ६६% जनसंख्याले गरेको उत्पादनले १००% जनसंख्यालाई वर्षभरि खान नपुग्नु स्वाभाविक छ । त्यसैले मुलुकमा आयात बढ्दो क्रममा छ । बढ्दो आयातलाई प्रतिस्थापन गर्न उत्पादन र उत्पादकत्वमा बृद्धि गर्नुपर्दछ । अहिले सम्म उन्नत प्रविधिका नाममा सरकारले गरेका उत्पादन बृद्धिका प्रयासहरू निरर्थक सावित भएका छन् । यस कार्यमा सहकारी क्षेत्रलाई उपयोग गर्न सकेमा उत्पादन बृद्धि भै बढ्दो आयातलाई प्रतिस्थापन गर्न सकिन्छ । उदाहरणको रूपमा आज कतिपय विषयगत कृषि सहकारी संस्थाहरूले आफ्ना उत्पादनहरू विदेशमा निर्यात गरिरहेका छन् । यसरी कृषिमा आत्मनिर्भरता कायम गर्न सकिने अवस्था छ । यसरी मुलुकको कृषिजन्य आयातलाई प्रतिस्थापन गरी निर्यात प्रबर्धन गर्न सक्ने अवस्था देखिन्छ ।

७. हाम्रो समृद्धिको बाधक बनिरहेको अर्को पक्ष हो परनिर्भरता र बेरोजगारी समस्या । जबसम्म हामीले सहकारी क्षेत्रलाई व्यवसायिक बनाउदै लगानी संरचनामा परिवर्तन गर्दैनौं, तबसम्म हामी आत्मनिर्भर बन्न सक्दैनौं । नितीगत रूपमा सहकारी क्षेत्रभित्र अन्तरलगानी गर्न सकिने व्यवस्था गरी विषयगत सहकारी संस्थाहरूलाई आ-आफ्नो क्षेत्रको उत्पादनमा प्रोत्साहित गर्न सक्ने हो भने प्रगतिशील आर्थिक संरचनाको जग बस्छ । यसो गर्दा उद्यमशीलता र रोजगारी सृजना हुन्छ । पर्याप्त मात्रामा उद्यमशीलता र रोजगारी सृजना गर्न कृषि, पर्यटन र उर्जामा लगानि गर्नुपर्दछ । त्यसैले यी विषयका सहकारीहरूको स्थापना र संचालनमा सरकारले बिशेष व्यवस्था गरी उत्पादनमा ध्यान पुऱ्याउने हो भने परनिर्भरता हट्दै जाने र बेरोजगारी समस्या क्रमशः हल हुदै जाने देखिन्छ । त्यसैले सहकारीमा लगानिका क्षेत्रहरू किटान गरी उत्पादन सुनिश्चित गर्नु आजको राष्ट्रिय आवश्यकता हो । यो आवश्यकतालाई मनन गरी परनिर्भरता र बेरोजगारी समस्यालाई हल गर्न सहकारी क्षेत्र कोशेढुंगा सावित हुन सक्ने अवस्था छ ।
१०. कृषक, घरेलु तथा साना उद्यमी र लघु उद्यमीलाई तालिम/प्रशिक्षणद्वारा व्यवसायिक रूपमा उत्पादन गर्न आवश्यक पर्ने साधन स्रोतको व्यवस्थापन गरिदिएर व्यवसायिक बनाउने र सो व्यवसायबाट उत्पादन हुने उपज तथा उपभोग्य वस्तुको एकिकृत रूपमा भण्डारण र बजारीकरण गर्नको लागि संकलन केन्द्र निर्माण गरी संचालनमा ल्याउने कार्यमा राज्यको उपस्थिती आवश्यक छ । यसो गर्न सकेमा स्थानीय बजारको प्रबर्धन हुन्छ । व्यवसायीहरू उत्साहित हुन्छन् र उनीहरूको आत्मनिर्भरता बृद्धि हुन्छ, जसले समृद्धिको यात्रा तय गर्ने सार्थक बाटो तयार गर्दछ ।
११. सहकारी संस्थालाई बेरोजगारी समस्या हल गर्ने माध्यमको रूपमा विकास गर्न राज्यले विशेष कार्यक्रम चलाउनु पर्ने हुन्छ । स्वरोजगारीको लागि उद्यमशीलता भन्ने नाराका साथ विदेशिएका युवालाई निशुल्क व्यावसायिक तालिम प्रदान गरी उद्यम संचालनको लागि आवश्यक पर्ने न्यूनतम साधन र स्रोतको व्यवस्था गर्न सके रोजगारीको लागि विदेशिएका युवाहरूलाई स्वदेशमा नै राख्न सकिन्छ ।
१२. आजको युग प्रतिस्पर्धाको युग हो । आजको बजारमा तीव्र प्रतिस्पर्धा छ । उपभोक्ताको छनौटमा वस्तु परेन भने उत्पादन बिक्री हुदैन । आजको युग लोकतन्त्रको युग हो । त्यसैले कसैलाई बाध्य बनाएर उपभोग गराउन पनि सकिदैन वा आजको युगमा करकापमा व्यापार चल्दैन । तसर्थ हाम्रा उत्पादनहरू हर हिसाबले प्रतिस्पर्धामा खरो उत्रन सक्नु पर्दछ । उपभोक्तालाई आकर्षित गर्न वस्तुको गुणस्तर र उत्पादन लागत मूल्यमा ध्यान दिनु पर्दछ । यो कार्य ठुला उत्पादन गृहले मात्र गर्न सक्छन् । साना उत्पादन गृहसँग सीमित पुँजी हुने भएकाले उपभोक्ता आकर्षित गर्न सक्ने अवस्था छैन । सहकारी संजालको माध्यमबाट संयुक्त रूपमा लगानि गरी त्यस्तो उत्पादन गृह निर्माण गर्ने अवस्था कानुनी रूपमा विद्यमान रहेकोले यो सम्भावनालाई नकार्न सकिदैन । यो अवसरलाई उपयोग गर्न सकेमा समृद्धिको यात्रामा सहकारी क्षेत्र भरपर्दो माध्यम बन्न सक्नेछ ।
१३. एकल व्यवसायमा भन्दा सहकारी व्यवसायमा धेरै व्यक्ति, समुदाय र क्षेत्रको अनुभव सजिलै प्राप्त हुन्छ । देशमा ठुला कारोवार गर्ने व्यवसायीको संख्या अत्यन्त सानो छ । सहरमा ठुला उद्योगीको संख्या पनि थोरै छ । गाउँमा ठुला जमिन्दार र भूमिपतिहरूको संख्या पनि सानो छ । गाउँमा भूमिहीन किसान, गरीब किसान र मध्यम किसानहरूको संख्या अत्यन्त ठुलो छ । सहर बजारमा पनि मजदुर, ज्यालादारी, स-साना पसलेहरू, कुटिर उद्योग संचालकहरू, निम्न वैतनिक

कर्मचारीहरू, सडक व्यापारीहरूको संख्या निकै ठुलो छ । यी सबैको संख्या जोड्दा देशको ७५% जनसंख्या हुन आउँछ । यो नै देशको मूल र भरपट्टो जनशक्ति हो । यो समुदायको दीगो विकासका लागि योजनाबद्ध र सचेत ढंगले सहकारी व्यवसाय संचालन गर्न सकेमा सामाजिक न्याय र उत्पादकत्व वृद्धि गर्न महत्वपूर्ण योगदान पुग्दछ । यो समुदायलाई सहकारी क्षेत्रको आर्थिक संरचना भित्रबाट समृद्ध बनाउन सकिन्छ । अझ सहकारीलाई राज्यबाट प्रोत्साहन सहित थप पूर्वाधारको व्यवस्था गरिदिने हो भने गरीबी निवारण गर्न, रोजगारी सृजना गर्न, आयात प्रतिस्थापन गर्न, निर्यात प्रवर्धन गर्न तथा प्रतिव्यक्ति आयमा पनि बृद्धि गर्न सकिन्छ ।

१४. नेपाल कृषि प्रधान देश हो । बहुसंख्यक मानिसहरू आज पनि कृषिमा आधारित छन् । कृषिमा कैयौं प्रयत्नहरू गरिए तर आसातित उपलब्धी हुन सकेन । उन्नत मल, बिउ, प्रविधिको प्रयोग गरियो, तर आज पनि समस्याहरू जस्ताको त्यस्तै छन् । भारत लगायत तेस्रो मुलुकबाट खाद्यान्न आयात गर्नुपर्छ । हुम्ला, जुम्लामा त अन्नको समस्या वर्षमा ८ महिना भन्दा बढी समय पर्छ । खाद्यान्न आयात गर्ने संस्कृतिले हामी थला परिसकेका छौ । किनेर मात्र गुजारा हुने हाम्रो संस्कारले अब त खाद्य उत्पादन गर्ने भन्दा किनी खाने कार्यलाई प्राथमिकता दिन थाल्यौ । यसको कारण उत्पादन हुने खाद्यको बिक्रय मूल्यको सुनिश्चितता नहुने, निजी स्तरबाट कृषकका अतिरिक्त खाद्यान्न खरिद गरी भण्डारण गर्ने तर आफ्नो अनुकुलतालाई हेरेर मात्र विक्री वितरण गर्न राज्यले छुट दिएका कारणले पनि हो । कृषकका अतिरिक्त उत्पादनहरू उचित लाभांश सहित खरिद गरिदिने तथा उसले खरिद गर्नुपर्ने अन्य आवश्यक वस्तुहरू उचित मुल्यमा खरिद गर्न पाउने गरी उपभोक्ता सहकारीहरू संचालन गर्नुपर्दछ । कृषकलाई उत्पादनप्रति उत्साहित गराउन फसल लगाउने समयमा नै फसलको मूल्य निर्धारण गरिदिनु पर्दछ, जसले उत्पादनको लागत र प्रतिफलको निर्धारण गर्न सकोस् । कृषकहरूले नयाँ नयाँ कृषि प्रविधिको उपयोग यी सहकारीहरू मार्फत गर्न सक्ने गरी व्यवस्थापन गर्नुपर्छ । यसो गर्दा उत्पादनमा आश्चर्यजनक प्रगति हुन्छ । यही मोडेलमा काम गरेर चिनले आजको प्रगति गर्न सकेको हो ।

१६. सहकार्य बिना सहकारीको जन्म हुन सक्दैन । सहकारी दर्शनले मानव बिच भेदभाव गर्दैन । सहकारी दर्शन र सिद्धान्तले कुनै जात, भाषा, धर्म, लिङ्ग, बर्ण, भुगोल, राजनैतिक बिचारका आधारमा बिभेद गर्दैन । समाजको आर्थिक, सामाजिक, सांस्कृतिक विकासको लागि “सबैको लागि एक र एकका लागि सबै” भन्ने आदर्शवान् सिद्धान्तलाई मूल मन्त्र मानी सहकारी संस्थाहरू संचालन भएका छन् । सहकारीको निर्देशक सिद्धान्त यही नै हो । सामाजिक सदभावको यस्तो अनुपम नमुना सहकारी क्षेत्र क्रियाशील रहेको हाम्रो मुलुक फेरि पनि विकाशको सन्दर्भमा दिशाविहीन बनिरहेको छ । राज्यले सही ढंगले यस क्षेत्रको अभिभावकत्व ग्रहण गरेमा सहकारी क्षेत्रको माध्यमबाट कृषि लगायत धेरै क्षेत्रमा हामी आत्मनिर्भर बन्न सक्ने मात्र नभई समृद्धिको शिखरमा पुग्न पनि समय लाग्दैन । उदाहरणको लागि हरेक स्थानीय निकायमा १/१ वटा कृषि सहकारी संस्थाहरू (विषयगत रूपमा १ भन्दा बढी नहुने गरी) स्थापना गर्ने, प्रत्येक किसान त्यस्तो कृषि सहकारी संस्थामा अनिवार्य सदस्य बन्नु पर्ने, राज्यले व्यक्ति तथा निजी कृषि फर्म/कम्पनिलाई दिने अनुदानहरू कटौती गरी अबदेखि अनिवार्य रूपमा त्यस्ता कृषि सहकारी संस्थाहरूलाई मात्र दिने; राज्यले किसानलाई आवश्यक पर्ने मल, बिउ, औजारहरूको व्यवस्थापन गर्ने र कृषि सहकारी संस्था मार्फत ती सामग्रीहरूको विक्री वितरणको व्यवस्थापन गर्ने (व्यवसायीलाई नदिने); सहकारीकै तर्फबाट सरल मूल्यमा कृषकलाई आवश्यक ऋणको

व्यवस्थापन गर्ने; कृषकलाई आवश्यक पर्ने उन्नत मल, बिउ, प्रविधि र तालिम आफ्नै सहकारीमा उपलब्ध हुने; कृषकलाई फसल लगाउने समयमा नै उत्पादन हुने फसलको मूल्य तोकिदिने; कृषकका सबै प्रकारका उत्पादनहरूको खरिद बिक्रिमा निजी व्यवसायीहरूलाई प्रतिबन्ध गरी सहकारीकै क्षेत्रबाट बजारीकरणको निश्चितता गरिदिने, कृषि सहकारी संस्थाले किसानबाट खरिद गरेका कृषि उपजहरूको निर्वाध रूपले निर्यात गर्न सरकारले प्रवन्ध मिलाउने । समग्रमा निजी क्षेत्रको संलग्नता नरहने गरी र कृषि संग सम्बन्धित सबै कार्यहरू कृषि सहकारी संस्थाबाट मात्र गर्न पाइने गरी कानुन निर्माण गरेर कृषि सहकारी संस्थाहरू संचालन गर्ने हो भने हामीले खोजेको कृषिमा आत्मनिर्भरता सहजै प्राप्त हुन्छ । यसरी नै पर्यटनको क्षेत्रमा, उद्योगको क्षेत्रमा, व्यवसायको क्षेत्रमा र अन्य क्षेत्रहरूमा पनि विषयगत सहकारीहरू संचालन गरेर अगाडी बढ्न सकेमा सहकारीकै क्षेत्रबाट मुलुको कायापलट हुने कुरामा कुनै द्विविधा रहदैन ।

निष्कर्ष

सहकारी क्षेत्रको माध्यमबाट संसारका धेरै मुलुकहरू समृद्ध भएका छन् । हामीलाई पनि समृद्धि आवश्यक छ । यसलाई अभियानको रूपमा सही ढंगले संचालन गर्न सकेमा सफलता प्राप्त गर्ने कुरामा दुईमत रहदैन । तर राज्यले यस क्षेत्रलाई सधैभरी शंकाको घेराभित्र राख्नु हुदैन । यदी शंकाको घेराभित्र राखिरहने हो भने यसबाट सफलता प्राप्त गर्न सकिदैन । यसो भन्दैमा अनुगमन/नियमन नै नगर्ने भन्ने प्रश्न आउदैन । नीति र विधिमा सहकारी संस्थालाई संचालन गराउन राज्यले पनि संयन्त्र निर्माण गर्नुपर्दछ र कडाइका साथ अनुगमन गर्नुपर्दछ । अझ राज्यले सहकारी क्षेत्रलाई रचनात्मक ढंगले उपयोग गर्दै समृद्धिको मार्गचित्र तय गर्नुपर्दछ । सहकारी संस्थाहरू पनि आफ्ना अनुभवहरूलाई समेट्दै प्रचलित ऐन, कानुन र विधानको परिधि भित्र रहेर नौला प्रयोगहरू गर्दै सदस्यहरूलाई बढी भन्दा बढी प्रतिफल दिने, उनीहरूका समस्यामा सहयोगी बन्ने, सदस्यहरूका आर्थिक, सामाजिक गतिविधीहरूमा केन्द्रित हुने ढंगले संचालन गर्नुपर्छ भन्ने बुझाइलाई नै परिपक्व बनाउदै लानु पर्दछ । मुलुकका सबै ७७ जिल्लामा सहकारीको संजाल निर्माण गरी सहकारीलाई पूर्ण रूपमा नियमन र नियन्त्रण गर्ने दायित्व बोध राज्यले गर्ने, सहकारी संचालन सम्बन्धि न्यूनतम मापदण्ड पुरा गरेका व्यक्तिले मात्र संचालकको हैसियतले प्रचलित ऐन, कानुन र विधानको परिधि भित्र रहेर सहकारी संचालन गरेमा सहकारी क्षेत्रको माध्यमबाट सामाजिक र आर्थिक रूपले समृद्ध आधुनिक नेपाल निर्माणको सपना पूरा हुनेछ ।

सन्दर्भसूची

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तेजप्रसाद आचार्य*

सार

नेपालको बस्तुगत व्यापार तर्फ निर्यातको तुलनामा आयातको मात्रा बढिरहेको छ । तिव्र गतिमा बढिरहेको व्यापार असन्तुलन (घाटा) का निमित्त आवश्यक पर्ने विदेशी मुद्रा परिपूर्ति गर्न विप्रेषणले पुर्‍याएको योगदानको अवस्था के कस्तो छ भनेर यो अध्ययन गरिएको छ । विभिन्न संस्थाहरूबाट प्रकाशित द्वितीय स्रोतका तथ्याङ्कमा आधारित भएर औषत,सह-सम्बन्ध, प्रतिशत जस्ता औजारहरू प्रयोग गरिएका छन् । अध्ययनमा मुख्यतः विश्व आर्थिक वृद्धिदरको अवस्था, नेपालको निर्यात तथा आयातको अवस्था र व्यापार घाटामा विप्रेषणले खेलेको भूमिका वारे चर्चा गरिएको छ । आर्थिक वृद्धिदर विश्व अर्थतन्त्रको भन्दा विकसित राष्ट्रमा कम भएको तर उदीयमान एवं न्यून आय भएका देशहरूको बढी भएको पाइएको छ । आर्थिक वर्ष २०७५/०७६ मा आयात-निर्यात अनुपात १४.६१:१ रहेको र व्यापार घाटाबाट उत्पन्न भूक्तानी असन्तुलनको ६६.१४% विप्रेषणबाट योगदान रहेको तथ्याङ्कले देखाउँछ ।

मुख्य शब्दावली : आर्थिक वृद्धिदर, आयात, निर्यात, व्यापारघाटा, विप्रेषण

पृष्ठभूमि

अहिलेको युगमा धेरै देशका अर्थतन्त्र वस्तु तथा सेवाको निर्यात तथा आयातमा निर्भर छन् । जुन देशमा जुन वस्तु तथा सेवाको उपलब्धता अपर्याप्त छ त्यो विदेशबाट आयात गरिन्छ भने आफ्नो देशको उत्पादन विदेशबाट माग भएमा निर्यात गरिन्छ । यही आयात र निर्यातको अन्तरले व्यापार असन्तुलन सिर्जना गर्दछ । आयात भन्दा निर्यात बढी गर्न सकियो भने व्यापारबाट बचत (Trade Surplus) हुन जान्छ भन्ने निर्यातभन्दा आयात बढि गरिएमा व्यापार घाटा (Trade Deficit) हुन जान्छ । विकसित प्रविधिको प्रयोग गरी प्रतिस्पर्धात्मक क्षमतामा सुधार गरी उत्पादन लागत कम गरेर स्वदेशी उत्पादनको माग विदेशमा बढाउन सकिन्छ (आचार्य, २०१९) । व्यवसायिक क्षेत्रको विकासले दिगो आर्थिक वृद्धि, रोजगारीको सिर्जना, वैदेशिक मुद्राको आर्जन तथा कर राजस्वमा वृद्धि हुन जान्छ (घिमिरे, २०१६) । नेपालले वि.सं. २०४७ पछि अपनाएको उदार आर्थिक नीतिले व्यापार घाटा बढाएको छ (भट्ट, २०१३) । आ.व. २०४६/०४७ मा कुल आयातको ४६.८% निर्यात (बजेट २०४७/०४८) थियो भने आ.व. २०७५/०७६ मा आइपुग्दा उक्त दर घटेर ६.८५% (ने.रा.बै प्रतिवेदन, २०७६) मा सिमित भएको छ ।

वैदेशिक रोजगारीमा जाने नेपालीको संख्या आ.व. २०४७/०४८ ताका १०,००० (भट्ट, २०१३) थियो भने आ.व.२०६३/०६४ देखि २०७४/०७५ सम्म यो संख्या बढेर

* लेखक आचार्य व्यवस्थापन विभाग दमक बहुमुखी क्याम्पसका उपप्राध्यापक हुनुहुन्छ ।

४३,६५,४१५ (आर्थिक सर्वेक्षण, २०७५/०७६) पुगेको छ । कुल गार्हस्थ उत्पादन (GDP) मा विप्रेषण (Remittance) को योगदान आ.व. २०४७/०४८ मा २% (भट्ट, २०१३) को हाराहारीमा थियो भने आ.व. २०७५/०७६ मा यो योगदान बढेर २५.२३% (आर्थिक सर्वेक्षण २०७५/०७६) पुगेको छ । विप्रेषणले ग्रामिण क्षेत्रको बसोवास घटाई शहरी क्षेत्रतर्फ बसाई सराई बढाएको छ र गाउँबाट हुने उत्पादन घटाई सुविधाजनक वस्तुको उपयोग बढाएको छ (गौडेल, २०१६) । नेपालको जीवनस्तर मापन सर्वेक्षण २०६८ को प्रतिवेदनले ३१% परिवार विप्रेषणको आयबाट आश्रित छन् र विप्रेषणबाट प्राप्त रकम मध्ये ७९% रकम घरायसी खर्चमा, ७% ऋण तिर्न र बाँकी १४% व्यवसायिक क्षेत्रमा लगानी भएको देखाउँछ ।

सिलवाल (२००८) ले 'नेपालको व्यापार घाटाका कारणहरू' शीर्षकमा गर्नु भएको अध्ययनबाट नेपालले उदार अर्थ नीति अपनाए पछि व्यापार घाटा ठूलो मात्रामा बढेको छ । प्रतिस्पर्धात्मक वातावरण नहुनु, राजनैतिक स्थायित्व नहुनु, औद्योगिक लगानी कम हुनु, भू-परीवेष्ठित राष्ट्र भएका कारण यातायात खर्च महङ्गो पर्नु नै व्यापार घाटा बढ्नुका कारण औल्याउनु भएको छ ।

भट्ट, २०१३ को 'नेपालमा विप्रेषण र व्यापार घाटाको अवस्था' शीर्षकमा गरिएको अध्ययन अनुसार विप्रेषण विदेशी मुद्रा आर्जनको प्रमुख स्रोत बनेको छ । नेपालका श्रम गर्ने उमेरका युवा विदेशिदा नेपालमा कृषि कार्यका लागि श्रमिक अभाव भएको छ भने स्थानीय उत्पादनका वस्तुभन्दा विदेशी उत्पादनका वस्तुको माग बढाएको छ । विप्रेषण बढेसँगै देशको आयात र व्यापार घाटा बढाएको छ ।

यसै सन्दर्भमा व्यापार घाटा र विप्रेषणको अवस्था पछिल्लो अवधिमा के कस्तो छ भन्ने विषयमा विश्लेषण गर्न यो अध्ययन गरिएको छ ।

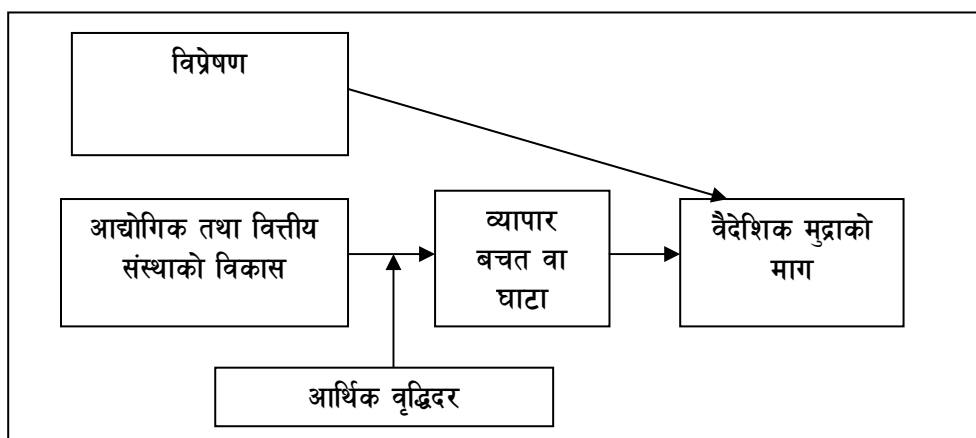
अध्ययनको उद्देश्य

नेपाल लगायत विश्व परिवेशको आर्थिक वृद्धिदरको अवस्था, नेपालको निर्यात र आयातको अवस्था, मुख्यतः निर्यात र आयात गरिने वस्तु र रकम, व्यापार असन्तुलनको अवस्था व्यापार घाटा हुँदा आवश्यक पर्ने विदेशी मुद्रामध्ये विप्रेषणको योगदान के कस्तो छ भन्ने विषय वस्तु वारे यहाँ अध्ययन गर्न खोजिएको छ । अध्ययनको मुख्य उद्देश्य यस प्रकार रहेको छः

- नेपालको आयात निर्यातको अवस्था चित्रण गर्ने
- नेपालको व्यापार असन्तुलनमा विप्रेषणको योगदानको विवेचना गर्ने ।

तथ्याङ्क र विधिको छनौट

यो अध्ययन विवरणात्मक प्रकृतिको छ । यस अध्ययनमा निम्न चरहरूको सम्बन्ध देखाइएको छ ।



तथ्याङ्कको संकलन आर्थिक सर्वेक्षण, औद्योगिक सर्वेक्षण, नेपाल राष्ट्र बैंकका प्रतिवेदन, नेपालका बजेट जस्ता द्वितीय स्रोतका तथ्याङ्कमा आधारित छ । जिम्मेवार सरकारी निकायबाट प्रकाशित प्रतिवेदनका विश्वसनीयतामा यो अध्ययन गरिएको छ । तथ्याङ्कको विश्लेषण गर्न आवश्यकता अनुसार औषत सह-सम्बन्ध, प्रतिशत, ग्राफको प्रयोग गरिएको छ ।

परिणामको विश्लेषण

नेपाल लगायत विश्व अर्थतन्त्रको आर्थिक वृद्धिदरको अवस्था

कुनै पनि देशको आर्थिक अवस्थाको सवलीकरण के कस्तो हुँदै छ भनेर मापन गर्न आर्थिक वृद्धिदरको प्रयोग गरिन्छ । अघिल्लो वर्षभन्दा पछिल्लो वर्ष कुनै पनि देशले जे जति वस्तुको उत्पादन तथा सेवाको सृजना वृद्धि गर्दछ, त्यसैका आधारमा आर्थिक वृद्धिदर तय हुन्छ । सबै देशका प्रयत्न आर्थिक वृद्धिदर उच्च पार्ने नै हुन्छ तर त्यस देशमा उत्पादनशील क्षेत्रमा गरिएको लगानी, वस्तुको उत्पादन र सेवाको सृजना जुन देशले बढाउन सक्दछ त्यहि देशको अर्थिक वृद्धिदर उच्च हुन्छ । आर्थिक वृद्धिदरले अर्थतन्त्रको समृद्धिको अवस्था झल्काउँछ ।

तालिका-१ आर्थिक वृद्धिदरको अवस्था

(प्रतिशतमा)

वर्ष	२०१५	२०१६	२०१७	२०१८
विश्व अर्थतन्त्र	३.४	३.४	३.८	३.६
विकसित अर्थतन्त्र	२.३	१.७	२.४	२.२
उदीयमान तथा विकासशील अर्थतन्त्र	४.३	४.६	४.८	४.५
न्यून आय भएका विकासशील अर्थतन्त्र	४.६	३.६	४.९	४.६
ठूला अर्थतन्त्र भएका देश:				
चीन	६.९	६.७	६.८	६.६
संयुक्त राज्य अमेरिका	३.२	२	३.६	४.८
सार्क राष्ट्र:				

भारत	८	८.२	७.२	७.१
वंगलादेश	६.८	७.२	७.६	७.७
भुटान	६.२	७.३	७.४	५.८
मालदिभ्स	२.९	७.३	७.४	५.८
नेपाल	३.३	०.६	७.९	६.३
पाकिस्तान	४.१	४.६	५.४	५.२
श्रीलंका	५	४.५	३.३	३
अफगानिस्तान	१	२.२	२.७	२.३

Source: World Economic Outlook of IMF, 2019

विश्व अर्थतन्त्रको तुलनामा विकसित देशका आर्थिक वृद्धिदर न्यून रहेको तर उदीयमान एवं न्यून आय भएका देशको आर्थिक वृद्धिदर उच्च रहेको देखिन्छ । आर्थिक वृद्धिदरका दृष्टिले भारतले चीनलाई उल्लिखेको देखिन्छ । दुई ठूला अर्थतन्त्र भएका देश चीन र अमेरिकामध्ये चीनको आर्थिक वृद्धिदरले अमेरिकालाई पछि पारेको छ । सार्क राष्ट्रमध्ये अफगानिस्तान बाहेक अन्य राष्ट्रको औषत आर्थिक वृद्धिदर सन् २०१६ (आ.व. २०७२/०७३) मा न्यून देखिए पनि त्यसपछि सुधारोन्मुख देखिन्छ ।

औद्योगिक संस्था र लगानीको अवस्था

नेपालको उद्योग विभागले २०७६ जेठमा प्रकाशन गरेको प्रतिवेदन अनुसार २०७५ चैत्रसम्म नेपालमा जम्मा ७९६७ वटा उद्योग दर्ता भएका छन् । जसमध्ये उत्पादनमूलक उद्योग ३०१७, सेवामूलक २१८७, पर्यटन क्षेत्रसँग सम्बन्धित १७३२, उर्जामूलक ३७६, कृषि तथा वन पैदावरमा आधारित ४६९, खानी तथा खनिजजन्य ६९, सूचना तथा संचार क्षेत्रसँग सम्बन्धित ५९२ निर्माणमूलक उद्योग ५८ वटा छन् । सम्पूर्ण उद्योगको कूल पूँजी रु. १९ खर्ब ६३ अर्ब ७४ करोड, २५ लाख रहेको छ भने ५९८५०० जनालाई प्रत्यक्ष रोजगारी दिइएको छ । रु. १५ करोडभन्दा बढी पूँजी लगानी भएका ठूला उद्योग १११२ वटा, रु. ५ करोडभन्दा बढी १५ करोडसम्म पूँजी भएका उद्योग १७३१ र ५ करोड रुपैयासम्म पूँजी भएका साना उद्योग ५१२४ वटा छन् । प्रत्यक्ष वैदेशिक लगानी अन्तर्गत ९४ वटा देशबाट नेपालको व्यवसायिक क्षेत्रमा रु. २ खर्ब ९३ अर्ब ७० करोड ६६ लाख ८० हजार लगानी प्राप्त भएको छ । नेपालमा उत्पादित वस्तुमध्ये ७९ प्रकारका वस्तुलाई WTO बाट Patent right प्राप्त भएको छ ।

व्यापार क्षेत्रको विकासका लागि बैंक तथा वित्तीय संस्थाको विकास हुनु अपरिहार्य छ । आर्थिक सर्वेक्षण २०७५/०७६ अनुसार २०७५ चैत्रसम्म २८ वाणिज्य बैंक, ३२ विकास बैंक र २४ वित्त कम्पनीको कूल चुक्ता पूँजी रु. २ खर्ब ९५ अर्ब ८९ करोड ४६ लाख ६० हजार रहेको छ । यी बैंक तथा वित्तीय संस्थाहरूले निक्षेप संकलन रु. ३० खर्ब, ६६ अर्ब, १ करोड, ७६ लाख, १० हजार र कर्जा लगानी रु. २६ खर्ब, ६० अर्ब, २३ करोड ८० लाख ९० हजार रहेको छ । यस मध्ये उत्पादन क्षेत्रमा १६.९६% कृषि क्षेत्रमा ६.४९%, निर्माण क्षेत्रमा १०.६९ % थोक तथा खुद्रा व्यापार क्षेत्रमा २१.७१% कर्जा लगानी भएको छ । त्यस्तै १३९१७ वटा बचत तथा ऋण कारोवार गर्ने सहकारी संस्थाबाट बचत संकलन रु. ३ खर्ब ४५ अर्ब ५९ करोड तथा कर्जा लगानी ३ खर्ब, ३२ अर्ब, ७१ करोड रहेको छ ।

नेपालको आयात निर्यातको अवस्था

नेपालको उदार आर्थिक नीति अपनाउनु अघि आ.व. २०४६/०४७ मा आयात निर्यात अनुपात २.१४:१ (बजेट २०४७/०४८) थियो भने आ.व. २०७५/०७६ मा आइपुग्दा निर्यातको तुलनामा आयात बढेर १४.६१:१ (भन्सार विभागको प्रतिवेदन, २०७६) भइसकेको छ । वैदेशिक व्यापारको यथार्थ स्थिति यस प्रकार रहेको छ -

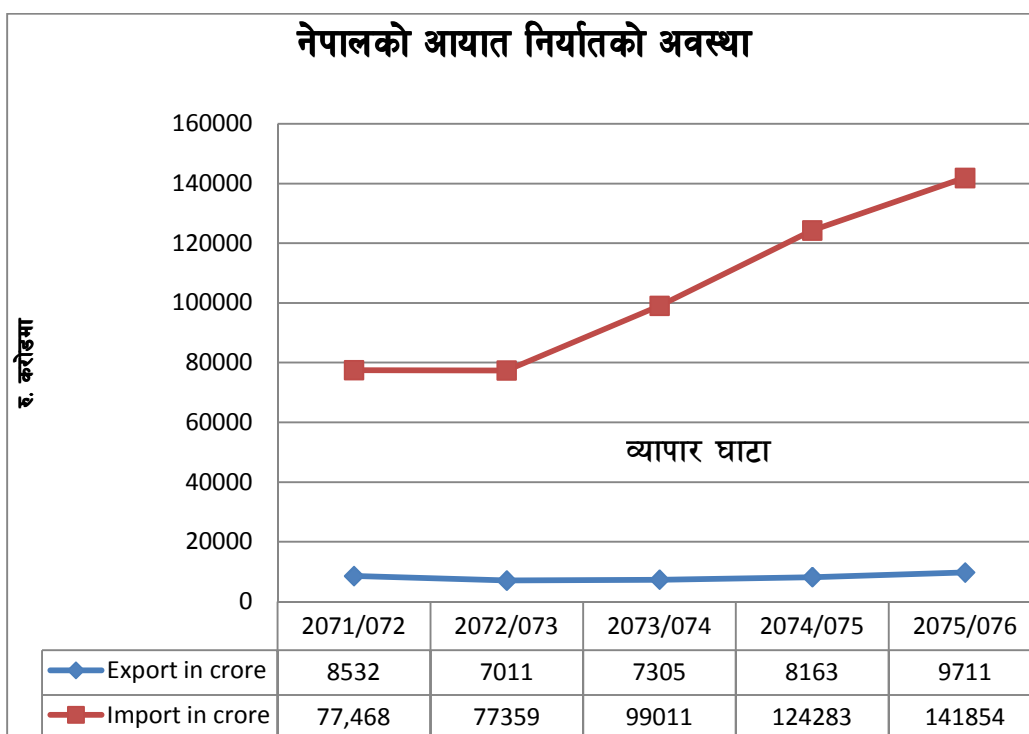
तालिका नं. २: नेपालको निर्यात आयातको स्थिति

रु. करोडमा

आर्थिक वर्ष	२०७१/७२	२०७२/७३	२०७३/७४	२०७४/७५	२०७५/७६
निर्यात:					
भारततर्फ	५५८६	३९४९	४१४५	४६६०	६२७३
चीनतर्फ	२२३	१६८	१७०	२८८	२११
अन्यमूलक तर्फ	२७२३	२८९४	२९९०	३२१५	३२२७
जम्मा निर्यात	८५३२	७०११	७३०५	८१६३	९७११
आयात:					
भारततर्फ	४९१६६	४७७२१	६३३६७	८०९८१	९१७९२
चीनतर्फ	१००१६	११५६९	१२७२४	१५९६४	२०५५२
अन्यमूलक तर्फ	१८२८६	१८०६९	२२९२०	२७३३७	२९५१०
जम्मा आयात	७७४६८	७७३५९	९९०११	१२४२८३	१४१८५४
जम्मा व्यापार घाटा (आयात-निर्यात)	६८९३६	७०३४८	९१७०६	११६११९	१३२१४३
निर्यातको तुलनामा आयात	९ गुणा	११ गुणा	१३.५५ गुणा	१५.२२ गुणा	१४.६१ गुणा
निर्यात वृद्धि (कमी) दर	(७.२५%)	(१७.८२%)	४.१९%	११.७४%	१८.३६%
आयात वृद्धि दर	१०.७६%	२.०५%	२७.९९%	२५.५२%	१४.१४%

(स्रोत: आर्थिक सर्वेक्षण २०७५/०७६ तथा भन्सार विभागको प्रतिवेदन २०७६)

नेपालको निर्यात र आयात दुवै आ.व. २०७१/०७२ भन्दा २०७२/०७३ मा केही घटेको छ । तर त्यसपछि निर्यात भन्दा आयात बृद्धि भएको छ । व्यापार घाटा क्रमशः घट्दै जानुपर्नेमा वर्षेनी बढ्दै गएको छ । आ.व. २०७४/०७५ मा कुल निर्यात रु. ८१ अर्ब ६३ करोडको गरियो भने आयात रु. १२ खर्ब ४२ अर्ब, ८३ करोडको गरियो । जसबाट रु. ११ खर्ब ६१ अर्ब १९ करोडको व्यापार घाटा हुन गयो । त्यसैगरी आ.व. २०७५/०७६ मा निर्यात र आयात क्रमशः रु. ९७ अर्ब ११ करोड र रु. १४ खर्ब १८ अर्ब ५४ करोडको भई उक्त आर्थिक वर्षमा रु. १३ खर्ब, २१ अर्ब, ४३ करोडको व्यापार घाटा हुन गयो । भारतसँगको व्यापार घाटा आ.व. २०६५/०६६ मा रु. १ खर्ब २१ अर्ब ४३ करोडको थियो (आर्थिक सर्वेक्षण २०६६/०६७) । त्यसको दश वर्षपछि आ.व. २०७५/०७६ मा आइपुग्दा भारतसँगको व्यापार घाटा रु. ८ खर्ब ५५ अर्ब १९ करोड पुगेको छ । आ.व. २०७५/०७६ मा चीनसँगको व्यापार घाटा रु. २ खर्ब ३ अर्ब ४१ करोड भएको छ । आ.व. २०७५/०७६ मा आयात-निर्यात अनुपात भारतसँग १५:१ र चीनसँग ९७:१ रहेको छ साथै कुल आयातको ६.८५% मात्र निर्यात गर्न सकेको छ । यस तथ्याङ्कले नेपालको वैदेशिक व्यापारमा आयात निर्यातको खाडल हरेक वर्ष बढ्दै गएको देखाउँछ, जुन चिन्ताजनक विषय हो । नेपालको आर्थिक वृद्धिदर र व्यापार घाटाको सह-सम्बन्ध ०.१७ रहेको छ । आर्थिक वृद्धिदर र व्यापार घाटाको सह-सम्बन्ध नकरात्मक हुनु पर्ने (आर्थिक वृद्धिदर बढ्दै जाँदा व्यापार घाटा घट्दै जानु पर्ने) मा यो सकारात्मक छ । यसले नेपालको व्यापार घाटा बढ्दै गएको पुष्टि गर्दछ ।



ग्राफ नं. १: आयात, निर्यात र व्यापार घाटा

वस्तुगत रूपमा आ.व. २०७४/०७५ मा नेपालले निर्यात र आयात गरेका मुख्य वस्तुहरू यस प्रकार रहेको छ ।

तालिका नं. ३ : आ.व. २०७४/०७५ मा नेपालबाट निर्यात भएका वस्तु र रकम रु. करोडमा

वस्तु	भारततर्फ	चीनतर्फ	अन्यमुलुक तर्फ	जम्मा
१. पश्मिना	६३.६	७.७७	२१४.४	२८५.७७
२. कपडा/तयारी पोशाक	३२०.४	१०.७६	४३७.८	७६८.९६
३. जडीबुटी	७२.९	-	२९.६	१०२.५
४. घिउ	१९.९	-	-	१९.९
५. ऊनी गलैचा	-	२५.९३	६८६.४	७१२.३३
६. दाल	-	-	८९.६	८९.६
७. जीवित जनावर	६.९	-	-	६.९
८. नेपाली कागज	-	-	३१.३	३१.३
९. अदुवा	१४८.१	-	-	१४८.१
१०. जुटका सामान	९४९	-	-	९४९

११. अलैची	५३.७	-	-	५३.७
१२. चिया	-	२.८९	-	२.८९
१३. चाउचाउ	४६.८	८.७८	-	५५.५८
१४. धागो	९५	-	-	९५
१५. कर्कटपाता	२७८	-	-	२७८
१६. आँटा/मैदा	७०.१	२.५१	-	७२.६१
१७. गाईको दाना	७६.३	-	-	७६.३
१८. टुथपेष्ट	३६६.५	-	-	३६६.५
१९. पाइप	२६.८	-	-	२६.८
२०. जुस	४७३.८	-	-	४७३.८
२१. हस्तकलाका सामान	-	४६.३४	८.९	५५.२४
२२. चाँदीका गहना	-	०.१५	३५	३२.१५
२३. प्रशोधित छाला	-	१०.१४	४४	५४.१४
२४. अन्य	१५९२.२	१७२.७३	१६४१	३४०५.९३
जम्मा	४६६०	२८८	३२१५	८१६३

(स्रोत: आर्थिक सर्वेक्षण, २०७५/०७६)

तालिका नं. ४: आ.व. २०७४/०७५ मा नेपालले आयात गरेका वस्तु र रकम (रु करोडमा)

वस्तु	भारतबाट	चीनबाट	अन्यमुलुकबाट	जम्मा
१. यातायातका साधन	१०५९७.४	४१०.९९	१०७७.९	१२०८६.२९
२. पेट्रोलियम पदार्थ	१७०१३.४	-	२१०.९	१७२२४.३
३. फलामजन्य सामान	१०८१७.७	१२१.५४	-	१०९३९.२४
४. मेशिन औजार	३९२७.७	१८८६.३४	१०९४.४	६९०८.४४
५. सिमेन्ट	३११७.८	-	-	३११७.८
६. औषधि	२४७.७	९१.५१	४७९.४	२९७८.६१
७. इलेक्ट्रिकल/ इलेक्ट्रोनिकस सामान	१५९४.७	१९९४.५२	३९५.५	३९८४.७२
८. तरकारी	११०३.९	-	-	११०३.९
९. कृषियन्त्र	३५५.३	१६२.२५	-	६१७.५५
१०. धागो	९३८.२	३०.२८	३४७.३	१३१५.७८

११. सुर्ति	२६४.१	-	-	२६४.१
१२. रासायनिक मल	१८६.२	८७२.१०	४६२.५	१५२०.८
१३. कपडा	४८४.४	८७६.३७	७४.३	१४३५.०७
१४. कागज	४८४.४	८७६.३७	७४.३	१४३५.०७
१५. एल्मुनियम	६४१.८	-	२६९.३	९११.१
१६. दुग्ध पदार्थ	६७१.१	-	-	६७१.१
१७. रसायनिक पदार्थ	६११.३	१६७.५९	-	७७८.८९
१८. मेडिकलका सामान	-	१५८.३७	-	१५८.३७
१९. धातु र काठका सामान	-	१५६.१९	-	१५६.१९
२०. कार्यालय सामान	-	११०.३९	-	११०.३९
२१. कच्चा रेशम तथा ऊन	-	२०६.८२	७५.३	२८२.१२
२२. जुत्ता/चप्पल	-	२९९.८६	-	२९९.८६
२३. प्लाष्टिकका कच्चा पदार्थ	-	२.४	१३८९.६	१३९२
२४. दुरसञ्चारका उपकरण	-	२६८२.५०	६०५.७	४०७२.१
२५. सुन	-	-	३२२०.४	३२२०.४
२६. चाँदी	-	-	१३३५.४	१३३५.४
२७. हवाईजहाजका पार्टस	-	-	२२३५.७	२२३५.७
२८. भटमासको तेल/पामतेल	-	-	१९७४.३	१९७४.३
२९. तामाका तार	-	-	२३०.५	२३०.५
३०. अन्य	२५६५०.४	६५४४.०४	११८५८.६	४४०५३.०४
जम्मा	८०९८१	१५९६४	२७३३७	१२४२८३

(स्रोत: आर्थिक सर्वेक्षण, २०७५/०७६)

नेपालबाट निर्यात हुने प्रमुख पाँच वस्तुहरू जुटका सामान, तयारी पोशाक, ऊनी गलैचा, जुस र टुथपेष्ट हुन् भने नेपालले आयात गर्ने प्रमुख वस्तुहरू पेट्रोलियम पदार्थ, यातायातका साधन, फलामजन्य वस्तु, मेशिन औजार, दूर संचारका उपकरण, इलेक्ट्रोनिकस सामान, सुन र सिमेन्ट हुन् । नेपाल कृषि प्रधान देश भनिन्छ तर कृषि उपजको निर्यात आ.व. २०७४/०७५ मा कुल निर्यातको २५% (आर्थिक सर्वेक्षण २०७५/०७६) मात्र देखिन्छ । सोही आ.व.मा नेपालले दूर संचारका उपकरण ३२ अर्ब ८८ करोड, सुन ३२ अर्ब २० करोड, इलेक्ट्रिकल तथा इलेक्ट्रोनिक सामान ३९ अर्ब ८४ करोड, चाँदी १३ अर्ब ३५ करोड बराबर रु. १ खर्ब १८ अर्ब २७ करोडको आयात गरेको देखिन्छ जुन तुलनात्मक रूपमा अनुत्पादक वस्तु हुन् । त्यस्तै यातायातका साधन र पेट्रोलियम पदार्थ रु. २ खर्ब ९३ अर्ब १० करोड ५९ लाखको आयात गरेको देखिन्छ । यस्ता वस्तुको खरिदले दुर्लभ विदेशी मुद्रा अनुत्पादनशील क्षेत्रमा मुलुक बाहिर गइरहेको छ । नेपालको निर्यातको तुलनामा आयात आ.व. २०७४/०७५ मा १५.२२ गुणा र आ.व. २०७५/०७६ मा १४.६१ गुणा भएको हुनाले व्यापार घाटा ठूलोमात्रामा देखिन्छ ।

नेपालको व्यापार असन्तुलनमा विप्रेषणको योगदानको अवस्था

श्रम स्वीकृति लिई वैदेशिक रोजगारीमा जाने नेपाली कामदारहरु आ.व. २०६३/०६४ देखि २०७४/०७५ सम्म जम्मा ४३६५४१५ (आर्थिक सर्वेक्षण २०७५/०७६) जन रहेका छन् । विदेशमा काम गरेरपाएको पारिश्रमिक नेपाल पठाउँदा नेपालको व्यापार घाटामा आवश्यक पर्ने विदेशी मुद्राको खाँचो टार्न ठुलो योगदान पुगेको छ (भट्ट, २०१३) । नेपालको व्यापार घाटाबाट उत्पन्न विदेशी मुद्राको आवश्यकता परिपूर्ति गर्न नेपालले विप्रेषण, पर्यटकबाट हुने आय, वैदेशिक सहायताको प्रयोग गरेको आर्थिक सर्वेक्षणले देखाएको छ । विप्रेषण नभएको भए नेपालको शोधान्तर स्थिति मिलानगर्न वैदेशिक ऋण ल्याउनु पर्ने स्थिति देखिन्छ (गौडेल, २०१६) । विप्रेषणले योगदान गर्दा गर्दै पनि २०७५ फागुनसम्म नेपालले भुक्तानी गर्न बाँकी खुद वैदेशिक ऋण रु. ५ खर्ब ९४ अर्ब ८५ करोड ८१ लाख (आर्थिक सर्वेक्षण २०७५/०७६) पुगेको छ । विप्रेषण र व्यापार घाटाको अवस्था यस प्रकार रहेको छ:

तालिका नं. ५ विप्रेषण र व्यापार घाटाको अवस्था

(रु. करोडमा)

आर्थिक वर्ष	२०७१/७२	२०७२/७३	२०७३/७४	२०७४/७५	२०७५/७६
व्यापार घाटा	६८९३६	७०३४८	९१७०६	११६११९	१३२१४३
विप्रेषण प्राप्त	७१७२७	६६५०६	६९५४५	७५५०६	८७४००
व्यापार घाटामा विप्रेषणको योगदान	१०४.०४%	९४.५३%	७५.८३%	६५.०२%	६६.१४%
व्यापार घाटा वृद्धिदर	१०.७६%	२%	३०.३६%	२६.६२%	१३.७९%
विप्रेषण वृद्धि (कमी) दर	३२.०२%	(७.२६%)	४.५६%	८.५७%	१५.७५%
कुल आयातमा विप्रेषण	९२.५९%	८५.९७%	७०.२४%	६०.७५%	६१.६१%

(स्रोत: आर्थिक सर्वेक्षण र ने.रा.बैंक)

अध्ययनका पाँच वर्षमा कुल आयातको औषत ७४.२३% विप्रेषणले योगदान पुऱ्याएको देखिन्छ । अर्थात् विदेशबाट खरिद गरिने वस्तुका लागि आवश्यक विदेशी मुद्रा मध्ये पछिल्ला पाँच वर्षमा औषत ७४.२३% विप्रेषणबाट प्राप्त रकमले वस्तुको आयात गरिएको छ । व्यापार क्षेत्रमा देखिएको व्यापार असन्तुलन परिपूर्ति गर्न विप्रेषणको औषत योगदान ८२.१४% छ । व्यापार घाटाको औषत वृद्धिदर १६.७२ % छ भने विप्रेषणको औषत वृद्धिदर १०.७३ % रहेको छ । यही दरमा भविष्यमा पनि वृद्धि हुने हो भने व्यापार घाटा परिपूर्ति गर्न विकल्प बेल्मा खोज्नु पर्ने देखिन्छ । व्यापार घाटा र विप्रेषणको सह-सम्बन्ध (Correlation Coefficient) ०.९१ रहेको छ । अर्थात् व्यापार घाटा १ प्रतिशत बढ्दा विप्रेषण ०.९१ प्रतिशतले बढ्दछ । यसले के देखाउँछ भने विप्रेषण नेपालको व्यापार घाटाबाट उत्पन्न विदेशी मुद्राको माग परिपूर्ति गर्न महत्वपूर्ण स्रोत बनेको छ ।

नेपालको आर्थिक वृद्धिदर पछिल्ला तीन वर्षमा विश्व आर्थिक वृद्धिदर भन्दा उच्च रहेको छ । आर्थिक वर्ष २०७५/०७६ मा नेपालमा बढ्दै गएको व्यापार घाटाबाट उत्पन्न विदेशी मुद्राको माग विप्रेषणबाट ६६.१४% परिपूर्ति भएको छ ।

निष्कर्ष

नेपालको व्यापार असन्तुलन बढ्दै गएको देखिन्छ । आफ्ना निर्यात हुने वस्तुहरूको उत्पादन वृद्धि गर्नुपर्ने, स्वदेशमै आयातित वस्तुको उत्पादन गरी आयात प्रतिस्थापन गर्नुपर्ने र देशमै आद्योगिक क्षेत्रको विकास गरी व्यापार घाटा कम गर्नुपर्ने आवश्यकता रहेको छ । व्यापार घाटाबाट उत्पन्न विदेशी मुद्राको माग परिपूर्ति गर्न विप्रेषण आर्थिक वृद्धिको दिगो स्रोत नभएकाले समयमा नै विदेशी मुद्रा आर्जनका लागि दीर्घकालीन समाधान खोज्नु पर्ने चुनौति नेपाली अर्थतन्त्र सामु रहेको छ ।

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नेपाली नाट्यपरम्परामा प्रयोगवाद

रामप्रसाद भण्डारी*

सार

योग शब्दमा प्र उपसर्ग लागी बनेको प्रयोग तत्सम शब्द हो, त्यसमा वाद शब्द थपिदा सैद्धान्तिक वा दार्शनिकतालाई प्रस्तुत गर्छ । अर्थात् साहित्यमा यसको अर्थ परम्पराभन्दा भिन्न नवीन ढङ्ग ढाँचा र शैलीको दार्शनिक धरातलमा रचना गरिएको साहित्य भन्ने हुन्छ । नौला कार्यका लागि 'प्रयोग' शब्द प्रयुक्त हुने सन्दर्भमा साहित्यमा पनि परम्परागत ढङ्ग र शैलीका रचनाले स्रष्टाको लेखनमा कठिनाई आइपर्दा प्रयोग र परीक्षणका लागि ढङ्ग ढाँचा र शैलीमा भिन्नता देखापरेपछि, प्रयोगवादी लेखनको सुरुवात हुन पुगेको देखिन्छ ।

पाश्चात्य साहित्यबाट साहित्यका विविध विधामा प्रयोगको स्वरूप देखापरे पनि प्रयोग शब्द भारतीय साहित्यबाट नेपालीमा प्रयोगमा आएको हो । पाश्चात्य साहित्यमा अस्तित्ववादी, विसङ्गतिवादी प्रतीकवादी, प्रकृतवादी, स्वैरकल्पनावादी अवधारणा देखापऱ्यो र परम्परागत शास्त्रीय धाराका मूल्यमान्यता भत्किन पुगे । यी साहित्यमा प्रयोग भएका नवीन मान्यता भारतीय साहित्यमा आइपुग्दा प्रयोगवादी नामले चिनिन थालियो । त्यसैले हालमा आएर अस्तित्ववादी विसङ्गतिवादी, प्रकृतवादी, अतियथार्थवादी, स्वैरकल्पनात्मक अवधारणालाई आधार लिई लेखिएको साहित्य नै प्रयोगवादी साहित्यका नामले चिनिन्छ ।

पश्चिमी मुलुकमा कला र साहित्यमा मानवीय मूल्य, मान्यता तथा उपलब्धिहरूबाट वाक्क भई नौला र नयाँ प्रयोगतर्फ कलाकार र साहित्यकार उद्यत हुन थाले । फलस्वरूप शास्त्रीय धाराका मूल्यमान्यता भत्काई नव शास्त्रीय प्रकृतवादी, प्रतीकवादी, स्वैरकल्पनात्मक, अस्तित्ववादी, विसङ्गतिवादी आदि मान्यता देखापरे, जसले गर्दा साहित्यका विधागत मान्यता भत्किई प्रस्तुति, विषयवस्तु, पात्रप्रयोग आदिमा नवीन स्वरूप देखा पऱ्यो, अनि प्रयोगवादी साहित्यको सुरुवात भयो । (प्रधान : २०६२, पृ. ३४) प्रतीकवादी साहित्यमा अतियथार्थको प्रयोग मानवीय अस्तित्वको रक्षा, विसङ्गतिवादी धारणा स्वचालित लेखन, मानवीय मनका चेतन, अचेतन अर्धचेतन लेखन आदिको प्रयोग हुनथाल्यो । यही प्रयोगको स्वरूप नाटक विधामा पनि देखा पऱ्यो, अनि प्रयोगवादी नाट्यसाहित्यको सुरुवात भयो ।

नेपाली नाट्यपरम्परामा प्रयोगवाद

प्रयोगवादी नेपाली नाटकको अध्ययन गर्दा कथ्य शिल्प तथा प्रस्तुतिका हिसावले ध्रुवचन्द्र गौतमको त्यो एउटा कुरामा ठोकिन पुग्नु पर्ने हुन्छ तथापि नेपाली नाटकमा गौतमभन्दा अधिका केही नाटककारहरूले प्रयोगका नौला छिटा आफ्ना नाटकमा ल्याई प्रयोगधर्मी नाटक लेखेका हुनाले प्रयोगवादी नेपाली नाटकको चर्चा गर्दा ती नाटकहरूको चर्चागर्नु आवश्यक हुन्छ ।

प्रयोगवादी नेपाली नाट्य सन्दर्भको चर्चा गर्दा बालकृष्ण समको ऊ मरेकी छैन (२००० मञ्चन) बाट सुरु गर्नु उपयुक्त हुन्छ । समद्वारा १९९९मा रचित र २००२ मा मञ्चित ऊ मरेकी छैन नाटक एक प्रयोग धर्मी नाटकको शिलान्यास हो । (उपाध्याय :

* लेखक भण्डारी नेपाली विभाग दमक बहुमुखी क्याम्पसका उपप्राध्यापक हुनुहुन्छ ।

२०६१, पृ. ३६) स्कन्दपुराणको केदारखण्डबाट झिकिएको यो नाटकमा शिव र सती देवीको प्रतीकात्मक प्रयोग भएको छ । (प्रधान: २०६२, पृ. ४५)। यस नाटकको वस्तु सङ्गठनमा प्रायोगिकता भेट्न सकिन्छ । यसै गरी २००० सालमा रचित स्वास्नीमान्छे नाटकमा स्वैरकल्पनाको प्रयोगगरी समले प्रयोगको अर्को नौलो स्वरूप देखाएका छन् । समले २०११ मा क्रान्तिकारी भानु एकाङ्की लेखी त्यसमा पनि नव प्रयोगको संकेत गरेको भेटिन्छ ।

यसै गरी प्रयोगधर्मी नाटकको दोस्रो उठान विजय मल्लको कङ्काल एकाङ्की २०१८ बाट सुरु भएको हो । (उपाध्याय : २०६१, पृ. ३६) यसैगरी मल्लले भोलि के हुन्छ ? (२०२५) नाटकमार्फत स्वैरकल्पना, विम्ब र प्रतीकको प्रयोग गरी प्रयोगवादको अर्को नमुना प्रस्तुत गरेका छन् । उनको अर्को एकाङ्की पत्थरको कथा (२०२३) मा स्वैरकल्पनात्मक शिल्प र शैली भित्र अतिथार्थको आधारशीलाबाट यथार्थ वस्तुतथ्यमा पुग्ने प्रयास गरिएको छ । यस नाटकमा पनि प्रयोगको नवीन स्वरूप देखापरेको छ । यिनका पाहुना, सत्ताको खोजमा भूतप्रेतको प्रयोग तथा दोभान र पुराणको हराएको पानामा आदिमतापरक मिथकको प्रयोग भएको छ । भित्तेघडीमा विसङ्गतिवादी चिन्तनका केही छिट्टा भेटिन्छन् । यसरी विजय मल्लका नाटकमा विसङ्गतिवादी अस्तित्ववादी प्रतीकवादी स्वैरकल्पना आदि जस्ता प्रयोगात्मक स्वरूप भेटिन्छन् ।

कथ्य, शिल्प तथा प्रस्तुति तीन पक्षबाट नेपाली नाटकमा प्रयोगको सुरुवात गर्ने ध्रुवचन्द्र गौतम प्रयोगधर्मी उत्तरआधुनिक प्रवृत्तिको नव नाट्य लेखनको आरम्भकर्ताका रूपमा परिचित छन् । उनले नेपाली नाटकको कथा, शिल्प तथा प्रस्तुति तिनै क्षेत्रबाट विसङ्गतिवादको थालनी गरेका हुन् । उनको त्यो एउटा कुरा (२०३०) बाट यो धारा सुरु हुन्छ । गौण तथा विशृङ्खलित कथावस्तु, चरित्रको प्रधानता केन्द्रभङ्गता स्वप्नलोकको प्रयोग, वैचारिकता विसङ्गतिवादी शैली, असित् व्यङ्ग्य मौनताको प्रयोग जस्ता प्रयोगवादी प्रवृत्तिहरू यस नाटकमा प्रयोग भएका छन् । गौतमले यस नाटकको माध्यमबाट मान्छेको जिन्दगीको निस्सारता, निरर्थकता र शून्यताको बोध गराई विसङ्गतिपूर्ण चिन्तनलाई अभिव्यक्त गराएका छन् । यस्तै उनको अर्को चर्चित प्रयोगवादी नाटक भस्मासुरको नलीहाड हो । यसमा भस्मासुरको नलीहाडलाई मिथक र प्रतीकको रूपमा प्रयोग गरी स्वैरकल्पनात्मक ढङ्गमा पौराणिक कथालाई प्रस्तुत गरी शक्ति र सत्ताको निरङ्कुशतालाई संकेत गर्दै कुसीमा आसीन भ्रष्टाचारी, घुसखोरी व्यक्तिको पतन र विनास अवश्य हुन्छ भन्ने कुरा देखाइएको छ । यस्तै गरी यो नाटकमा मौन परम्परा, मिथकीयता, स्वैरकल्पना, प्रतीकात्मकताजस्ता प्रयोगका नवीन स्वरूपहरू पनि भेटिन्छन् । (पौडेल: २०५६ पृ. ८७)

यस्तै गरी समानान्तर नाटकमा व्यङ्ग्यात्मक संवाद, विशृङ्खलमूलक शैली, हीनतर पात्रको प्रस्तुति भेटिन्छ । द्वन्द्वमा तासको खेल, मुखुण्डाको प्रयोग, संवादमा श्याम व्यङ्ग्य, अस्तित्वको खोजीमा तासको परिकल्पना, जस्ता नवीन प्रवृत्ति भेटिन्छन् । कीर्तिमानमा भ्रष्टाचारलाई कीर्तिमान ठान्ने नेताको चरित्र प्रस्तुत गरी व्यङ्ग्य गरिएको छ भने नाटक कसरी थाल्ने हो ? वर्तमान राजनीति अवस्थाको 'एड्स फ्रि कार्यालय' को परिकल्पना गर्दै जनताको चाहनालाई स्वप्नमा मात्र रूपान्तरण गर्ने भ्रष्ट नेताको यथार्थ चित्रित छ ।

(रोशन थापा 'नीरव', पूर्ववत् , (भूमिका) यसरी हेर्दा उनका नवीन प्रयोगहरूमा सीमित नाट्यउपकरण, विसङ्गतिपूर्ण शैली, छोटो संवाद, स्वैरकल्पना, परिकल्पना, श्यामव्यङ्ग्य र पात्रप्रयोग नवीनता हुन् ।

प्रयोगधर्मी नेपाली नाट्यक्षेत्रका अर्का हस्ती मोहनराज शर्मा हुन् । उनका जेमन्त, यमा र वैकुण्ठ एक्सप्रेस प्रयोगवादी नाटक छन् । उनका यी नाटकहरूमा परिपक्व विकसित र विशिष्ट प्रयोगको स्वरूप भेटिन्छ । (प्रधान : २०६२, पृ ५१) उनका नाटकमा सफल स्वैरकल्पनाको प्रयोग, अयथार्थलाई यथार्थमा ल्याएर टुङ्ग्याउने तथा व्युत्पन्न कथा प्रस्तुत गरी विसङ्गत जीवनको अभिव्यक्ति भित्र अश्वेत व्यङ्ग्य भेटिन्छ । यिनको वैकुण्ठ एक्सप्रेसमा वर्तमान मानवीय जीवन र व्यवस्थाप्रति व्यङ्ग्य भेटिन्छ । यमा नाटक एउटै दृश्यमा छ भने यसमा यन्त्रमानवको प्रयोग गरी नवीनता भित्र्याएको छ । (अधिकारी : २०४६, पृ ४०) यसमा समय स्थानको स्पष्ट निर्देशन भेटिदैन । यिनका नाटकमा फ्यान्टासीको प्रयोग भेटिन्छ । वैकुण्ठ एक्सप्रेसमा पात्रलाई परिवर्तन गरिदिने र अर्को मनोलोकमा धुमाउने यान्त्रिकीको प्रयोग भेटिन्छ । यिनका नाटकमा मकैसिंह, चेमजोङ बाबुकाजी जस्ता नेपाली नामहरू भेटिन्छन् ।

यसैगरी अर्का प्रयोगधर्मी नाटककारका रूपमा अशेष मल्ल परिचित छन् । उनी जीवनवादी नाटककार हुन् । (गोविन्दराज भट्टराई, पूर्ववत् पृ.४६) उनका शेषयुद्ध, अनादिक्रम, अतिरिक्त आकाश आदि नाटक छन् । हाम्रो जस्तो अल्पविकसित मुलुकमा मेक अप, प्रकाश, ध्वनि अनि मञ्चनीय साजसज्जाको कठिनाई र चुनौतिपूर्ण परम्परा भत्काएर सहज र स्वाभाविक रूपमा अशेष मल्लले नाटकलाई सडकमा उतारेका छन् । यिनले कलाकार र दर्शकको भेदलाई समाप्त नगरलाई सहज स्वभाविक अकृतिम बनाउने कार्य गरेका छन् ।

यसै गरी प्रयोगधर्मी अर्का नाटककार हुन्, अविनाश श्रेष्ठ । उनका अश्वत्थामा हतोहत, समय, समय अनि समय सफल नाटक छन् । पात्रलाई प्रतीकका रूपमा उभ्याउनु र तिनलाई आजको समयसापेक्ष आँखाले पुनर्स्थापित गर्नु उनको प्रयोग पक्ष हो । (प्रधान : २०६२, पृ.५३) यिनले पौराणिक पात्रलाई ऐतिहासिक पात्रमा परिणत गरी आजको साधारण नागरिकको रूपमा उतारेका छन् । यिनको प्रयोग पात्रको प्रस्तुति भेटिन्छ ।

विज्ञान नाटकको कल्पना र प्रयोग गर्ने प्रथम नाटककारका रूपमा सरूभक्त परिचित छन् । यिनका इथर, गोलार्द्धको कालो आकाश चर्चित प्रयोगवादी नाटक हुन् । इथर विज्ञान नाटक हो । यिनका नाटकमा दन्त्यकथाका पात्रलाई प्रतीकका रूपमा प्रयोग गरी मञ्चमा सूत्रात्मक तथा सटिक रूपमा समेत प्रस्तुत गरिएको हुन्छ । जस्तै एम्स, एक्स ०१, ०२, ००, ४०० । यस्तै कलकारले दर्शक सामु परिचय दिने र आफ्नो प्रयोजन मन्ने जस्ता नौला नाट्य शिल्प यिनका नाटकमा प्रयोग भएका छन् । यिनले दृश्यको नाम ज्ञ, त्र राखेका छन् । (प्रधान: २०६२, पृ. ५४) यही नवीन नाट्य शिल्पहरू यिनका नाटकमा भेटिन्छन् ।

अर्को प्रयोगधर्मी नेपाली नाटककार हुन् गोपालप्रसाद पराजुली । उनका गोलाईका दुई छेउ, सडक पछि सडक, गोलपोष्ट प्रयोगवादी नाटक हुन् । गोलाईको दुई छेउ र सडक पछि सडकमा आजको मानवले भित्रिभित्रै आनो अस्तित्व कसरी हराउँदै गइरहेको छ, कोलाहल परिवेशमा विसङ्गति तथा संश्रुत मानव अस्तित्वको खोजाइमा खिड्दै गएर कसरी अकबन्दको परिस्थितिमा पुगेको छ भन्ने नौलो चिन्तनमा प्रस्तुत गरिएको छ । (प्रधान : २०६२, पृ ५५) छोटो संवाद, शृङ्खलाविहीन भई टुक्रेका घटना अलमलिएका पात्र उनका प्रयोगका पक्ष हुन् भने पुरुष १, २ छन्द १, २, आवाज १, २ आदि नवीन पात्रप्रयोग तथा संवाद असान्दर्भिक भएर भिन्न भिन्न कथन प्रस्तुत हुनु पनि नाट्य प्रयोग हो ।

अर्को प्रयोगवादी नाटककार शिव अधिकारी हुन् । उनका त्रासदी मुद्राहरू (२०४०) एकट्टी संग्रह हो भने तासको जामा (२०४८) सिंहासन (२०५५) नाटक हुन् । त्रासदी मुद्राका लघुनाटिका नाटक हुन् वा होइनन्का स्थितिमा छन् किनकि यिनमा वैचारिक द्वन्द्व, तर्क र चिन्तनका झिल्का मात्र भेटिन्छन् । यिनका नाटकका शब्द १, २, ३ च छन् जस्ता संकेतमा छन् । तिनीहरूको वर्णन छैन । ती संवादमा उत्रिएर विचार बोल्दा धेरै जसो असङ्गत मनोग्रन्थीको प्रतीकले परिचय दिन्छन् । यसरी यिनका नाटकमा उपर्युक्त नवीन नाट्यप्रवृत्ति भेट्न सकिन्छ ।

अर्का प्रयोगवादी नाटककार मनबहादुर मुखिया हुन् । असत्यम् अशिवम् असुन्दरम् जस्तो प्रयोगवादी नाटक लेखेर यिनी प्रयोगवादी नाट्यक्षेत्रमा प्रवेश गरेका हुन् । (खतिवडा: २०६३, पृ .५५) यस नाटकमा परम्परागत मूल्य मान्यताको अर्थगत परिभाषालाई तोडेर समसामयिक समाज भित्रको अस्तित्वहीनता पतन, व्यर्थता र विक्षिप्तताका प्रतीक रूप कथनको प्रयोग भएको यो नाटक प्रायोगिक अनाटक भएको छ । समाज भित्रका विसङ्गतिलाई बौद्धिक प्रहार गरेर सुषुप्त चेतनालाई जगाउने प्रयास यस नाटकमा भएकोले अनाटकीयताको प्रयोग यसमा सार्थक छ ।

अभि सुवेदी अर्का प्रयोगवादी नाटककार हुन् । उनको २०६० मा प्रकाशित पाँच नाटक शीर्षकमा ५ पूर्णाङ्की नाटक अग्निको कथा, ठमेलको यात्रा, यूमा, नाटकपछिको यात्रा र रूगालाको आकाश प्रकाशित भएका छन् । उनको अर्को प्रयोगवादी नाटक काठमाडौँ ओडिसी हो । यूमामा किराँतकालीन मिथको प्रयोग गरिएको छ । 'रूगालाको आकास' मा गीतसंगीतसंगै चित्रकलाको प्रयोग गरी प्रयोगवादी नवीन प्रवृत्तिलाई भित्र्याइएको पाइन्छ । (उपाध्याय : २०६१, पृ ६५) नाटकपछिको यात्रा मा रङ्गमञ्चीय नव प्रयोग र अधिरङ्गमञ्चीय प्रयोग भएको छ । यसमा भिन्न भिन्न काल, देश एवं धर्म र संस्कृतिका पात्रहरूलाई एकै समयमा एउटै मञ्चमा उभ्याएर गम्भीर दार्शनिक वहस गराइएको छ । यसरी प्रस्तुति तथा कथामा नवीन प्रयोगको स्वरूप देखाउने अभि सुवेदी एक परिपक्व प्रयोगवादी नाटककार हुन् ।

विप्लव ढकाल अर्का ज्यादै तिख्खर आवाज लिएर नितान्त नौलो प्रयोगकर्ताका हारमा उभिने नयाँ नाटककार हुन् । उनका अन्तिम नायक, क्यापको टेप जस्ता

प्रयोगवादी नाटकहरू प्रकाशित छन् । उनका नाटकमा आधुनिक मानव सभ्यता भित्रको मनोदशाको विसङ्गतिपूर्ण अवस्था पात्र (+) र (-)को संवाद चलेपछि संवाद (-) को त्रासदी एकालाप भेटिन्छ । (खतिवडा : २०६३, पृ. ४२) यस नाटकको स्थान पृथ्वी, समय र वर्तमान हो ।

यी प्रमुख प्रयोगवादी नाटककार बाहेकका अन्य प्रयोगवादी नाटककारहरूमा बट्टी अधिकारी, सन्तोष भट्टराई, रश्मी खतिवडा, नयनराज पाण्डे, रोशन सुवेदी, मणिक्रमराज शर्मा, राजव, शार्दूल भट्टराई, गोविन्द गिरी 'प्रेरणा' आदि पर्दछन् । यी नाटककारहरूका नाटकहरूमा पनि थोरै बहुत रूपमा प्रयोगधर्मिता भेट्न सकिन्छ ।

निष्कर्ष

यी सबै नाटककारहरूको पद्धतिविशेषलाई हेर्दा अवश्य पनि नौला नौला विचार र चिन्तन नेपाली नाटकमा भित्र्याई परम्परागत नाट्यरूप भत्काई छुट्टै नाट्य शिल्प अँगालेर प्रयोगवादलाई नेपाली नाटकमा भित्र्याएको भेटिन्छ । नाटकको वस्तु, शिल्प, प्रस्तुति, परिवेशमध्ये कसैले एकमा त कसैले सबैमा नवीनता दिने काम गरेको भेटिन्छ । 'ऊ मरेकी छैन' नाटकबाट सुरु भएको नेपाली प्रयोगवादी नाटकले नाटकमा सबैपक्षमा नवीन प्रवृत्ति देखाउँदै आएको छ । गाउँ, समाज, राष्ट्र र विश्व परिवेशमा देखा परेका नवीन प्रवृत्तिहरूलाई आत्मसात गर्दै समयसापेक्ष नाटक परिवर्तन हुनु आवश्यक छ र आगामी दिनमा नेपाली नाटकले यस्ता अनेकौँ प्रयोगवादी फट्का मारेर विश्वमा नेपाली साहित्यलाई चिनाउन सक्नेछ भन्ने कुरामा आशा गर्न सकिन्छ ।

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नेपालको वैदेशिक रोजगारी र विप्रेषण : एक अध्ययन

वेदनाथ गिरी*

सार

प्रस्तुत अनुसन्धानात्मक लेख नेपालको वैदेशिक रोजगारी र विप्रेषण : एक अध्ययन नेपालको २०५०/०५१ देखि २०७१/०७२ सम्म नेपालबाट वैदेशिक रोजगारीमा गएका नेपाली कामदारहरूको तथ्याङ्कलाई आधार मानेर तथ्याङ्कको द्वितीय स्रोतका माध्यमबाट प्राप्त तथ्याङ्कलाई विश्लेषण गरिएको लेख हो । देशमा विद्यमान रोजगारीको समस्या, तीव्र औद्योगिक विकासको अभाव, कृषिमा आधुनिकीकरणको अभाव, कृषिमा व्यावसायीकरणको समस्या र गरिवीका कारण वैदेशिक रोजगारीमा जाने युवा जनशक्तिको संख्या अत्याधिक रहेको छ । जसको कारण देशमा जनशक्तिको अभाव छ भने अर्कोतिर ग्रामीण साधन स्रोतको सदुपयोग हुनसकेको छैन । तथ्याङ्कको विश्लेषणलाई हेर्दा वैदेशिक रोजगारीमा सबैभन्दा बढी मलेशिया र सबैभन्दा कम इजरायलमा नेपाली कामदारहरू गएको देखिन्छ । आर्थिक वर्ष २०७३/०७४ मा वैदेशिक रोजगारीमा जानेको संख्या ६ लाख ५५ हजार हालसम्मकै उच्च रहेको छ । आर्थिक वर्ष २०७३/०७४ मा सबैभन्दा बढी विप्रेषण कतारबाट ३१.६ प्रतिशत र सबैभन्दा कम दक्षिण कोरियाबाट १.५ प्रतिशत, संयुक्त अरब इमिरेट्सबाट १४.२ र कुवेतबाट ३.४ प्रतिशत विप्रेषण प्राप्त भएको निष्कर्षले देखाएको छ । प्राप्त विप्रेषण मध्ये सबैभन्दा बढी दैनिक गुजारा ७८.९ प्रतिशत, ऋण तिर्न ७.८ प्रतिशत, घरायसी सामान खरिद गर्न ४.५ प्रतिशत, शिक्षामा ३.५ प्रतिशत, पूँजी निर्माणमा २.५ प्रतिशत, वचतमा ०.६ प्रतिशत र व्यवसायमा ०.५ प्रतिशत विप्रेषणको सदुपयोग गर्ने गरिएको देखिन्छ । यसरी हेर्दा विप्रेषणको न्यून रकममात्र वचत र अधिकांश रकम अनुत्पादक क्षेत्रमा खर्च हुने गरेको निष्कर्षले देखाएको छ । अन्ततः विप्रेषणको वचत र उत्पादनमूलक क्षेत्रमा लगानी गर्नका लागि साथै स्वदेशमा नै रोजगारीका अवसरहरू सृजना गरी समाजको विकास गर्न तर्फ सम्बन्धित सबै पक्षले बेलैमा सचेत हुन जरुरी हुने अध्ययनले देखाएको छ ।

मुख्य शब्दावलीहरू : वैदेशिक रोजगारी, रोजगारी, विप्रेषण, व्यवसाय, जनशक्ति ।

पृष्ठभूमि

सामान्यतया वैदेशिक रोजगारी भन्नाले एक देशका युवायुवती आफ्नो देशमा रोजगारी नपाएर अर्को देशमा रोजगारी गर्नका लागि जाने र रोजगारी पाउने अवस्थालाई जनाउँछ । नेपालबाट वैदेशिक रोजगारीका लागि विदेश जाने चलनको सुरुवात नेपाल अङ्ग्रेज युद्ध (१८१४-१८१६) मा नेपाली युवाहरूलाई ब्रिटिश गोर्खा सैनिकमा भर्ना लिने गरेदेखि भएको पाइन्छ, साथै वैदेशिक रूपमा श्रमिकको बसाइ सराई (Labour Migration) १९ औं शताब्दीको मध्यतिर नेपाली किसानहरू भारतको चियाकमान र खेतीमा काम गर्न जाने गरेको इतिहास छ । सन् १९७० को उत्तरार्द्धमा एशियाका पश्चिमा देशहरूमा खनिज तेलको उत्खनन र उद्योगहरूको स्थापना भए सँगै दक्षिण एशियाका देशहरू लगायत नेपालबाट वैदेशिक रोजगारीमा ती देशमा जाने चलन चलेको हो र अहिले खाडी राष्ट्रहरू (Gulf Countries) नै नेपाली कामदारहरूको मुख्य वैदेशिक रोजगारीको गन्तव्य देशहरू रहँदै आएको छ । दैनिक औसतमा १२०० देखि १५०० को सख्यामा नेपाली कामदारहरू वैदेशिक रोजगारमा जाने गरेको नेपाली कामदारहरूबाट प्राप्त विप्रेषणले देशको कुल राष्ट्रिय ग्राहस्थ उत्पादनमा आ.व. २०७३/०७४ मा २६.८ प्रतिशत हिस्सा ओगटेको देखिन्छ ।

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जनसङ्ख्याको लगभग १० प्रतिशत जनसङ्ख्या वैदेशिक रोजगारीकोमा रहेको र प्रत्येक वर्ष नेपाली श्रमबजार (Labour Market) मा झण्डै चार लाख पचास हजारको सङ्ख्यामा श्रमबजारमा युवा जनशक्ति उत्पादन नेपालमा हुने गरेको र यी युवा जनशक्तिको गन्तव्य वैदेशिक रोजगारी बन्दै गएकोमा ७० प्रतिशत अदक्ष (Unskilled), २९ प्रतिशत अर्धदक्ष र बाँकी १ प्रतिशत मात्र दक्ष (Skilled) जनशक्ति रोजगारीका सिलसिलामा विदेश जाने गरेको तथ्याङ्कले देखाउँछ । कुल जनसङ्ख्याको ३० प्रतिशत अर्धबेरोजगार र २.३ प्रतिशत बेरोजगार भएको सरकारी तथ्याङ्क अनुसार लगभग २१.६ प्रतिशत जनसङ्ख्या अझै पनि गरीब रहेको र देशमा विद्यमान रोजगारीको अवसर नभएको कारण वैदेशिक रोजगारीमा जाने जनसङ्ख्या दिनानुदिन बढ्ने गरेको पाइन्छ ।

वैदेशिक रोजगारीका कारण देशमै पनि मेनपावर र मेनपावरका एजेन्टमार्फत ठगिने कामदारहरूको लागि सुरक्षित, मर्यादित र व्यवस्थित बनाउन सकिराखिएको छैन । साथै वैदेशिक रोजगारीमा जाँदा पर्याप्त पानी नपिउँदा, बाटो काट्न नजान्दा, कोठामा एसी चलाउन नजान्दा, गन्तव्य देशको भाषा बोल्न नजान्दा, तोकिएको काममा समस्या, हावापानीसँगको घुलमिलमा समस्या, उचित बिमाको समस्या, तोकिएको काम गर्ने कम्पनीमा हुने पूर्वाधारहरूको समस्या र दलालहरूबाट ठगिने क्रम पनि रोकिएको छैन । खड्का (२०७४, पौष) का अनुसार वैदेशिक रोजगार प्रवर्द्धन बोर्डले २०६५ सालदेखि राख्न थालेको वैदेशिक रोजगारीमा गएका कामदारहरूको विवरणअनुसार २०७४ पौषसम्ममा ६ हजार दुईसय तीनजना कामदारहरूले रोजगारीका क्रममा विभिन्न गन्तव्य मुलुकमा ज्यान गुमाइसकेका छन् । साथै कानुनी र गैरकानुनी रूपमा जाने कामदारमध्ये सरदर दैनिक तीन जनाले ज्यान गुमाउने गरेका छन् । यसका अलावा वैदेशिक रोजगारी एक अवसरको रूपमा पनि लिइएको छ किनकि वैदेशिक रोजगारीका कारण रोजगारीको अवसर, मासिक आम्दानी, सीप, क्षमता अभिवृद्धि, नयाँ परिवेशमा संस्कृतिको ज्ञान र आदान प्रदान, पारिवारिक लगानी जस्तै शिक्षा, स्वास्थ्य र आय आर्जनमा लगानीका साथै कतिपय कामदारले वैदेशिक रोजगारीबाट स्वदेश फिरेपछि नयाँ आधुनिक व्यवसाय सञ्चालनका साथमा व्यावसायिक कुखुरा पालन, मौरीपालन, आधुनिक सब्जी खेती, च्याउ खेती, फलफूल खेती, व्यावसायिक गाईपालन, बाख्रापालन व्यवसाय सञ्चालन गरी स्वरोजगारीमार्फत राम्रो आम्दानी पनि गरेको पाइन्छ ।

राउत (२०१६ ई.सं.) को एक अध्ययनका अनुसार वैदेशिक रोजगारीका कारण नेपाली युवा युवतीहरूले राम्रो आम्दानी गरेको देखाएको छ । तर बहुसंख्यक कामदारहरू खाडी देशहरूमा जाने गरेको र त्यसमा पनि सीप सिकेर जानेभन्दा साधारण लेखपढ भएका अदक्ष कामदारहरूको बाहुल्यता रहेको कारण कमसल खालको काममात्र कामदारहरूले पाउने र न्यून पारिश्रमिकमा काम गर्नुपर्ने बध्यता रहेको अवस्था छ । साथै वैदेशिक रोजगारीले घरायसी खर्च बढेको, आधुनिकताको प्रभावको कारण कतिपय पारिवारिक हलचल साथै गाउँबाट बजारतिर बसाई सराइ बढेको पनि अनुसन्धानले देखाएको छ । यसरी हेर्दा वैदेशिक रोजगारीले सकारात्मक र नकारात्मक दुवै प्रभाव पारेको छ ।

पोखेल (२०१८ ई.सं.) ले वैदेशिक रोजगारीको कारण र प्रभाव बारे गरेको एक अध्ययन अनुसार देशमा रोजगारीको व्यापक अवसर नहुनु, गुणस्तरीय शिक्षाको अभाव, परम्परागत कृषि प्रणाली, कामको न्यून तलब, युवाहरूको भविष्यप्रति सरकारको स्पष्ट नीतिको अभावका कारण वैदेशिक रोजगारीमा युवाहरूको आकर्षण बढेको देखाएको छ । साथै वैदेशिक रोजगारीबाट प्राप्त

आम्दानीको अधिकांश हिस्सा अनुत्पादक क्षेत्रमा खर्च हुने गरेको जस्तै पुरानो ऋण तिर्न, दैनिक आवश्यकता पूरा गर्न, चाडपर्व, विवाह, भोज आदिमा खर्च हुने गरेको पाइएको छ र विप्रेषणबाट प्राप्त रकमको देशमा उत्पादनशील क्षेत्रमा लगानी गरी देशमा नै केही स्वरोजगारमुखी क्षेत्रमा लगानी गर्ने वातावरण तयार गर्नका लागि सबै सरोकारवालाहरूले बेलैमा सोचन तर्फ लाग्नुपर्ने अध्ययनको उक्त निष्कर्षले देखाएको छ ।

उद्देश्य

प्रस्तुत लेख 'नेपालको वैदेशिक रोजगारी र विप्रेषण : एक अध्ययन' विगत २०५०/०५१ देखि २०७१/०७२ सम्म वैदेशिक रोजगारीमा गएका नेपाली कामदारहरूको विवरण, आर्थिक वर्ष २०७३/०७४ मा देशमा प्राप्त विप्रेषणको अवस्था र २०७३ मा प्राप्त विप्रेषणको सदुपयोगको अवस्थालाई मुख्य उद्देश्य राखेर अनुसन्धान गरिएको एक अनुसन्धानात्मक लेख हो ।

अध्ययन विधि

उपर्युक्त लेख २०५०/०५१ देखि २०७१/०७२ सम्म वैदेशिक रोजगारीमा गएका नेपाली कामदारको विवरणको अवस्था, आर्थिक वर्ष २०७३/०७४ मा देशमा प्राप्त विप्रेषण र आर्थिक वर्ष २०७३ मा प्राप्त विप्रेषणको सदुपयोगको अवस्थालाई अध्ययन गरेर लेखिएको लेख हो । अध्ययनका लागि द्वितीय श्रोतबाट तथ्याङ्क लिई प्राप्त तथ्याङ्कको प्रस्तुति र विश्लेषण गरी निष्कर्ष निकालिएको छ । साथै अन्य आवश्यक सन्दर्भ सामग्रीहरू विभिन्न पत्रपत्रिका, लेख, रचना र सरकारी तथ्याङ्क प्राप्तिको मुख्य स्रोतका रूपमा लिइएको छ ।

तथ्याङ्कको प्रस्तुति र विश्लेषण

हाल नेपाल सरकारले विश्वका १०८ देशमा मेनपावरमार्फत र १६७ देशमा व्यक्तिगत तवरले श्रम स्वीकृति दिने गरेको तर ७ देशसँग मात्र श्रम सम्झौता गरेको छ । श्रम सम्झौता गरेका देशमध्ये पनि इजरायल, जापान, जोर्डन जाने कामदारहरूको सङ्ख्या अत्यन्तै कम छ । ठूलो सङ्ख्यामा कामदार जाने देशहरू जस्तै मलेसिया, साउदी अरेबिया जस्ता देशहरूसँग श्रम सम्झौता हुन सकेको छैन ।

नेपालबाट वैदेशिक रोजगारीमा गएका कामदारहरूको लगभग ठूलो हिस्सा अदक्ष जनशक्ति बाहिर जाने गरेको र आ.व. ०५०/०५१ देखि ०७१/०७२ सम्मको अवस्था हेर्ने हो भने ४३, ४५, ४६० जना कामदार श्रम स्वीकृति लिएर वैदेशिक रोजगारीमा गएको सरकारी तथ्याङ्क छ । आर्थिक वर्ष २०५०/०५१ देखि ०७१/०७२ सम्म देशगत रूपमा कामका लागि वैदेशिक रोजगारीमा गएका कामदारहरूको देशगत विवरण यस प्रकार छ ।

तालिका १: वैदेशिक रोजगारीमा गएका कामदारहरूको देशगत विवरण ।

मलेसिया १४,०८,६६६	कतार ११,६३,६२८	साउदी अरेबिया ९,०२,८२३	युएई ५,२७,२१३	कुवेत १,१७,६९०
बहराइन ४७,९६२	ओमान २८,९९१	द. कोरिया ३४,७२१	लेबनान १२,१९७	इजरायल ८,५७६
अफगानिस्तान ९,०९५	जापान २०,५२२	अन्य ६३९७६		

स्रोत: वार्षिक प्रतिवेदन २०७२/०७३, वैदेशिक रोजगार विभाग, २०७४ ।

पछिल्लो समयमा रोजगारीको गन्तव्यका रूपमा दक्षिण कोरिया बन्दै गएको र कोरियन रोजगार अनुमती प्रणाली (इपियस) सुरु भएयता सन् २००८ देखि २०१८ को सुरु सम्ममा ५०,४२४ जना कोरियन भाषा परीक्षा उत्तीर्ण गरी कोरिया पुगिसकेका छन्। जुन सङ्ख्या आ.व. २०७२/०७३ मा ३४,७२१ मात्र थियो।

खाडी मुलुक र मलेसिया जाने कामदारका लागि सरकारले ल्याएको निःशुल्क भिषा र टिकटको नीतिले विदेश जाने युवालाई प्रभाव पार्छ भन्ने सोचेर नीति ल्याए पनि सो हुनसकेन। सरकारले नीति ल्याएको वर्ष कामको खोजीमा विदेश जानेको सङ्ख्या केही घटेको र केही वर्षपछि बढेको छ। आर्थिक वर्ष ०७१/०७२ मा भन्दा आर्थिक वर्ष ०७२/०७३ मा निःशुल्क भिषा र टिकट नीति लिएको वर्षमा २० प्रतिशत वैदेशिक रोजगारीमा जानेको सङ्ख्या घटेको थियो। खड्का (२०७४,साउन) का अनुसार हाल नेपालबाट श्रम स्वीकृति लिएर विदेश जानेको सङ्ख्या आ.व. २०७०/०७१ देखि आ.व. २०७३/०७४ सम्म क्रमशः आ.व. ०७०/०७१ मा ५ लाख २७ हजार, आ.व. २०७१/०७२ मा ५ लाख १२ हजार, २०७२/०७३ मा ४ लाख १८ हजार र आ.व. २०७३/०७४ मा ६ लाख ५५ हजार पुगेको छ। यसरी तथ्याङ्कमा हेर्दा आर्थिक वर्ष २०७३/०७४ मा वैदेशिक रोजगारीमा जानेको सङ्ख्या हालसम्मकै उच्च रहेको तथ्याङ्कले पुष्टि गर्दछ। यसरी हेर्दा देशमा विद्यमान रोजगारीको समस्या, तीव्र औद्योगिक विकासको अभाव, कृषिमा आधुनिकीकरणको अभाव, कृषिमा व्यवसायीकरणको समस्या, गरिबीको समस्या एकातिर छ भने अर्कोतिर कतिपय युवायुवतीहरूमा काम गर्ने तीव्र इच्छा, चाहना, क्षमता साथै उत्सुकता हुँदाहुँदै पनि देशमा क्षमता, दक्षताअनुसार रोजगारीको अभाव भएको कारण कामको सिलसिलामा विदेसिने कामदारको सङ्ख्या दिनानुदिन बढिरहेको छ।

विप्रेषण र विप्रेषणको सदुपयोग

वैदेशिक रोजगारीमा जाने कामदारहरूले कमाएर स्वदेशमा पठाउने पैसालाई विप्रेषण भनिन्छ। नेपालमा २०४६ सालको राजनीतिक परिवर्तनसँगै २०६२/०६३ सालसम्मको समयमा भएको राजनीतिक अस्थिरताका कारण देशमा रोजगारीको सुरक्षा हुनुका सट्टा बौद्धिक युवा शक्ति पलायन (Brain Drain) को निरन्तरता भयो जसले गर्दा एकातिर देशमा रहेको सक्रिय श्रमशक्ति बाहिरियो भने अर्कोतिर देशमा भएका प्राकृतिक स्रोतहरूको उचित प्रयोग र सदुपयोग हुन सकेन र सकिरहेको छैन। विप्रेषणको प्रभाव ग्रामीण इलाकामा पूर्वाधार निर्माण गर्नेतिर भन्दा गाउँबाट सहरहरूमा सुविधाको खोजीको कारण जनसङ्ख्या विस्थापित भएको अवस्था देखिन्छ। जसले गर्दा ग्रामीण साधन श्रोतको सदुपयोगको सट्टा ग्रामीण क्षेत्रका जमिनहरू बाँझो हुने अवस्था र जनसङ्ख्याको ठूलो हिस्सा सहर केन्द्रित भएको कारण सहरी सेवा सुविधामा ठूलो जनसङ्ख्याको हिस्सा रहेको पाइन्छ। बेल्लासे (२०७४) को अध्ययन अनुसार विगत तीन आर्थिक वर्षको विप्रेषणको अवस्था हेर्ने हो भने पछिल्लो आर्थिक वर्ष २०७३/०७४ मा २६.८ प्रतिशत विप्रेषण देशमा भित्रिएको थियो। जुन ०७१/०७२ मा २९ प्रतिशत र ०७२/०७३ मा २९.६ प्रतिशत थियो। वैदेशिक रोजगारीमा जाने कामदारहरूले कमाएको पैसा विदेशमा भएको वस्तुको मूल्य वृद्धिका कारण बढी खर्च हुने गरेको कारण विप्रेषण घट्न गएको हो।

खड्का (२०७४, भदौ) का अनुसार आ.व. २०७३/०७४ मा प्राप्त भएको कुल २६.८ प्रतिशत विप्रेषणमध्ये सबैभन्दा बढी कतारबाट ३१.६ प्रतिशत, मेलसियाबाट २४.७ प्रतिशत, साउदी अरेबियाबाट १९.३ प्रतिशत, संयुक्त अरब इमिरेट्स बाट १४.२ र कुवेतबाट ३.४ प्रतिशत विप्रेषण देशमा भित्रिएको छ। तर दक्षिण कोरियाबाट प्राप्त हुने विप्रेषण भने अघिल्लो आ.व. मा

भएको १.८ प्रतिशतबाट घटेर आ.व. ०७३/०७४ मा १.५ प्रतिशतमा आएको छ । आ.व. २०७३/०७४ मा नेपाल राष्ट्र बैंकको तथ्याङ्कअनुसार ६ खर्ब ९५ अर्ब रूपैयाँ विप्रेषण नेपालमा भित्रिएको छ ।

तालिका २: आ.व. २०७३/०७४ मा बढी विप्रेषण आएका मुलुकहरू ।

देश	विप्रेषण हिस्सा (प्रतिशतमा)
कतार	३१.६
मलेसिया	२४.७
साउदी अरेबिया	१९.३
संयुक्त अरब इमिरेट्स	१४.२
कुवेत	३.४
दक्षिण कोरिया	१.५

स्रोत: नेपाल राष्ट्र बैंक, २०७३ ।

हाल नेपालबाट श्रम स्वीकृति लिएर वैदेशिक रोजगारीमा जानेमध्ये ९५ प्रतिशत खाडी देश (Gulf Country) र मलेसिया जाने गरेको सरकारी तथ्याङ्कले देखाउँछ र सबैभन्दा बढी विप्रेषणको हिस्सा कतारले ओगटेको छ । हालसम्म प्राप्त विप्रेषणमध्ये खाडी मुलुक र मलेसियाको हिस्सा ९० प्रतिशत रहेको नेपाल राष्ट्र बैंकको तथ्याङ्कले जनाएको छ ।

विप्रेषण हासका कारणहरू

- सरकारी बैंक र वित्तीय संस्थाबाट मात्र विप्रेषण आउनुको आलवा हुण्डीमार्फत पनि विप्रेषण आउने गरेको कारण पनि सरकारी तथ्याङ्कमा विप्रेषण घटेको विज्ञहरूको अनुमान छ ।
- आ.व. २०७१/०७२ को तुलनामा आ.व. ०७२/०७३ मा भण्डै १ लाख कम कामदार विदेश गएको कारण पनि विप्रेषण घट्न गएको हो ।
- मध्यपूर्वको कतिपय गन्तव्य देशमा राजनीतिक अस्थिरताका घटना र अन्तर्राष्ट्रिय अर्थतन्त्रमा त्यसको प्रभावका कारण पनि रेमटेन्स घट्न गएको हो ।
- अन्तर्राष्ट्रिय स्तरमा भएको वस्तुको अत्याधिक मूल्यवृद्धि र गन्तव्य देशमा आधारभूत आवश्यकताका वस्तुमा परेको मूल्य वृद्धिको असरले पनि विप्रेषण घट्न गएको हो ।
- कतिपय गन्तव्य देशमा जाने कामदारलाई दिइने पारिश्रमिक अत्यन्तै न्यून भएका कारण पनि विप्रेषण कम आएको र विप्रेषण घटेको आँकलन पनि गर्न सकिन्छ ।
- कतिपय कामदारहरू सुविधाभोगी, सौखिन भएको र बिलासिताका वस्तुमा फजुल खर्च गर्ने गरेको कारण पनि विप्रेषण घटेको हुनसक्छ ।

विप्रेषण खर्च/सदुपयोग

वैदेशिक रोजगारीबाट प्राप्त हुने विप्रेषणको समुचित उपयोग भएमा मात्र देशको आर्थिक विकासमा टेवा पुग्ने हुन्छ । विदेशमा कडा श्रम गरेर कमाएको पैसालाई उत्पादनमूलक क्षेत्रमा उपयोग गर्नका लागि एकातिर सरकारी स्पष्ट नीतिको अभाव र अर्कोतिर बहुसंख्यक अदक्ष श्रमशक्ति विदेसिने भएको कारण विप्रेषण मध्ये ८० प्रतिशत रकम अनुत्पादक र बिलासी वस्तु उपयोगमा खर्च हुने गरेको छ । देशमा आ.व.२०७३/२०७४ मा दैनिक उपभोग्यवस्तुमा भएको ४.५ प्रतिशत मूल्यवृद्धिका कारण पनि विप्रेषण बचत र पूँजी निर्माणमा असर हुन गएको देखिन्छ । खड्का (२०७४, असार)वैदेशिक रोजगारीमा गएका अधिकांश कामदारहरूको परिवार विप्रेषणमा नै दैनिक जीवन गुजाराका लागि आश्रित हुने गरेको छ । कुल विप्रेषण मध्ये दैनिक गुजारामा ७८.९ प्रतिशत, ऋण तिर्न ७.८ प्रतिशत, घरायसी सामान खरिद गर्न ४.५ प्रतिशत, शिक्षामा ३.५ प्रतिशत, पूँजी निर्माण गर्न २.५ प्रतिशत, बचत ०.६ प्रतिशत र व्यवसायमा मात्र ०.५ प्रतिशत खर्च हुने गरेको छ । केन्द्रीय तथ्याङ्क विभागका अनुसार देशका ५६ प्रतिशत घरधुरीमा विप्रेषण आउने गरेको छ । देशका गाउँघरमा विप्रेषण त पुग्यो मात्र २.५ प्रतिशतमात्र पूँजी निर्माणमा लगानी भएको अवस्था छ ।

तालिका ३ : विप्रेषण खर्च/सदुपयोग ।

विप्रेषण खर्च	प्रतिशतमा
दैनिक गुजारा	७८.९
ऋण तिर्न	७.८
घरायसी सामान खरिद	४.५
शिक्षा	३.५
पूँजी निर्माण	२.५
बचत	०.६
व्यवसाय	०.५

स्रोत: केन्द्रीय तथ्याङ्क विभाग, २०७३ ।

नेपाली श्रम बजारमा प्रवेश गरेका अधिकांश युवा जनशक्ति विदेश पलायन हुन थालेपछि उनीहरू किन देशमा बस्दैनन् भन्ने कुरामा बहस हुने गरेपनि उनीहरूलाई देशमा नै सुविधा र सुरक्षासहितको रोजगारीको अवसर सृजना गरेर देशको विकासको मेरूदण्डको रूपमा उपयोग गर्नुपर्ने अवस्था सृजना गर्नुपर्ने हुन्छ । देशका युवाशक्ति देश विकास गर्न आवश्यक भएका बेला कतिपय विकासका पूर्वाधार बनाउन जस्तै बाटो बनाउन, पुल बनाउन, विजुली निर्माण गर्न, विदेशबाट महङ्गो मूल्यमा श्रमिक भित्रिरेको विद्यमान अवस्था देख्न सकिन्छ ।

निष्कर्ष

सामान्य सीप नसिकी विदेश जाने कामदारहरूको सङ्ख्या बढिरहँदा नेपाली युवा अंग्रेजीमा “थ्रि-डी” भनिने काम गर्न बाध्य भएका हुन्छन् । सीपमा दक्षता हासिल नगरेका कामदारहरूले डेन्जर (खतरनाक), डर्टी (फोहोरी) र डिफिकल्ट (कठोर) काम गर्नुपर्ने बाध्यता आउँछ भन्ने कुरामा कामदारलाई सचेत गराउनु पर्ने तर्फ सरोकारवालाहरू सचेत हुनु जरूरी छ । सामान्य अर्थमा जुन कामका लागि कामदार चाहिएको हो त्यही काम जानेकालाई मात्र दक्ष जनशक्ति भन्ने गरिन्छ । विदेशमा डकर्मी, सिकर्मी, प्लम्बर, क्लिनर, वेटर, ड्राइभिङ्ग, ब्युटिसियन, इलेक्ट्रिसियन जस्ता सीप जानेका कामदारहरूको माग बढी हुने गरेकोले त्यस्ता जनशक्ति उत्पादन तर्फ चाहिने आवश्यक पूर्वाधार निर्माण गर्न पनि सरोकारवालाहरू सचेत हुनु जरूरी छ ।

देशको अर्थतन्त्रको महत्वपूर्ण हिस्सा ओगटेको विप्रेषणलाई उत्पादनमुखी क्षेत्रमा सदुपयोग गर्न जरूरी छ । दोस्रो विश्वयुद्धका समयमा तत्कालीन अमेरिकी राष्ट्रपति फ्रेड्रिकलिन डी रूजभेल्टले युद्धका त्रासका कारण अमेरिकाबाट विदेश पलायन हुने युवालाई मध्यनजर गर्दै अमेरिकामा बाटो बनाउने (Road Construction), रूख रोप्ने (Tree Plantation) र राष्ट्र निर्माण (Nation Building) गर्ने कामका युवालाई परिचालित गरी आजको समुन्नत अमेरिकाको विकासको खाका कोरेका थिए ।

तत्कालीन अवस्थामा देशमा विद्यमान रोजगारीको सुनिश्चितताको अभावको बाध्यात्मक कारण विदेशिने युवा युवतीको सङ्ख्या बढेको छ । देश संधीयतामा गइसकेको कारण कामदारलाई सहज र सरल तरिकाले गन्तव्य देशमा इच्छुक कामदारलाई जाने वातावरण बन्नु जरूरी छ । साथै विप्रेषण बृद्धि गर्न, प्राप्त विप्रेषण सदुपयोग गर्न र सुरक्षित वैदेशिक रोजगारीको ग्यारेन्टी गर्न निम्न काम गर्न जरूरी छ ।

- वैदेशिक रोजगारीका कारण देशमा गरिवी न्यूनीकरण र कामदारको घरपरिवारमा आर्थिक अवस्था र जिवीकोपार्जनमा सुधार आएता पनि पुँजीनिर्माण क्षेत्रमा मात्र २.५ प्रतिशत खर्च भएको पाइन्छ । यसलाई सुधार गर्न नीतिगत र व्यवहारिक सोच र कदमको जरूरी आवश्यक छ ।
- कामदारलाई गन्तव्य देशमा जानु पूर्व सीप विकास तालिम, अभिमुखीकरण, प्रशिक्षण, चेतनामूलक कार्य गर्न जरूरी छ ।
- देशमा बेरोजगारी कामदारलाई वैदेशिक रोजगारलाई नै दीर्घकालीन बेरोजगारी समस्या समाधानका रूपमा नलिई देशमा नै रोजगारीको व्यवस्था र स्वरोजगारतर्फ उपयुक्त वातावरणको खोजी हुनु जरूरी पर्दछ ।
- वैदेशिक रोजगारीका लागि नयाँ राम्रा सम्भावना बोकेका विकल्प गन्तव्य देशहरू तर्फ कामदारलाई आकर्षण गर्नको लागि उचित पहल गर्नुपर्छ ।
- कामदारलाई वैदेशिक रोजगारीमा जाने प्रक्रिया सरल र सहज रूपमा उपलब्ध गराइँनु पर्ने र गन्तव्य देशमा पनि काम, पैसा, काम गर्ने समय, वीमा लगायत सेवा सुविधाको ग्यारेन्टी गरिनु पर्दछ ।

- कामको सिलसिलामा जाने ठूलो सङ्ख्याका अदक्ष श्रमिक (Unskilled Labour) लाई क्षमता अनुसारको तालिम, सीप सिकेरमात्र गन्तव्यमा जानको लागि अभिमुखीकरण गर्न आवश्यक छ ।

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DAMAK CAMPUS JOURNAL

Vol. 8

Number 1

March 2020

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ISSN: 2565-4772

DAMAK CAMPUS JOURNAL

A Publication of Research Articles
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DAMAK CAMPUS JOURNAL

Vol. 8

Number 1

Mar. 2020

पुस्तक : नेपाली भाषाको विकासमा योगदान, लेखक : डा. रामचन्द्र पौडेल, २०१३-१४, १०० पृष्ठ, १००० रु.

Vol. 8

Number 1

March 2020

