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Editorial

Kalika Journal of multiple- disciplinary studies is an annual peer – reviewed research journal related to different areas of social sciences, natural sciences, education and management. It attempts to furnish the research articles in multidisciplinary aspects. The editorial board is grateful to all contributors for their contribution. We are also indebted to all reviewers who have a significant contribution in this regard. The present volume has included eight manuscripts. These manuscripts really reflect the essence of real research.

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Matrimonial Practices among Muslims of Pokhara

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ABSTRACT

Study of religious minorities keeps greater importance in a country like Nepal, where Hindus constitute the majority of the population. Marriage is a normal societal phenomenon and common in Nepali society. Muslims marriage is curious and not common to the majority religious group of Nepal. Marriage is a contract between bride and groom for the purposes of legal intercourse, child propagation, and the social contract between husband and wife. Muslims perform their marital rituals according to Sariat. The marriage of Muslims is directed by the faith itself, according to the Holy Quran. Muslim marriage has long been curious to non-Muslims because of its uniqueness. As a result, an attempt has been made to address this issue. This article is based on qualitative research and aims to outline the critical measures to be taken throughout marriage. To generalize the subject, an observation approach, in-depth interviews and library research are being used. As responders for the goal of gathering knowledge, Muslim scholars, masjid Committee Members, Moulana and elderly people from Miya Patan of Pokhara who have witnessed such rites were chosen. Because they desired anonymity, the responders are referred to as Res. 1. , Res.2., Res.3, Res.4 and so on. This research looks on Muslim marriage, a unique and traditional marital practice in Nepal. It makes an attempt to address the general situation of Muslim marital practice in Miya Patan of Pokhara. In Nepal, particularly in Pokhara, people have forgotten the value of marriage in the name of modernization. Muslims of Pokhara have protected the society's social standards and cultural values of marriage which should be learn from them.

Keywords: Dowry, groom, Muslims bride, Nikah, Sariat, valid, witness,.

INTRODUCTION

Marriage is a contract for the purposes of regulating intercourse, procreation of children, and social life in the interests of society by establishing both rights and duties for the parties involved in this social contract, as well as between the parties and the children born from the aforementioned union. Marriage among Nepali Muslims, regardless of their identities, is governed by the faith itself. It is because Muslim marriage rituals are based on the Quran. Nepali Muslims practice the classical Nikaha system and the Muslims of Pokhara do the same. The Nikah celebrations are quite basic. A ring and a set of clothing is given to the bride. However, as a result of the influence of other cultures, Muslims have adopted several additional traditional customs. They have followed dowry customs. In addition, elaborate feasts are prepared for weddings. It is worth noting that the majority of Nepalese Hindus execute their marriage rites in the months of Baishak, Jestha, Ashad, Mangsir, Magh, Falgun, and Chaitra—nearly seven months according to the Nepali calendar—but Muslims do their marriage ceremonies in those months when Hindus do not. It is the polar opposite of the Hindu marriage system.

Marriage is a basic human right of all citizens worldwide, and it is prevalent in Muslim civilization. Other religious people, with the exception of Muslims, must follow civil code in Nepal, which means they can marry a single woman till divorce; however, Muslims who follow Islamic law can legally marry four wives at the same time, which is unusual to Nepali society. Muslim women have been exploited in the name of marriage rituals. Nepal is a secular republic, and national law applies to all citizens, including Muslims, throughout the country. In their ceremonies, however, Muslims follow Muslim law rather than national law.

Some national and international papers attempted to address various aspects of Nikaha (Muslim marriage) and its practice, but they did not cover all areas as well as the situation of Pokhara. Khan (2071BS) presents general information on Nepali Muslims. His book focuses on the socioeconomic position of Nepali Muslims in Kapilvastu. His book neither deals with rituals of Nepali Muslims nor the Muslim marriage practice.

The Muslim Communities of Nepal by Seddon (2018) is based on a field study report. It focuses on the socio-cultural and political situations of Nepali Muslims in Terai. It is also not focused on Islamic marriage practice. "Halala Nikah: Marriage Against The Dignity of Muslim Women?" by Nidhi Khare and Radhika Singh (2016) is a critical review of Halala marriage in the context of the Indian legal system. This article basically focuses on the Halala marriage – a typical type of Muslim marriage system but it doesn't cover the traditional Muslim marriage

system of Nepal.

Thapa (1985) conducted a significant study on Marriage and Divorce. This report is based on a micro analysis of Muslim settlements in Birgunj. It focuses on the history of Nepali Muslims as well as the practice of Nikaha and Talaq, doesn't covers the raised research question.

These literatures are beneficial in identifying research challenges and generating ideas. It provides research ideas and assistance in analyzing the current state of research on Muslim marriage. It is also useful for developing research techniques for research, but it does not address the general features of the Muslim marriage system and its practice in Nepal as well as in Pokhara. The listed national and international publications, books, and studies attempted to address various facets of marriage, but they did not cover the entire picture. These literatures do not support the study questions asked, however they are somewhat useful in fulfilling theoretical features of the Muslim marriage system. This article aims to identify some unidentified flaws in Muslim marriage practice in general.

DATA AND METHODS

This article is based upon a qualitative analysis. Explanatory, descriptive, analytical as well as informative method has been used in this research. Both formal and informal discussions were held with the concern stakeholders. This research consists of present context data but some historical references are cited in the appropriate places. Basic source of information for this research is primary information. Relevant books, journal articles, online websites and related publications have been used properly. All the information collected has been classified summarized, analyzed and some reflection has been made for this research.

This study is limited to historical study of Muslim marriage of Miya Patan of Pokhara. Four respondents were chosen for in-depth interview to collect the first hand primary data. All the collected data has been coded and analyzed through thematic analysis procedure. This study has been organized around Durkheim's theoretical paradigm. It is not exactly acknowledged in this study, although theoretical references have been used to conceptualize the idea. This study doesn't cover the social, political, legal, economic and other aspects of Muslim marriage

RESULTS AND DISCUSSIONS

To execute the marriage ceremony, Muslims follow certain customs. There are various rituals that must be performed in order to complete the ceremony.

Selecting the Bride

The selection of the bride is the most essential and significant phase in marriage. The boy's parties are continually on the lookout for a female who shares their goal for a happy married life. A Nepali Muslim is looking for a woman who would make an exceptional housewife because Muslims women are normally not allowed to work outside. Marriage occurs primarily inside own group or among close relatives. In the case of inter-faith marriages, however, the groom must have converted to Islam and have to pay a fee decided by community elders as a penalty for breaking religious law (Res.2). However, in general, the wife must be converted to Islam after that, and the son is not valued. If a girl marries a man, she loses all contact with her parents if the son-in-law does not convert to Islam (Res.1).

The Muslim follows the Islamic marriage system, which demands the permission of both the boy and the girl. Muslims marry throughout their adolescence. However, late marriage occurs in some educated homes. In narratives, the daughter may deny the choice for her father, but in fact, she does not (Res. 3). Marriages are always planned, appointed, and negotiated by the guardians. When they uncover or become aware of the girl, they hire a mediator, who converses back and forth with the girl's father. When everything is completed, the boy and girl may meet at the girl's house to make a final offer in Parda (Curtain) (Res. 2). As a result, the girl's consent is requested as a formality at Nikah because most marriages are based on the parents' likes and dislikes, as well as the nature of other secondary variables. This method gave birth to a Tarai custom of not seeing one other before marriage. Even in Pokhara, the girls might not be able to visit her spouse before the wedding. There are now, however, options to meet others before settling on marriage (Res.4).

In the Tarai and hills, child marriage is still popular among Muslims. The average marriageable age for a Muslim man is 16 and 12 for a Muslim woman (Thapa, 1997). As a result, Muslim youngsters in rural Tarai marry before reaching the constitutionally required marriage age. Despite the fact that the legal marriage age in Nepal is 20 for girls and 37% of girls marry before the age of 20, and 10% girls marry before the age of 15. In Nepal, boys marry at a younger age, albeit in lesser numbers than females (Thapa, 1997). According to the Human Resource World Report 2020, Nepal has the third highest rate of child marriage in Asia, after only Bangladesh and India. Child marriage is more prevalent in underserved and lower caste locations (Human Resource World Report, 2020). Muslims in Pokhara are well-educated, and such conduct is not common among them. In this aspect, the marital practices of Pokhara's Muslims are markedly different. Early marriage is not popular among the Muslims

of Pokhara (Res.3).

Following the presentation of the information, both parties search for and learn about crucial aspects about each other in order to assess if it is acceptable to contract for a marital connection or not. Various Muslim groups want such links with families of comparable social standing. It is critical in divorce proceedings. Saiyed, Sheikh, Pathan, and Mughals want higher social status and feel superior in all social interactions. The Ashraf- Ajilaf dichotomy (higher – low status) is also significant in marriages (Thapa, 1997). Saiyed, Sheikh, Pathan, and Mughals were considered as higher statue because they belong to Prophet family and other castes such as Ansari, Dhobi, Dhuniya and so on belongs to low status in hierarchical order. As a result, an Ashraf will never marry into a household of occupational Muslims. The social status concept is entirely retained while choosing a bride and groom. As a result, marriages must essentially be entered into with families of equal rank (Thapa, 1997). But recently Muslim marriage became modernized and such traditions are slowly forgotten. However, there are a few cases of inter-caste or inter-religious marriages between high ranking Muslims and occupational Muslim castes and with non-Muslims. Some Muslims, however, believe it makes no difference and have highlighted Islamic concepts of equality and fraternity. However, diversity remains the most influential component in Muslim culture, particularly in Nepal's Terai area (Thapa, 1997).

Stages of Matrimonial Practice

Although it is not a secular occurrence, Muslim marriage always necessitates a variety of ceremonial rituals. During the wedding ceremony, Muslims follow numerous phases of rituals (Res.3).

Engagement (Nisvat)

Engagement, or Nisvat, is the first step in a Muslim marriage. With the fixing of the day to contract marriage of the Nikah, it symbolizes the ultimate decision. Sweets and fruits are presented to the girl's father, and the day of Nikah is later set. It is the happiest day of the year. As a result, the girl's father expresses his joy by distributing sweets to his family. (Res.1)

Initially, the bride parties travel to the boy for festivities, and vice versa. They present the groom with new clothing, candy, and a sum of money. The quantity of cash and in-kind gifts depends on the family's financial capabilities. However, it has nothing to do with Islamic tradition or religious words. As a result, such behaviors are forbidden in Islam. These sorts of customs among hill or Kathmandu Muslims are the result of customary traditions practiced by

their Tarai counterparts. At the time, dowry is also available (Res.2).

As a result, marriage in Pokhara differs from Muslim marriages in Tarai or those living in the highlands, at least in terms of Matrimonial traditions. The current Magani tendency differs from the method that was used in the Muslim community many years ago. The primary distinction is dowry, which Kathmandu's Muslims practice. When people form weddings in India, it is required to offer or receive dowry, and so in the Terai as well. This is not a habit of Pokhara Muslims, but they are following their Indian counterparts, and Terai is increasingly popular in Kathmandu and Pokhara (Res.1). If the festival of Eid falls between marriage and the Magani, both parties will effectively celebrate Eid. As Eid gifts, the bride's father sends sweets, garments, and rupees to the groom, and vice versa. However, impoverished Muslim households see it as an additional responsibility and hence do not follow it (Res.1).

Maulud

Maulud or Miladunnabi is one of the major parts of the marriage ceremony that took place just one day before. The Maulabi emphasizes the Quranic citation and validity of marriage, as well as other elements of marriage . He consistently motivates individuals to conduct weddings in accordance with Islamic ideals as stated in the sacred scripture. However, it is difficult to track due to the nature of the pattern of socio-cultural changes observed in Muslim societies in Nepal, particularly Muslims in the highlands. As a result, Maulabi's theological explanation at Miladunnabi has remained almost a ceremonial celebration rather than its application in actual life (Res.1).

Nikah (Marriage day)

A grand feast is arranged in both the houses. The married women give *Sandal pest* or *Ubtan* to the groom. The other day, they organize marriage procession and depart to the bride's house. The parade is led by a musical band. Within the clan or others, the procession is made up of relatives, friends, and community members. Samdin and the groom are escorted by two married ladies disguised as brides. The groom adorned in a brocaded Sherwani. This is not now popular in Pokhara. However, they now wear casual attire and use automobiles in procession. In Tarai, rural Muslims employ cars, rickshaws, Tractors and Tangas are also used in bridal processions. They are treated to a lavish feast at the bride's house. (Res.1)

The Nikah rites are performed either throughout the day or at night. Every Nikah must include Quranic citation in the presence of two adult witnesses, the kazi and the bride. This is a practice that they do not share with their neighbors. The groom is given a silver ring weighing

11.6 grams, known as a tola, according to Islamic tradition. (Res.2) However, Muslims believe that it is not enough to present him with gold jewellery. Rich households usually give the groom a dowry that includes a large number of gold jewellery. The Muslims of Pokhara, who have undergone a high level of socio-cultural change, typically embrace such non-religious traditional activities (Res.2).

Nikah is observed only with the agreement of both the bride and groom. Marriages are often concluded under duress and with the approval or disapproval of guardians. As a result, the bride must always provide a favorable response when asked. Normally, she is unable to withstand the pressure (Res. 4). However, such a decision is unlikely to be made by some educated Muslim households.

They spend one night at the bride's residence and return the next morning with the bride. She is greeted by two ladies at her husband's home, and she pays respect to all the family elders. On the next day, family gather to meet and congratulate the bride, bringing gifts such as sweets and fruits. She is returned to her parents' home after four days. After four days, the groom is asked to accompany his wife back to his home. (Res.1)

Mehr

Mehr, also known as dowry, is an amount of money or other property in kind that the woman is entitled to receive from the husband in exchange for the marriage. It is the personal property of the bride to safeguard her life during divorce (Res.3).

The quantity of Mehr, known locally as Mehrdani, is a crucial part of Nikah. It is her right, not the bride price. It is a must for any marriage to be valid. It is usually established verbally or in the Nikahnamah. It comes in two varieties: Mehr-E-Muwajjal (prompt) and Mehr-E-Muwajjal (continuous). The timely Mehr is due at the moment of demand or before the death or divorce.

Mehr is a tradition practiced by Muslims in Pokhara. However, they adhere to the later sorts of Mehr, which are payable at any moment. It does not forbid marriage from being consummated. The quantity of Mehr is determined by both partners' agreement. In this regard, the bride's party is always eager to fix a large sum. The significance of a large sum is that it reduces the likelihood of divorce. If the sum is greater than the husband's ability to pay, he generally ignores it and is pressured not to divorce the wife. However, the vast majority of Nepalese Muslims, especially those in Pokhara, do not pay it. As a result, women are excused when their spouse is on his death bed- *Mehr Bakash* (Res.2).

A Muslim wife has the right to seek the return of the Mehr. However, in general, Muslim

women in Nepal do not seek to regain more of it over their lifetime. However, they are entitled to all of Mehr's rights. As a result, the spouse has no claim to the money he has already paid. Even if the marriage does not work out, she gets fairly paid.

Though this conventional behavior is contrary to Islam's ethos, it is nonetheless practiced. It is provided in both cash and in kind. The sum is decided by numerous secondary variables, including the bride's father's financial capacity.

Rukhsat

After the Nikah, the wedding party returns the next day. On the bride's departure, the women of the party perform somber goodbye songs. Rukhsat, or seeing off, is a type of ceremonial behavior that is strongly ingrained in Muslim civilization.

At the same time, male elders from both side observes Dolhahari. (It is typical to introduce each other at the moment of marriage.) They introduce themselves throughout the ceremony. The groom's father then offers the groom betel nuts. The Parchhaun ritual is observed when the boy returns home. It is intended to give the bride a warm welcome, which is followed by singing (Res.3). She sits in a chamber where other ladies come to observe and admire her beauty on the first day. She is not permitted to handle utensils or enter the storeroom until she has served the family delicious Kheer. (Res.1)

Nowadays, marriage in Muslim society has absorbed several rituals other than Islamic faith, however the basic component of marriage is directed by Quranic quotations. The influence of other Hindus influenced Muslim marriage to become more complicated. It has gotten costlier and has adopted a variety of other cultural customs. The Nepali Muslims performs interreligious as well as traditional marriages in the families of equal social status or beyond these days. Regarding the interreligious marriage either the son-in-law or the daughter-in-law is converted to Islam. Otherwise all relations ceases at once (Res.1).

CONCLUSION

Marriage is more than just a tradition; it is a commitment between two individuals to tackle life's challenges. Marriage became so formal as a result of a society's modernity and westernization in Nepal. Now, before marriage, sexual relations between girls and boys became common in Nepali society. These days, new phenomena such as live-in relationships, relationships, and unnatural relationships are frequent. Modernization of the civilization is heading toward western culture in the name of freedom of the society and women's

empowerment. Marriage has become a joke in the non-Muslim culture these days. People have forgotten the societal and religious virtues of marriage. Now, it became just the license for sexual relations.

Other religious people, in addition to Muslims, have been practicing new sorts of marriage in recent years, such as inter-caste, inter-racial, and live-in together partnerships, but Nepal's Muslim communities have stayed devoted to the traditional Muslim marriage practice of Nikah. They do not go outside of the Sariyat and do not practice ultramodern marriage practices. Other religious group should learn lesson from Nepali Muslims to protect the eastern society's social standards and cultural values.

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Medicinal Value of Cassia Fistula Linn: A Comprehensive Review

Sarika Lamichhane¹, *Deepak Gautam²

ABSTRACT

Nepal is the rich source of NTFPs species which are well known for its medicinal properties. The aim of this review is to collect the information of Cassia Fistula Linn and explore its medicinal importance. Only secondary data were used to finalize this paper. The result shows that among the medicinal plants, Cassia fistula Linn is also one of the crucial NTFP plant holding valuable medicinal properties. Cassia fistula Linn is commonly known as Rajbriksha and Bandar ko lathi in Nepali. It is also known as a yellow shower tree due to its beautiful and attractive yellow flowers. All parts such as seeds, flowers, bark, leaves, fruits, roots of this tree possess great importance of medicine. It is considered as one of the important valuable medicinal tree. In traditional medicine, this tree is used to cure various diseases such as fever, bronchitis, leprosy, dry cough, skin disease, heart problem, constipation, diabetes, malaria, stomach disorder, burning sensation. Rajbriksha possess various pharmacological activities such as antiinflammatory, anti-diabetic, antiperiodic, anthelmintic, anti-oxidant, anti-fertility activities. It also possess diuretic, febrifuge, tonic, laxative, cooling, purgative properties. The fruit, bark, leaves, seeds, flowers, roots contain numerous chemical constituents like calcium, iron, potassium, manganese, lipeol, tannins, glucosides, sennosides, rhein, fistulin, alkaloids, acetate, flavonoids. This article aims to provide the review on morphology, distribution, chemical constituent, traditional uses of Cassia fistula Linn.

Keywords: *Cassia fistula linn, pharmacological, rajbriksha, traditional medicine*

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INTRODUCTION

Nepal, a geographically diverse country that comprises 3.2% of the total flora of the world (GoN, 2014) is the rich source of NTFPs species. There are more than 700 plant species that are recognized as Non-Timber Forest Products (NTFP) out of which 150 species are internationally traded (Shrestha et al.2020). NTFP play an important role in the economy of Nepal. About 80% of the population from rural areas of our country depend on NTFP for living. Out of a total of 15% from forestry sector, NTFPs provide 5% of Nepal's national GDP (Pyakurel & Baniya, 2011).

Many people are turning to medicinal plants in order to pursue the health approaches and remedies that are devoid of negative side effects (Danish et al.2011). In Nepal, the use of medicinal plants have been practiced many years back because of lack of adverse side effect and easy availability (Acharya & Acharya, 2009). Indigenous people from all over the world employ plants as ethnomedicine (Miya et al.2020). NTFPs provide medicines, nutrients, wood, fodder and construction materials for rural people (Shrestha et al.2020) and the collection of NTFP serve as the main source of employment for them (Lamichhane et al.2021). Plants are used in traditional as well as modern medicine and are considered as natural remedies to cure many diseases and illness (Pariyar et al.2021). In Nepal, there are more than 1950 plant species that are used as medicine (Ghimire, 2008). Therefore, NTFPs is considered as the crucial part in the livelihood of people and economy of Nepal. Out of which *cassia fistula Linn* is also one of it.

Cassia fistula Linn, a very common deciduous tree from family Fabacea is commonly known as Rajbriksha in Nepali. It is grown as shade and ornamental trees around the houses. Traditionally, it is also used in the event which is called as "vishukkani" on the day of vishu that is the first day of the Zordiac calendar which means that the first thing seen on the day of vishu after waking up (Kumar et al. 2017). *Cassia fistula linn* is a flowering ornamental tree that can attain height up to 15m (Khatri et al. 2021). Because of its beautiful yellow colored flower, it is also known as Golden shower tree. *C. fistula* is native tree from tropical Asia. It is popularly known as Indian Laburnum in English and is semi wild in nature that has broad range of therapeutic properties. Medicinally, the whole part of this tree has been used as Ayurveda medicine for the treatment of various diseases mainly for pregnant women and children (Ali, 2014) and possess various pharmacological activities and numerous phytochemicals. Different parts of this tree are used in home remedies as well as Ayurveda medicine to treat various disorders (Panda et al.2011). The plant has also been used as decoction, powder or

combined either alone or in conjunction with other therapeutic plants (Pawar et al. 2017). These therapeutic uses, chemical constituent and the medicinal characteristics of *cassia fistula* has proved it as valuable medicinal plant (Danish et al.2011).

DATA AND METHODS

All the information and data in this article are collected using secondary method of data collection. They were based on the articles gathered from internet like Google scholar and Research gate. Altogether, 40 articles were gathered and studied. The keywords such as *cassia fistula linn*, rajbriksha, medicinal plant, phytochemistry, pharmacological were used to search the article. This methodology is demonstrated in depth with the help of Prisma flowchart.

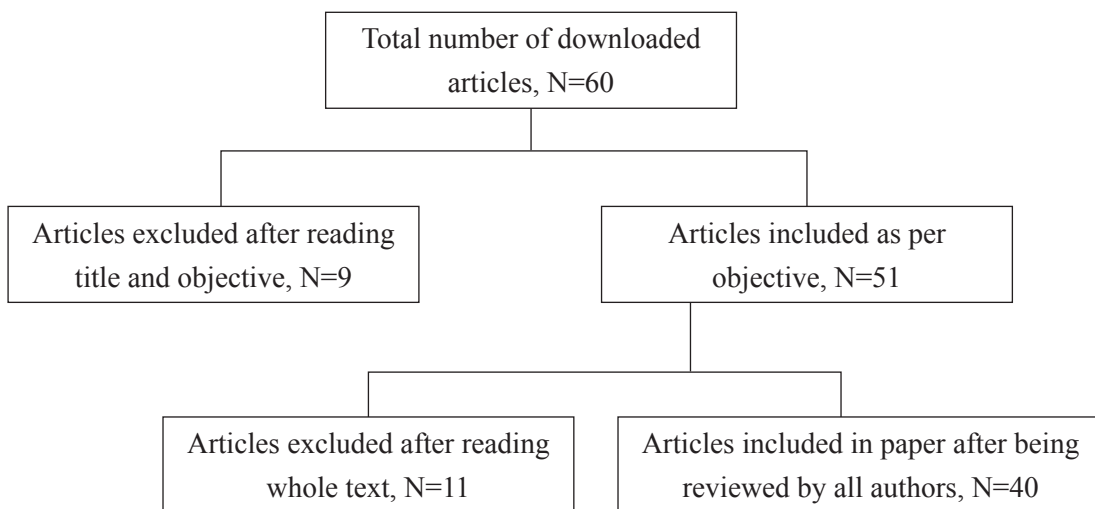


Fig 1: Prisma flowchart for the study of medicinal values of Cassia Fistula Linn.

RESULTS AND DISCUSSION

Table 1

Taxonomic Classification of Cassia Fistula Linn (Rahmani, 2015)

Kingdom:	Plantae
Sub kingdom:	Tracheobinota
Super division:	Spermatophyta
Division:	Magnoliophyta
Class:	Magnoliopsida
Sub class:	Rosidae

Order:	Fabales
Family:	Fabaceae
Genus:	<i>Cassia</i>
Species:	<i>Fistula</i>

Table 2

Local Names of Cassia Fistula Linn (Khatri et al.2021)

Nepali:	Raj briksha, Badar ko lathi
Chepang:	Briksha
Tharu:	Airoks kathwa, Ahirodha
Tamang:	Gle Mhendo
Raute:	Rajbrik
Sanskrit:	Saraphala, Argwadha, Rajtaru
English names:	Indian laburnum, Golden shower, Pudding pipe tree
Trade name:	Indian laburnum

Distribution: *Cassia fistula linn* is native to Nepal, Malaysia, Burma and East India (Satyal et al.2012). It is considered that *cassia fistula* have been originated from South East Asia and was distributed throughout the tropics. In Nepal, it is distributed between (100-900) m elevations. It is extended to the greater part of India up to the altitude of 1300 meter in the outer Himalayan part in mixed monsoon and deciduous forests (Bhalerao and Kelkar, 2012). It is distributed throughout Asia, china, Brazil, south Africa and West Indies and is usually found throughout gangetic valley (Pawar et al. 2017). It prefer dry climate and open slope. Fruiting of rajbriksha takes place in the month of October and flowers in between the month of May and August (Khatri et al.2012). It can grow on granite, stone and trap soil as well as on shallow and poor soil but perform well in well-drained soil with full exposure of sun (Gupta, 2021).

Description: *Cassia fistula* is the fast growing moderate sized tree which can attain 30-40 feet height. It comprises of composite (4-8 pairs) leaves up to (5- 12) cm length. The bark of this tree is pale gray in color and smooth when young and dark brown and rough when old. It is semi wild in nature consisting bright yellow flowers. The fruit of Rajbriksha is 30-60 cm long cylindrical pod which is 20-27 mm in diameter. The pods are straight or are slightly curved, cylindrical, and pendulous and are shiny. They are smooth but are finely striated which consists of many black seeds (25-100 in each) and sweet pulp which is separated into segments transversely. Each compartment is filled with sweet black pulp and one seed. Seeds are flat, reddish brown, oval with well-marked raphe which are 8mm long and 5mm thick. Seeds are embedded in dark colored sweet pulp. Pulp is sweet in taste, have sharp odor, sticky with gelatinous consistency which is dark brown or black in color. The long pod are green in color

when they are unripe and turn on to black on ripening. Root is rough and reddish brown in color which consists many horizontal lenticels. Flowers are yellow in colour which is (30-50) cm long racemes, pubescent, obtuse, long and slender (Gupta, 2021; Bhalerao and Kelkar., 2012; Danish et al., 2011).



Fig 2: Tree, Flowers and Leaves of Cassia Fistula Linn

Chemical constituent: Different parts of Rajbriksha contains various amounts chemical constituents. There are two kinds of metabolic composition of *c. fistula* extracts they are primary metabolic composition and secondary metabolic composition (Bhalero and Kelkar, 2012). Seeds, pods, leaves and fruit are the major source of primary metabolites whereas the organs of *c. fistula* (vegetative and reproductive) are of secondary metabolites. Chrysophanol, malvalic acid, amino acids, volatile oil, waxy and resinous derivatives are found in seeds (Mwangi et al.2021). A stem bark powdered is rich in hexacosanol, lupeol, B- sitosterol and tannins (Sen & Shukla, 1968). The edible fruits are rich in calcium, potassium, iron and manganese than other fruits like orange, peach, apple and apricot (Barthakur et al. 1995). Glucosides, free rhein, sennosides A and B are found in leaves (Mahesh et al., 1984; Kaji et al., 1968) and flowers include alkaloids, fistulin, triterpenes and acetate. Root of cassia fistula is rich in Rhamnetin-3-0-gentiobioside. Vegetative organs such as young leaves, twigs, old leaves and bark and reproductive organ such as flowers, flower bud and pod is rich in proanthocyanidins, flavonoids (Luximon-Ramma et al. 2002).

PHARMACOLOGICAL ACTIVITY

Anti-wound Healing Activity

Cassia fistula is used to heal the infected wound. The extraction from leaves is considered

to have anti-bacterial effect against *Pseudomonas aeruginosa* and *Staphylococcus aureus*. It was tested in albino rat which shows the better wound closure and better tissue regeneration (Kumar et al.2006).

Central Nervous System Activity

The methanol extraction from seed was experimented upon mice. This extraction increased the sedative action of diazepam, chlorpromazine, meprobamate and sodium pentobarbitone and also increased analgesia caused by pethidine and morphine. This also cause change in behavior of mice (Bhalero et al.2012).

Anti-diabetic Activity

Anti-diabetic potentiality of total alcoholic extracts and ethyl acetate from bark was studied in rat. It shows depletion in blood glucose level compare to alcoholic extracts (Malpani and Manjunath, 2010) and the extraction from its pod showed anti-hyperglycemic activity which is used in treating diabetes mellitus (Jangir and Jain, 2017).

The anti-diabetic efficacy of fruit was studied in rat using petroleum ether extract (Akhila & Aleykutty, 2015) and root was examined by using glucose diffusion assay and alpha amylase inhibition (Balraj et al. 2016).

Anti-pyretic Activity

The methanol extraction from pod is found to have antipyretic activity. It was found higher due to individual action or combined action of extracts of amino acids, flavonoids, steroids and glycosides (Singh et al.2012).

Anti-oxidant Activity

90% ethanol extracts from leaves and 90% methanol extracts from stem bark, flowers and pulp possess antioxidant properties. These showed dose-dependent protective effect in kidney and liver against free radical and lipid peroxidation (Siddhuraju et al.2002) and this property of *C.Fistula* have mutual connection with phenolic content of extraction of methanol (Irshad et al.2012).

Anti-inflammatory Activity

The methanolic extraction from bark of *C.Fistula* was found to possess anti-inflammatory activity in both chronic and acute model (Ilavarasan et al.2005).

Anti-microbial Activity

Extractions from leaves was found to have anti-fungal activity and root extraction and stem bark was found to have antibacterial activity. In comparison to drugs, the hydro alcoholic extract from this tree are found to be more effective in fungi and microorganism and can treat many infectious disorders caused by microbes (Bhalodia & Sukhla, 2011).

Anti-itching Activity

It is found that the extractions from this have significant use in treatment of eczema which is chronic skin disease.

Anti-tumor Activity

The methanolic extractions from seeds was tested on mice and Ehrlich ascites carcinoma. It showed increment in life span of mice and lessen of tumor volume (Gupta et al. 2000). Extractions from this tree also improve red blood cell, bone marrow, hemoglobin content.

Ovicidal and Larvicidal Activity

The methanolic leaf extraction of this tree was tasted for ovicidal and larvicidal activity which showed it is the ovidical and larvicidal agent against *Anopheles stephensi* and *Culex quinquefasciatus* (Govindarajan et al.2008).

Anti-ulcer Activity

The ethanol extraction from leaf was found to have antiulcer activity against gastric ulcer (karthikeyan & Gobianand, 2010).

Anti-fertility Activity

The petroleum ether from seeds was tested for anti-fertility activity in female albino rat. It showed that it comprises pregnancy terminating effect (Yadav & Jain, 1999).

Anti-leishmanial Activity

Hexane extracted from fruits showed antileishmanial activity against promastigote form of *leishmania* (Sartorelli et al. 2007).



Fig 3: Pods, seeds, pulp and fruit of cassia fistula linn

Local medicinal uses: In ayurvedic medicine, rajbriksha is also known as disease killer. Rajbriksha has many medicinal uses such as laxative, purgative, cooling, anti-inflammatory, anthelmintic, antiperiodic, febrifuge, diuretic and tonic. It is used in various medicinal treatments like skin diseases, ringworm affections, dry cough, cardiac problems, diabetes, constipation, bronchitis, fever, stomach disorder, malaria, leprosy, burning sensation etc.

For medicinal purposes, all parts of cassia fistula (roots, leaves, fruits and bark) are used. Seeds and fruits are used to cure skin diseases, chest diseases, abdominal pain, jaundice, swollen throat, kidney stones, bronchitis, ulcer, tuberculosis, leprosy, whooping cough, fever and urinary problem. They are slightly sweet in taste and possess antipyretic, laxative, carminative, emetic and cooling properties. They are used for the treatment of urinary problems, hotness of body, diarrhea, gastric, neural disorder and insomnia. Juice of seeds helps to regulate stopped urine and also used to cure snake bite. The fruit pulp helps to treat constipation in human as well as in cattle and black wart fever. The paste of fruit is eaten twice a day to cure whooping cough, diarrhea, jaundice, headache, fever, inflammation in urine, bronchitis and so on. Seed powder is helpful in inducing vomiting and used in ameobiasis. Leaves of cassia fistula are laxative, tonic, febrifuge, antiperiodic and emollient in nature. It is used to get relief from pain and inflammation such as rheumatism and gout. Leaf juice is useful for the treatment of facial paralysis. Leaf paste is beneficial in curing skin problems such as scabies and reduce the burning sensation. It can be applied to treat ringworm, colic, flatulence and helps to heal the wound. The bark and roots of Rajbriksha shows the anti-inflammatory properties. Both chronic and acute swellings can be treated from extracts of this tree. They are highly antioxidants which helps to increase the immune system. Roots are tonic, febrifuge, astringent and strong purgative in nature. The roots have antifungal, antiviral and antibacterial

properties which helps to cure the wound and provide protection against infection. Root juice helps in treatment of fever, malaria, asthma, swellings, dropsy and respiratory disorder. It is used in joint pain, chest pain, blood dysentery migraine, cardiovascular disarrangement and nausea. The bark of cassia fistula possess anti-dysenteric and tonic properties. It is used in leprosy, syphilis, jaundice, swelling and chest pain. It is also used against amenorrhea and skin disorder (Khatri et al., 2021; Pawar et al., 2017; Ali, 2014).

Other uses: *Cassia fistula* is cultivated as shade trees and an ornamental trees around houses and road sides in many countries like Nepal, China, India, Bangladesh, and Pakistan. Seeds are fed to chickens and hens to cure cattle disease. The pulp is used in tobacco and extracts from this plant helps to control pests and disease. It is also used as fuel wood and produce charcoal of good quality. The wood is durable and hard and produce good timber which is used for a wide range of construction such as furniture, cabinet work, wheels, bridges, farm tools and so on (Khatri et al.2021).

CONCLUSION

From this review, it has been concluded that *Cassia Fistula* is one of the valuable medicinal tree. It is an ornamental tree with yellow flowers, brownish red roots, green pods, and dark brown stem. It has been reported to have various pharmacological properties such as anti-inflammatory, hepatoprotective, anti-fungal, anti-bacterial and so on. This tree is rich in many chemical constituents such as flavonoids, tannins, glycosides, oleic, linoleic, carbohydrate, stearic, rhein and many more. Because of these properties, *Cassia Fistula* is used to treat numerous diseases. It is used to cure fever, cough, stomach disorder, skin problems, constipation etc. It is one of the important therapeutic tree.

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Factors Determining the Involvement of Women in Income Generating Activities: A Case Study in Pokhara Metropolitan City, Nepal

***Surendra Tiwari**

ABSTRACT

Women's participation in income-generating activities (IGAs) appears to be limited in communities of Nepal owing to a variety of socio-cultural and socio-economic variables. Despite the deliberative efforts by governmental and different developmental agencies for the empowerment of women to be participated actively in income generating activities (IGAs), it is unclear yet what factors stimulate Nepalese women's engagement in various earning activities. Against this backdrop, the purpose of this study was to investigate the variables that stimulate the participation of Nepalese women in IGAs in the Pokhara Metropolis. For this purpose, a systematic survey form was used to gather data. A total of 130 individuals were interrogated, comprising 65 women engaged in IGAs (selected purposively) and 65 women, who are not involved in IGAs (selected conveniently and purposively) for making the study more comprehensive. A Binary logistic regression model was applied for finding the factors determining the involvement of women in IGAs. The result of the analysis revealed that literacy status, occupational status and monthly income of family affect the women's involvement in IGAs significantly while age, marital status, caste, family type, number of a family member and age at first marriage do not have any effect on it. The study suggests that it is imperative to make women aware about the importance of involvement in IGAs as this will help them to be self-dependent. The Government of Nepal should focus

on women's education to ensure the necessary knowledge and entrepreneurial skills needed for their effective participation in income-generating activities.

Keywords: Determinants, empowerment, imperative, involvement, poverty, resources

INTRODUCTION

Prevalence of various socio-cultural and socio-economic factors seem to be crucial for limiting the participation of Women in income generating activities (IGAs) in Nepalese. Over a long period of time, women were at a disadvantageous position due to a gender imbalanced relationship that stems from cultural orientation.

Most of the rural women in Nepal are found to be engaged in unpaid works in a private sphere such as caring for children, cooking, feeding, washing, cleaning, nourishing and other household activities. The goods and services that are produced by women are generally consumed within the household, their production does not go through the market mechanism, hence, women's roles in Nepalese communities are found to have only the 'use value' rather than the 'exchange value'.

The majority of work performed by women such as helping extended families and/or neighbors, management of natural resources for collective consumption and use, or for community development, participating in religious, cultural or social occasions in the community etc. remains unpaid and women performed these activities as volunteer labors. All of these activities can't be counted in the country's national production because they can't be accounted for; through a monetary exchange (buying and selling). These activities are assumed to be recreational, performed as leisure in their free time. Nonetheless, women have to perform these activities by extending their working hours for the shake of establishing and affirming social relations, conserving social goodwill or fulfilling social obligations, and conserving and maintaining natural resources. These activities are crucial for maintaining social harmony, for the effective operation of social institutions and networks, and for the management of natural resources that are essential to sustain the local livelihood. Hence women's works are considered to have 'Social Values' rather than 'Economic Values'.

Agriculture accounts for one-third of Nepal's Gross Domestic Product, and around three-quarters of the Nepalese works in the sector (FAO, 2019). In Nepal, the feminization of agriculture is marked by a growing tendency of females in the agrarian work force, with the most of females working on farm and livestock raising. According to the report by FAO

(2019), “The role of women in the sector is crucial, given that over 80 percent of women are employed in agriculture.” However, because the majority of rural women labor as subsistence agriculture producers, their working conditions are precarious. Due to employment-related out-migration of pastoral menfolk, there have been a shifting of the traditional division of labors, with several females taking on extra obligations such as plowing and marketing. The agrarian land has been abandoned, resulting in a decrease in farm productivity due to the scarcity of work force in the rural areas. In Nepal, shreds of evidences suggest that female-managed farms yield less value per hectare than male-managed farms, implying that gender disadvantages persist, especially in terms of accessing, adopting, and utilizing technology. Man and woman agricultural producers frequently have significantly different sets of farming know-how, abilities, and criteria when it comes to picking kinds of crop and executing activities like planting, growing, harvesting, and processing crops (FAO, 2019).

According to the Nepal economic survey report (2019) shows that 16.67 percent of Nepalese people are still living at the absolute poverty line. To begin with, and most importantly, the burden of poverty falls unfairly on females leading to humanitarian deficiency, in terms of nutritional food, schooling, as well as humanitarian advancement possibilities as well as unnecessary work load. There is a significant financial disparity between males and females, together in the form of job/income generating prospects and the share of received money; consequently, female remain to live in poverty. According to Nepal Labor Survey Report (2018), “There were approximately 20.7 million people of the working age and approximately 7.1 million were employed while 908 thousand were unemployed. This translated into an unemployment rate of 11.4 percent. Females reported a higher unemployment rate of 13.1 percent, which is 2.8 percentage points higher compared to males (i.e., 10.3 percent). There are huge disparities in other labor market indicators between females and males, such as; female employment-to-population (EPR) is 22.9 percent, which is 25.4 percentage points lower than male EPR and female labor force participation rate (LFPR) was 26.3 percent compared to the male LFPR (53.8 percent).” Females make up 31% of all paid workers, while men make up 69 percent (CBS, 2002a).

For their family’s survival, females from ultra-poor homes typically engage outside the home as hired laborers (ADB, 2001). However, despite legislative regulations for pay equity for male and female, research has revealed a significant gender-biased wage difference across the nation, which is notably noticeable in the agriculture sector: females earn roughly 25% less than males (FAO, 2019). Nepal labor force survey report (2018) also shows that “Nepalese

employees earned an average (mean) of Rs.17,809 per month. However, gender disparities were obvious in the mean monthly earnings gap between males and females, on average male earns 19,464 per month and a female earns 13,630 per month i.e., Rs. 5,834 in favor of males. Women also remain poor due to the lack of access to and control over productive resources (such as land, natural resources, financial and entrepreneurial capital).

Women's business potential has yet to be fully realized. In a country like Nepal, where acceptable jobs and agricultural land are rare, creating self-employment options will be the most crucial method for families to increase earnings and thus increase their chances of meeting basic needs. Women's engagement in IGAs is projected to help households in coping with financial distress, ensuring food sustainability, escaping poverty, and prevent susceptible families from sliding underneath the severe poverty. Women's income is imperative for economic prosperity and the long-term development of the nation, so policymakers should prioritize their economic contributions (Kabeer, 2003). Unfortunately, Women have been prevented from fully participating in IGAs by prevailing sociocultural possibilities and structures. To alleviate rural women's anguish and bring them into the mainstream of development in order to achieve a sustainable livelihood, they must become much more actively involved in income-generating activities. Furthermore, they must ensure the improvement in a variety of areas, including earning, know-how, awareness, skills, schooling, access to capital, and using the facilities of intermediary organizations.

Beside official programs, a lot of non-governmental organizations (NGOs) are operating in the countryside of Nepal, focusing on rustic womenfolk to help them transform their lives. Despite many purposeful attempts by various development organizations to empower women and enable them to actively engage in earning activities, it is still unclear what factors influence Nepalese females' participation in various IGAs. Given this context, this study intends to determine the variables influencing women's engagement in earning activities in the study area, as no previous research has been done on the subject.

DATA AND METHODS

This study has adopted the multi-stage sampling technique. At first stage, Pokhara Metropolitan City was selected purposively. At second stage, two wards i.e. ward 30 and ward 31 of this Metropolitan City were chosen purposively for this study. At third stage, information was collected from 130 respondents i.e. 65 (45 from Ward 30 and 20 from Ward 31) women who were involved in some sort of income generating activities and get registered in Lekhnath

Chamber Commerce and Industries (LCCI) and 65 (45 from Ward 30 and 20 from Ward 31) women who were not involved in such type of income generating activities. Structured questionnaire was used for data collection. Binary logistic regression analysis was carried out to find the determinants of women's engagement in earning activities.

RESULTS AND DISCUSSION

Basic Information of Respondents

Basic information of respondents includes frequency and percentage distribution of the categorical variables related to the demographic (such as; age, marital status, caste/ethnicity, religion, family type and size, literacy level, No. of children, age at first marriage, sources of income, occupational status etc.) and economic (such as; monthly income, ownership of house, land and others assets, control over capital and other resources and investment etc.) characteristics of the women. Table 1 shows the basic information of respondents in the study area.

Table 1 reveals that a great majority of women get currently married (81.5%). A relatively higher percentage of such women (41%) are Janajati followed by Brahmin (38%), Dalit (13%) and Chhetri (8%) respectively. A significantly great majority (94.6%) of women are Hindu. Three fifth of them (60%) were residing in a nuclear family. More than half of them have completed formal schooling (55.4%) followed by literate/informal schooling (36.2%) and illiterate (11%) respectively. Relatively a higher percentage of them have business/industry as their main source of family income (36.9%) followed by agriculture (25.4%), remittance (19.2%), service/job (6.2%), daily wages (5.4%), others (4.6%) and pension only (2.3%) respectively. A relatively higher percentage of women are found to be skilled (42.3%).

Table 1 also presents that nearly a quarter of them have ownership of a house (23.8%). Relatively a higher percentage of women have control over capital in association with their husband (38.5%) followed by self (26.9%), other members of the family (17.7%) and their husband (16.9%) respectively. Comparatively a higher percentage of women have control over their own income in association with their husband (40.0%), followed by self (32.3%), other member of family (16.2%) and their husband (11.5%) respectively. A Relatively higher percentage of women have ownership in land and other assets controlled by other members of family (29.2%) and their income get used by them in association with their husband mostly (42.3%). The majority (60%) of women don't have any investment in any kind of income

generating activities.

Table 1

Distribution of Respondents by Demographic Characteristics

Characteristics	Frequency	Percent
Marital status		
Never married	14	10.8
Currently married	106	81.5
Widow	10	7.7
Caste/Ethnicity		
Brahmin	49	38
Chettri	11	8
Janajati	53	41
Dalit	17	13
Religion		
Hindu	123	94.6
Buddhist	4	3.1
Muslim	3	2.3
Family type		
Joint	52	40
Nuclear	78	60
level of literacy		
Illiterate	11	8.5
Literate/Informal schooling	47	36.2
Formal schooling	72	55.4
Income source of family		
Agriculture	33	25.4
Business/Industry	48	36.9
Service/Job	8	6.2
Daily wage	7	5.4
Pension	3	2.3
Remittance	25	19.2
Others	6	4.6
Occupational status		
Unskillful	36	27.7
Semi- skilled	39	30.0
Skillful	55	42.3
Ownership of house		
Yes	31	23.8
No	99	76.2
Control over capital		

Self	35	26.9
Husband	22	16.9
Self and husband	50	38.5
Other member of family	23	17.7
Control over own (respondent's) Income		
Self	42	32.3
Husband	15	11.5
Self and husband	52	40.0
Other member of family	21	16.2
Ownership of land and other Assets		
Self	27	20.8
Husband	31	23.8
Self and husband	34	26.2
Other member of family	38	29.2
User of respondent's income		
Self	41	31.5
Husband	15	11.5
Self and husband	55	42.3
Other member of family	19	14.6

Table 2

Descriptive Statistics

Variables	No.	Min	Max	Mean	SD	Skewness		Kurtosis	
						Stat	SE	Stat	SE
Age	130	19	78	36.48	11.465	1.138	.212	1.726	.422
Family size	130	1	12	4.97	1.876	.718	.212	1.446	.422
Age at first marriage	130	11	35	17.41	6.917	-1.220	.212	1.947	.422
Monthly income	130	1500	600000	21723.08	57709.042	8.256	.212	79.798	.422
Monthly income of family	130	5000	1000000	71207.69	96714.612	7.350	.212	67.247	.422

From table 2, it is observed that the minimum age of women is 19 yrs. and the maximum age is found to be 78 yrs. The average age is 36.48 years. with a standard deviation 11.46 yrs. The family size of women ranges from one to twelve members. On average each family consists of 4.97 members with a standard deviation 1.87. During the study, it was found that some of the ladies were wedded at their lower age so age at first marriage ranges from 11

yrs. to the maximum of 35 yrs. On an average these women married firstly at an age of 17.41 yrs. with a standard deviation of 6.91 yrs. The maximum level of monthly income among the women is NRs. 600000 and minimum level NRs. 1500. On an average they earn NRs. 21723.03 with standard deviation of 57709.04 Nepalese rupee. Similarly, the monthly income of each family ranges from NRs. 5000 to NRs. 1000000. On an average, each family earn NRs. 71207.08 with a standard deviation of NRs. 96714.612.

Standard deviation statistics of some of the variables (monthly income and monthly income of family) being greater than the value of respective mean statistics show that there is a significant variation in monthly income and monthly income of the family (Table 2). It means some women have maximum monthly income while others have minimum or even zero and some women's families have maximum income while others' have a minimum income.

Skewness and kurtosis statistics of most of the variables (age, monthly income and monthly income of family) being significantly greater than 1 reveal that the real value of the variable is not normally distributed (Table 2).

Factors Determining Women Involvement in Income Generating Activities

The predicted variable i.e., involvement in IGAs has two options i.e. Yes or No. for the purpose of finding the determinants of involvement, No is used as reference category.

Table 3 provides the odds ratio of logistic regression coefficients, associated p values, and 95 percent confidence interval for each variable. From the fitted model, literacy status, occupational status and monthly income of a family of the respondents had a substantial influence on the involvement of ladies in IGAs. The odds ratio of literacy status is 4.85 which indicates that as the formal schooling level of women increases, there is 4.5 times more likely to be involved in IGAs. This could be due to the fact that with formal education, women will be able to better comprehend and execute their tasks, which could lead to an increase in their earnings. Education improves women's status by giving them autonomy for decision-making, exposing them to the contemporary world, and providing them with knowledge (Jejeebhoy, 1992; Kishor & Guptha, 2004). With education, women's ability to comprehend and be aware of their position improves substantially (Rahman & Naoroze, 2007). Higher education, on the other hand, has the impact of diminishing traditional conservative standards and taboos that obstruct the lives of rural women (Parveen & Leon hauser, 2004). Women may be empowered by educational outcomes to seek and preserve their privileges so as to alter and progress their current circumstances.

Similarly, skilled woman has 5.5 times more likely to be involved in IGAs than unskilled

woman. This result is similar to the study of Dangol (2010). Likewise, as the monthly income of the family increases, women are 8.2 times more likely to be involved in IGAs. Furthermore, age, marital status, caste/ethnicity, family type, no. of family member and age at first marriage do not have significant effect on involvement in IGAs.

For the goodness of fit, Hosmer Leeshaw's chi-square statistic is 9.55 with P value 0.298 which implies that the model fits the data at an acceptable level. Here Cox & Snell $R^2 = 0.431$ and Nagelkerke $R^2 = 0.575$ which indicates that (43.1 to 57.5) % of the variation in the degree of involvement has been explained by the covariate.

Table 3

Odds Ratios from Logistic Regression Models of the Degree of Involvement of Women in IGAs (n= 130)

Factors		B	S.E.	Sig.	Exp(B)	95% C.I. for EXP(B)	
						Lower	Upper
Age		-.013	.028	.641	.987	.935	1.042
Marital status	Unmarried (RF)						
	Married	-.001	.932	.999	.999	.161	6.208
Caste/Ethnicity	Others (RF)						
	BBrahmin/chhetri	.434	.569	.446	1.543	.506	4.705
Family type	Nuclear (RF)						
	Joint	.467	.673	.487	1.596	.427	5.963
Family size		-.085	.183	.644	.919	.642	1.315
Literacy	Informal schooling (RF)						
	Formal schooling	1.579	.603	.009*	4.848	1.487	15.814
Occupational status	Unskilled (RF)						
	Skilled	1.713	.549	.002*	5.546	1.891	16.268
	Monthly income	2.109	.738	.004*	8.244	1.940	35.032
	Age at first marriage	.077	.052	.141	1.080	.975	1.197
	Constant	-5.938	2.082	.004	.003		

-2 Log likelihood=106.698; Cox & Snell $R^2=0.431$; Nagelkerke $R^2= 0.575$; H and L Chi-square=9.553 and P=0.298, RF = Reference category, *p<.05

Source: Field Survey, 2019

It is found that literacy status, occupational status and monthly income of a family of the respondents had a significant effect on the involvement of women’s in IGAs. However, age, marital status, caste/ethnicity, family type, no. of family member and age at first marriage do not have a significant effect on involvement in IGAs. It shows that literacy status, occupational

status and monthly income of family are the major determining factors for women's involvement in IGAs.

CONCLUSIONS

Literacy, occupation and monthly income of family have direct and substantial effect on women's participation in income-generating activities, whereas age, marital status, caste/ethnicity, family type, number of family member and age at first marriage do not have significant effect on involvement in IGAs. It is imperative to make women aware about the importance of involvement in IGAs as this will help them to be self-dependent. The government of Nepal should keep women's education in a priority to ensure necessary knowledge and entrepreneurial skills needed for their effective participation in income-generating activities.

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History of Nepalese Tourism Industry

***Arjun Bahadur Bhandari**

ABSTRACT

Tourism is not a new phenomenon in Nepal. People had been travelling by different means since ancient times when the modern concept of tourism was not introduced. Due to the Rana autocracy, Nepal was closed to the international visitor. After the restoration of democracy in 1950 Nepal government has recognized tourism as a key vehicle of development. Many developing countries are incorporating tourism into their industrial value and government of Nepal also has recognized tourism is as a high-paying industry and a key source of revenue which was priorities in tourism policy. Nepal's Tourism Policy-2009 focuses on enhancing quality, accumulating foreign reserves, and creating job opportunities to help Nepalese people improve their living conditions and protecting environment for its sustainability. Nepali tourism saw ups and downs between 1999 to 2021; including an Indian plane hijacking, a Royal massacre, a decade-long Maoist insurgency, an international economic crisis, the 2015 earthquake, and the COVID-19 epidemic. Since its inception, the Nepali tourist sector has struggled. Despite the government's priority, the private sector has established itself as a high-paying enterprise. This article is based on qualitative research and aims to address historical development of tourism in Nepal. Descriptive and analytical methods were used in this research to investigate the history of Nepali tourism industry. In-depth interviews and library research are being used to gather data about the subject. It is limited to historical study on the subject. Finding of the research can be generalized to study the entire situation of tourism in Nepal.

Keywords: *Tourism Industry- Professionalism- Revenue -Sustainability- Tourism policy.*

INTRODUCTION

Touring and traveling have existed since the dawn of civilization and is an important feature of human culture. Tourism is not a new phenomenon; if we see prehistory we would discover that humans have been moving from place to place for around one million years (Kunwar, 2006). It is not a novel concept to Nepal as western scholar defines. Different words for tourism evolved from the root *atan*, which signifies leaving home for a period of time to visit other locations (Negi, 1982), such as *paryatan*, *deshatan* and *tirthatan* to represent tourism. Such phenomenon was in practice before the practice of modern tourism concept. Nepal was the hub of international visitors in ancient and medieval period but because to the Rana Policy Nepal was isolated from international interaction until 1950. In 1950-51, the Ranas were deposed by a popular democratic movement. Changes occurred, Nepali people were emancipated, and the country was opened to foreigners again (Ojha, 2018). Prior to the 1950s, just a few tourists were permitted to visit Nepal by the Rana dictatorship.

Tourism is now acknowledged as a high-paying business industry and a significant source of income. After the establishment of democracy Government of Nepal has priorities tourism as a key vehicle for national development. For the development of tourism government has formulated tourism policy in different time frame. Nepal Tourism Policy 2009 focuses on improving quality, collecting foreign reserves, and generating job opportunities to help Nepalese people for their better living standards. Nepali tourism industry after crisis is in improving condition so it the right time to focus on sustainable tourism for the local people and preserves the potential for the future visitors. Many developing countries like Nepal are trying to incorporate fundamental of sustainable principles in the industry to achieve sustainable tourism goal. Nepal has a lot of opportunities in the industry thus the government policy must be integrative, collaborative and comprehensive.

Many of the studies conducted by the native and foreign scholars describe tourism. Wall (1982) defines temporary migration as the temporary relocation of persons to locations other than their regular areas of work and housing, the activities undertaken during their stay in such regions, and the facilities established to meet their requirements. Touring and traveling have been around since the start of civilization and are an integral part of human culture (Kunwar, 2006). Tourism is not a new phenomenon; in fact, it dates back to antiquity. Archeology would reveal that humans have been traveling from place to place for around one million years. For Hindus, this is not a fresh idea. Negi (1982) states that tourism terms developed from the root *atan*, which means to leave home for a length of time to visit other places such as *paryatan*

(going out for pleasure). These literatures don't support the raised research questions but it is partially helpful to conceptualize the history of Nepali tourism business. The gap left by the previous studies has been chosen as a research problem for this research.

DISCUSSION

Until 2019, tourism was in flux. International visitor visits in Europe surpassed 1.4 billion in 2018, a 6% increase over 2017. In 2018, 343 million foreign tourists visited Asia and the Pacific. Arrivals in South Asia increased by 5%, in South-East Asia by 7%, and in Oceania by 3%. Arrivals in North East Asia grew by 3%. In 2018, 217 million foreign visitors visited North America, while 67 million tourists visited Africa. In 2018, the Middle East rose by 10%.

According to the United Nations World Tourism Organization the number of international tourists declined by 65 percent in the first half of 2020 compared to the same time in 2019. COVID-19 and the lockdowns imposed by several nations in 2020 have led in a considerable decline in international travel, resulting in a loss of 440 million foreign arrivals and about \$460 billion in worldwide tourist income. International tourism was in decline from 2008 until 2021. Tourism has geared up since 2022. Tourism's recent expansion demonstrates that it is now one of the most significant drivers of economic growth and development. According to the world travel and tourism council (2017), travel and tourism contributed 10.4 percent of global GDP and supported 313 million jobs, or 9.9 percent of overall employment in 2017, corresponding to one out of every eleven jobs in the global economy. By 2026, it was expected to provide approximately 370 million employments worldwide.

Tourism in Nepal

Nepal used to be a popular tourism destination. During the ancient time, Emperor Ashoka, a great traveller, visited Lumbini, the birthplace of Lord Buddha (Regmi, 1970). Huen Tsang, a famous Chinese explorer, stopped at Lumbini, Nepal on his way to India in 636 A.D. Pai Yan, another Chinese adventurer, visited Lumbini in 430 A.D. (Khatiwada & Dahal, 2010). Since ancient times, Nepal has been considered a holy destination for both Buddhists and Hindus due to the birthplace of the Buddha and Sita and the existence of Pashupatinath. Both Hindus and Buddhists have traveled to Nepal to pay tribute to fearful shrines in various locations (Collier, 1989). Mallas, the kings of Medieval Nepal, were interested in welcoming pilgrims who visited Nepal since pilgrims are responsible for promoting tourism. The number of visitors visiting Nepal was low due to a lack of transportation and other infrastructure. At

the time, the bulk of visitors to Nepal came from India and China (Ojha, 2018). Since ancient time Nepal has been priorities by the visitors as a tourist destination.

Ancient Period

Tourism in Nepal was seen differently in ancient times. According to Buddhist mythology, the Buddhist mystic 'Manjushree' entered Kathmandu Valley and slashed the Chovar Hill with his sword to allow water to flow (Sharma, 2033). He emptied the water and took up residence. Manjushree is supposed to have arrived in Nepal as the first tourist from Mahachin. According to the chronicle, Gautam Buddha visited Nepal during the reign of Jitedasti, the seventh Kirat King, who remained in the western section of the country, near Swayambhu. However, Nepalese historians disagree. There is no evidence of Buddha's visit to Kathmandu. They believe that Buddha never visited Kathmandu (Khatiwada & Dahal, 2010).

Emperor Ashok had also been to Nepal. King Ashok went to Lumbini, Lord Buddha's birthplace, and constructed the Ashok Pillar there. He subsequently proceeded to Kathmandu and constructed identical pillars in several locations (Ojha, 2018). According to the inscription, Emperor Ashoka visited Lumbini and Kapilvastu during his tour. He also carved another inscription in Niglihawa. Ashoka's visit to Kathmandu was only recorded in chronicles, which were not considered reliable sources for scientific history writing. It has never been proven historically. Four Ashoka-style pillars discovered in Patan may have been constructed by others dispatched by Ashoka (Khatiwada & Dahal, 2010).

Licchavi Period

From the standpoint of tourism, the Lichchhavi period was regarded as the golden era. Art and culture advanced dramatically during the Lichchhavi era (400 A.D. and later). The main attractions of the Lichhavi era were Kailashkut Bhawan, Managriha, and Bhadradiwas Bhawan. The way art and culture were growing in Nepal at the time prompted Chinese tourists to visit and write about Nepal (Ojha, 2018).

The marriage of Bhrikuti and Tibet's King Srong-sten Gampo resulted in the development of special connections between the two kingdoms (Sharma, 2033). As a result, individuals from these countries naturally traveled from one to the other. Following that, for a long time, Nepal was the sole way to reach China via Lhasa and to go from China to India via Lhasa. This resulted in an increase in foreigner arrivals in Nepal (Ojha, 2008).

Huien-Tsang, a famous Chinese adventurer, began his voyage to India in 629 A.D. In 643 A.D., he returned to China through Nepal. Huien-Tsang visited Lumbini on his trip to

Nepal. Another Chinese adventurer, Li-Yi-Piao, arrived in Nepal through Lhasa in 643 A.D. and subsequently went to India. Another Chinese adventurer, Wang Hiuentse, used to travel to and from Nepal with his companions while serving as an ambassador to India from 643-657. During the Licchhavi period, Buddhist monks, monastics, and preachers visited Nepal, including Shantarakshit in 742 A.D., Padma Sambhav in 474 A.D., Kamalsheel in 760 A.D., Atisha Dipankar in 1040 A.D., and Milarepa in 1010 (Pradhan, 1988).

Medieval Period

Following the Licchavis, the Mallas ruled Nepal. This is referred to as medieval history. Christian missionaries arrived in Nepal during the Malla dynasty with the intention of spreading Christianity in Tibet. Nepal became a transit point for missionary activities. Many foreigners visited Nepal for missionary purposes during this period, up to the reign of Jaya Prakash Mall. During the reign of Laxmi Narshing Malla, king of Kantipur (1620-1641), a foreigner, Portuguese Father Juan- Cabral, reached Nepal for the first time in the medieval era in 1628. Later, more missionaries arrived in Nepal with similar goals. Since 1737 A.D., King Jaya Prakash Malla has granted Christians written permission to reside and preach Christianity in Kantipur (Ojha, 2008).

When Prithivi Narayan Shah captured Kathmandu Valley, he ordered Christian Pastors and Nepali Christians to leave the kingdom. Pastor Giuseppe and 58 Nepali Christians fled Kathmandu Valley on February 4, 1769, to live in India's Bettiah, near the Nepal border (Vaidya, 2003). Foreign visitors visiting Nepal at the time were European missionaries. Furthermore, Chinese, Tibetans, and Indians used to visit Nepal for religious and economic reasons. Similarly, Nepalese businessmen used to travel to Lhasa for business, while Tibetan traders visited Nepal and vice versa. Thus, religious and trading activity had contributed to the development of tourism in Malla period (Khatiwada & Dahal, 2010).

Modern Period

In 1767 A.D., King Prithvi Narayan Shah united the petty hill states into a single and integrated Nepal (1825 B.S.). Until the time of King Prithivi Narayan Shah, Nepal was off-limits to foreigners, particularly Europeans. The advent of tourists in Nepal in contemporary history was established by the William Kirk Patrick Mission in 1792. Despite the fact that Kirk Patrick came to Nepal as a military officer to gather data about the country, his book "An Account of the Kingdom of Nepal" served to promote Nepal to foreigners (Khatiwada & Dahal, 2010).

Following the Treaty of Sugauli in 1816, Wallich was appointed as a British Resident in Kathmandu to enhance Nepal's ties with British India. Following that, British nationals made regular travels to Kathmandu. From 1850 to 1851, Jung Bahadur Rana visited Britain, which played an important role in presenting Nepal to the western world. Sir Brian Hodgson and Sir Joseph Hooker later visited Nepal. During the era of Prime Minister Bir Shamsher, French scholar Silva Levy visited Nepal. He authored a book on Nepal called *History of Hindu Kingdom* in French (which was translated in Nepali language by Dilli Raj Uprety) (Ojha, 2008).

During the term of Prime Minister Chandra Shamsher, Percival Landon visited Nepal. Similarly, in 1911 and 1921, King George V and the Prince of Wales visited Nepal for hunting. The oldest documented record of foreign visitors to Nepal is found in Percival London's book 'Nepal,' (Volume 11, Page 299- 305), where 153 Europeans, largely British, are mentioned to have visited Kathmandu between 1881 and 1925. In 1924, George Mallory and Andrew Irvine attempted to climb Everest but went missing. Other mountaineers were also granted permission to ascend the peak under careful monitoring. Despite these achievements, the Rana kings kept Nepal secluded from outside influence until 1950 (Ojha, 2018).

The year 1950 is a watershed moment in Nepal's history. Prior to the 1950s, only a few visitors were permitted to visit Nepal by the Rana dictatorship. In 1950, Nepali tourism was thriving. Tony Hagen, a Swiss geologist, marketed Nepal to the international audience as the "Switzerland of Asia." Maurice Herzog, a French citizen, became the first person to reach the peak of Annapurna. Sir Edmund Hillary (New Zealand) and Tenzing Norgay Sherpa (Nepal) reached the top of Mt. Everest (8848m) for the first time on May 29, 1953 (Ojha, 2018).

On the other hand, Tony Hagen a Swiss geologist first came to Nepal in 1950 with Swiss development mission. In 1952, he was employed by Nepal government for exploring and mapping geography of Nepal. Nepal issued its first tourist visa to Boris Lisanevich, Russian hotelier invited by King Mahendra Bir Bikram Shah to allow Thomas Cook Company to send tourist in Nepal. Boris established hotel Royal and began catering tourist (Ojha, 2018).

In 1956, National tourism council set up first five-year tourism development plan under Ministry of industry and commerce. Royal Nepal Airlines Cooperation (RNAC) was established in 1958 and became member of International Union of Official Travel Organization. During 1960's Nepal began direct links to Indian cities. First travel agency "Mountain Travel Nepal" now "Tiger Mountain" was established by Colonel Jimmy Robert. He had started "Tiger Tops" in Chitwan National Park to accommodate tourist who enjoy jungle activities. He is regarded

as “father of trekking in Nepal” and role model in teaching and implementing management in tourism of Nepal (Khatiwada & Dahal, 2010)

Nepal became popular tourist destination for the Hippies during 1960’s and 70’s. Hippies who followed radical and liberal anti-war philosophy with “mind exploring” activities such as sex, drug and religion began travelling in Nepal. Hashish and marijuana was legal in Nepal until 1979 when Drug Enforcement Administration was established by Nepal government to discourage use of drug. Hippie played the role of ambassador and keep on telling cultural and natural beauties of Nepal to outer world (Ojha, 2018). The film was pictured about Hippie and their activities in a Hindi movie “Hare Ram Hare Krishna” by late Dev Anand (Respondent 2). In 1972, Tourism master plan was formulated with German assistance that led to concept of spreading economic activity in Nepal (Respondent 1). HMTTC, now Nepal Academy of Tourism & Hotel Management (NATHM) was established by Government of Nepal in 1972 aiming to produce skilled workforce required by hospitality and tourism industry. Chitwan National Park was officially established in 1973 (Ojha, 2018).

During 1975-1991, Nepal became hot spot for holiday makers, adventure seekers and cultural tourist. The flow of tourist increased in Nepalese tourism industry. Downfall of tourism in Nepal started with hijacking of Indian airlines from Tribhuvan International Airport in 1999. Because of Royal massacre (2001) and moist insurgency contributed to downfall until 2006. Tourism slowly started booming after 2006. Nepal marked 2011 as “Nepal tourism year” with slogan “Naturally Nepal” when 736,215 international visitors visited Nepal. Similarly, Lumbini visit year was celebrated in 2012 and government forecasted 2020 as the Visit Nepal year but again industry was suffered from Covid-19 pandemic. After 2022 tourism slowly geared up but the condition is not satisfactory.

CONCLUSION

Nepal, a Himalayan country home to several castes, ethnic and religious groups, is a heavenly land for foreign travelers. Since the country’s opening to international tourists in 1950, the Nepalese government has prioritized tourism. Tourism employs over one million people directly and indirectly and contributes approximately 4 percent of GDP. Nepalese tourism industry has a long history. Due to the political instability and other related issues it faced many ups and downs in the industry. The Nepal government has already priorities tourism as a key component for the development of a country but the will of political leadership and ignorance and incompetency of the bureaucracy it has been facing several issues in the industry. Nepal’s

tourism is failing to reach its objectives due to a lack of appropriate strategy, planning, and programming. Professionalism is a big issue in Nepali tourism industry. Nowadays, the Nepali tourist industry is in crisis because of Covid-19 pandemic as well as other related issues. Now it has geared up after a long rest but still the government authority, concern stakeholders are not aware of the coming days situation. Private sector has contributed a lot to develop the industrial sector without the support of the government which is not enough. To sustain Nepali tourism industry much more have to be done for its sustainability and long-term growth.

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Erotic Abuse on Woman's Body: A Study on *Chapali Height*

***Suresh Raj Dhakal**

ABSTRACT

The issue of the exploitation of female characters by male ones is a popular subject of filmy contents in different movies. In this regard, the paper examines the film Chapali Height in terms of how an innocent girl is sexually reified by two playboys and how she avenges after realizing the treachery. Bini, a young girl, spiritually and physically loves a boy named Amir and elopes with him, leaving her family behind, but Amir abandons her after sucking the sap of her romantic youth. After that, another mischievous boy, Raj creates a drama of love and exploits her sexually. However, the boys, who are the best friend from the past, already have consensus to romance on her body. The internalization of physical exploitation on her body crosses the limit of her aggression which leads the catastrophic end in the movie. In the study, the entire movie is selected as the text for general discussion where the data will be primarily taken from the erotic snapshots of the movie and the persuading dialogues there. Objectification theory of Fredrickson and Roberts (1997) in relation to body politics is taken as the theoretical base. Besides, this study espouses a qualitative descriptive approach to dig out commodification on woman's body by man. The finding of this study shows that the extreme physical exploitation to the female ultimately leads the disastrous result. At the end, the commodified woman kills the men by burying them into the ditch.

Keywords: *Aggression, commodification, exploitation, objectification, treachery, youth*

INTRODUCTION

Brief history of Nepali Film

While analyzing the history of Nepali film, it is found that Nepali film doesn't have the long history. Only after, 2008 B.S, the first movie in Nepali language Satya Harishchandra by D.B Pariyar got produced and released in Bhadra, 2008 B.S. (National Film Policy Drafting Committee, 2013). However, it was produced in Kolkata, India. The film *Aama* (Mother), directed by Hira Singh Khatri and starring Shiva Shankar Manandhar and Bhuwan Chand, was released in 2021 B.S. (Film Development Board, Nepal, n.d.). Adhiraj and Dixit (2020) in their research regarding women's representation in Nepali movie have noted the history of Nepali movie as, "Cinema in Nepal started from 1964 with *Aama* meaning 'Mother, directed by Hira Singh Khatri, the film was produced by the Department of information of the Government of Nepal" (p. 1). It means *Aama* was the first Nepali movie produced in Nepal. However, it was not produced with private banner. The then his majesty's government of Nepal, had taken the responsibility of producing the movie. In the initial phase, Nepali movie didn't have their own style in terms of narrative and song rather they would "use Bollywood-style songs and narrative" (Subedi, 2011) and this tendency remained for a long time because like other aspects, the film sector also remained dependent with other countries mainly India. About this, Adhikari (2018) in her research writes that as a small and developing country, Nepal has always relied on its neighbors, India and China, for business, trade, and imports, among other things, and has learned from their developmental activities. The same is true for Nepal's film industry. Nepali cinema is heavily influenced by Indian cinema. It means Nepali film industry also couldn't be untouchable from the effect of Bollywood. Sumonanjali Films Pvt. Ltd, in 1996, released the first private bannered movie named 'Maitighar' (National Film Policy Drafting Committee, 2013) in the direction of B.S Thapa. Many Indians had their contribution for the production of the movie and mainly Mala Shinha, Chidambar Prasad Lohani, Sunil Dutt and comedian Rajendra Nath were the leading characters.

From the very beginning to the present, the role of women in Nepali movies is not strong as compared to men. In the name of power, sex, gender, roles and responsibilities and politics, the women are considered as weak characters. They are commodified in different ways. For this regard, Adhikari (2018) in her research writes, "Women in Nepali movies continue to be portrayed in traditional stereotypical roles as housewives, caretakers of men, objects of desire and as the second sex while the men continue to dominate the family, workplaces and

public space". It shows that like in patriarchal society, even in movies too, there is not the dominant role of women rather they are badly dominated from diverse ways. However, in the past movies, there was huge social and familial confinement to the women but in the recent movies, much more sexual abuse to the women is seen.

Hence, the study examines the movie *Chapali Height* to analyze how a female character is erotically abused by two males. By analyzing the erotic commodification for a woman, the study adds to the current literature on woman's domination and their reaction regarding the use of objectification theory. Though there are some researches in other Nepali movie, no specific studies have been found upon the movie *Chapali Height*. Ultimately, the study makes me realize that there is the necessity to study on at least one issue of the movie. So, this study opts to analyze the erotic abuse on women's body by males which has resulted catastrophic result at the end of the movie.

Sexual Objectification Theory

Sexual objectification theory is the act of treating the human being as commodity for sexual desire. This theory regards the people as the object. It mainly examines the behavior and the attitude of the people who want to dehumanize other people. Despite the sexual objectification of the male and female in society, the concept of this theory mainly emphasizes the sexual objectification particularly for woman. So, Szymanski et al. (2011) in their research present Bartky's view as "Objectification theory (Fredrickson & Roberts, 1997) postulates that many women are sexually objectified and treated as an object to be valued for its use by others. SO (Sexual Objectification) occurs when a woman's body or body parts are singled out and separated from her as a person and she is viewed primarily as a physical object of male sexual desire" (p. 8). It shows that women are merely taken as the means of sexual objectification. That's why, many feminists argue that sexualizing girls and women contributes to gender inequality. Fredrickson and Roberts first talked about sexual objectification theory in 1997 in their research 'Objectification Theory: Towards Understanding Women Lived Experiences and Mental Health Risks'. In their research, they state how objectification theory imparts the better understanding for the women of their being in the society as they write, "objectification theory is a framework for understanding the experimental consequences of being female in a culture that sexually objectifies the female body" (p. 173). It illustrates that sometime not only the males the women themselves are acculturated to adopt as viewer's perspective on their body. In the movie *Chapali Height* too, the female character Bini, in several scenes has tried to show her body intentionally in front of the male characters. Bini, in one scene presents

herself in erotic dress up in front of Raj and Amir and asks them, “How is my dress?” (Khanal, 2020) and Amir replies that she is sexy. (Khanal, 2012,). It shows that she herself wanted to be objectified.

Regarding sexual objectification theory Bartky in his book remarks that that female’s body is mainly used for the enjoyments of others rather than their own pleasure. When a woman’s body, body parts or sexual functions are separated from her person and reduced to the status of mere instruments, as if they were capable of representing her, this is referred as sexual objectification. (Bartky, 2015). So, women themselves are responsible for being reified erotically in sexual objectification theory.

Generally, majorities of the movies, portray the women characters as less domineering figure as compared to men. Socially, erotically, mentally and financially women are shown as the fragile characters. Regarding social and familial issue, it is seen that in making decisions too, they are shown to be dependent on males. Adhiraj and Dixit (2020) in their study write, “Women in films rely on men to make decisions. Their decision is questioned, and legitimacy undermined through prominent male presence in the films” (p. 8). As in real society, in movies too, the women are deprived to play the decisive role for any sort of tasks.

Not only in social and familial case, the women are treated badly physically. The reflection of the patriarchal society is clearly seen in the movies as well where women are physically exploited. To heighten male characters, women’s abuse is displayed in the movie as “Violence on women is used as a medium to support male character development. On average a woman is seen abused, even raped 5 times per film” (Adhiraj and Dixit, 2020, p. 8). It is understood that the major issues of the movies have been the women’s reification by the males. That’s why; Adhiraj and Dixit (2020) say “Part of the film’s success is its use of benign masochism as women were shown abused, gullible, beaten, and powerless” (p. 20). It is clear that masculine power and hegemony is supplanted in the majorities of the movies. The analysis of such hegemony is found in the narrative of a Bollywood movie *Kabir Singh*. Kharat and Gagare (2020) write that the movie, *Kabir Singh* “tries to glorify toxic and hegemonic masculinity in the narrative with a number of scenes which depicts physical violence” (p. 4). It shows that in Bollywood movie also, the tendency to objectify the women physically is prevalent. The role of the characters in the movies display the relationship between men and women. In comedy movie, rather than critical thinking, emotive attitude of the characters is highly granted than that of action movies. That’s why; You et al. (2019) in their research about characters’ classification in movie say, “The characters of romantic comedy deal with the

affection between men and women using a very high value of emotional tone than analytical thinking. The characters of action genre who need rational judgment to perform mission have much greater analytical thinking than emotional tone” (p. 49). It illustrates that the role of the characters in the movie vary according to the genres of the movie which is likely to display the personalities of the characters as well. For example, in funny and shocking movies, characters of various forms and traits are found. So, it is stated that “in the case of comedy and horror/thriller, they have many kinds of characters and that characters often change their personalities in the story” (You et al., 2019). It means different types of characters frequently change their traits as per the story and nature of the movie.

Not only from the story, but also from the music, the feeling and conviviality of the characters is known in the movie which reveal the emphatic concern of the characters. There is unattachable relationship between the songs and the artists of the movies. In this regard, Hoeckner and Decety (2011) in one of their research projects about relationship between music and characters write that “film music can influence character geniality and the certainty of knowing the character’s thoughts, which are antecedents of empathetic concern and emphatic accuracy. Thus, film music may be regarded as modulating antecedents of empathic concern and empathic accuracy” (p. 146). It shows that there is the close connection between the music and characters of the movie as these two factors are like two faces of the same coin.

The success of the films is related with resemblance of the real-life situation of the society and culture. So, Dahal (2021) in his research about the ethnographical analysis of contemporary Nepali movies says that Films are used to study society, culture, and anything else related to human life from an anthropological standpoint because films are a part of and product of a specific society and culture. What sort of societal and cultural issues are being existed in the society, the films also tend to show the same issues. It means there is the clear nexus between reel life and real life.

Many researchers focus on social, cultural, feminine, masculine and anthropological issues but in contrary the research of Ravid (1999) relates characters of the movies with their business. When popular actor and actress are there in the movie, automatically the business of the movie increases because the audiences don’t want to see unknown faces in the movie. So, he writes that “star studded films seem to have significantly higher revenues whereas films with unknown cast members seem to have significantly lower revenues” (Ravid, 1999). It assumes that there is a close connection between the roles of the star and the business of the movie.

As the shift in Nepali movie, the issues of liberty and the self-sufficiency of minorities have been started to be raised in the movies. So, Shrestha et al. (2021) in their research regarding subaltern consciousness in Nepali cinema have written that the Nepali film industry has provided some hope by producing films that celebrate art as an apparatus for subaltern freedom and autonomy. It indicates a positive transformation which benefits to those who are marginalized. The issues of liberation and self-autonomy in the movie help to subvert the traditional and outdated mode of thinking and help to give the new flavor to the producers, characters as well as the audiences.

In the review, the issues of subaltern, the relationship between the characters and business in the movie, the nexus of reel life and real life, influence of filmy music in terms of genres and the woman's objectification etc. are focused much. However, it is found that nobody has researched on erotic exploitation of woman in the most popular movie *Chapali Height*. Hence, the study examines the erotic abuse on women's body by males and its catastrophic result with the lens of sexual objectification theory.

METHODS AND MATERIALS

The study analyzed the erotic abuse on female's body in *Chapali Height*. In the study, the major source of the data for theoretical framework and literature review is google scholar. Likewise, the entire movie is chosen as the text for general discussion where the data has been primarily taken from the erotic snapshots of the movie and the dialogues there. The sexual Objectification theory of Fredrickson and Roberts (1997) in relation to body politics is taken as the theoretical base. Two major lenses of objectification theory; sexual objectification by males to the female and the self-objectification of female to stimulate the males are taken as the major foundations for analysis. Besides, this study espouses a qualitative descriptive approach to dig out commodification on women's body by men.

RESULTS AND DISCUSSIONS

In the movie *Chapali Height*, one and only female character Bini is initially shown as meek, feeble and fragile character. Because of her such character, she gets easily entrapped with persuasive words of the male characters, Amir and Raj. She blindly trusts them even without assuming their treachery. But when she knows that they are playing upon her body and feelings, her meekness, fragility and feebleness automatically gets changed into courage and accumulating her strength and courage, she becomes successful to take the revenge to them by

killing and burying them into the ditch despite facing various perils. In the research it is found that extreme physical and erotic domination and deceitfulness imposed upon females by the males may lead the disastrous result at the end.



Figure 1: - Bini trying to kill Amir with long spade and stabbing on the belly of Raj as revenge (Source: - snapshot from *Chapali Height*, 2020)

Figure 1 from the movie *Chapali Height* makes clear that the extreme physical and erotic exploitation by the males to the females may lead the unimaginable result which is made further clear in the discussion below.

Erotic Objectification on Bini's Body/Discussion

Chapali Height is an emotional thriller film produced by Arjun Kumar and directed by Dipendra Khanal in 2012. The movie was first released in March 16, 2012 which became the second blog buster movie of the year 2012 after *Loot*. Amir Gautam, Raj Ghimire and Binita Baral are the leading characters in the movie. The movie was set in different places of Pokhara and Chapali Height Kathmandu. The movie basically focuses the adult audiences because it has only focused on eroticism in terms of dialogues, narratives and scene. That's why; the movie got an adult certificate.

The entire movie is revolved only with three characters. Amir and Raj are the best friends from their childhood days. They share all sort of things (negative, positive) though other people try to hamper their relationship. So, when Bini knows about their treachery to play upon her body, Raj discloses the fact that he and his friend Amir were the best friend from their childhood. They didn't have any dispute and rows. They would share all sort of things either positive or negative or good or bad. The people would be jealous with their friendship. (Khanal, 2020). It is meant that they had the agreement even to share their sex partner to have the erotic bliss.



Figure 2: Amar and Raj disclosing the facts of their treachery and Bini's shocking expression (Source: - Snapshot from the movie *Chapali Height*, 2020)

In most of the places of the movie, there is the use of erotic scenes and dialogues as well. Basically, sexual objectification theory has been used to show the desire of the male characters to abuse the actress intentionally. The male characters Raj and Amir have treated Bini as an object and one by one they physically dominate her. At first, Amir does the drama of pure love and exploits her physically several time taking her in his friend Raj's inhabitant, Chapali Height but later on he breaks his relation with her in the issue of teaching love to Raj. While having party, suddenly, Amir departs from the room in aggression and goes to another room. Bini follows him to make sure that it is just acting. The conversation during that time goes like this:

Bini: - Amir, Raj is Alone, Come on.

Amir: - Why Do you need me? Go with Raj.

Bini: - Are suspecting me? You know, I left home for you?

Amir: - I also left. No bad has happened. You go to your home and I also will go.

Bini: - What? You are boy and that doesn't make any difference because the society has given discount to you. But I am girl. the society judges me negatively.

Amir: - So, what? By the way, don't worry, Raj is there for you. (Khanal, 2020, 00:50:15-00:51:34)(Own translation)

The above conversations make clear that Amir is regarding Bini as a commodity because to fulfil his desire, he abused her sexually but in the minor issue, he becomes aggressive and leaves her with Raj.



Figures 3: Bini, teaching the way of impressing a girl to Raj and Raj leaving Bini in that issue (Source: - Snapshots from *Chapali Height*, 2020)

Not only Amir, Raj also starts to abuse Bini sexually. When Amir leaves Raj's house, he (Raj) tries to impress her and expresses his desire to marry her. Bini, blindly trusts him and gives the positive signal of consent.

Raj: - Do you like me Bini?

Bini: - You are sweet heart.

Raj: - If so, will you marry me? (Khanal, 2020, 01:08:09-01:08:38)

(Own translation)

The intention of Raj also is not to love Bini spiritually rather to suck the sap her romantic youth because he along with his friend Amir had the previous consensus to share all kinds of things equally. To fulfil that desire, he entraps Bini in his love with the persuading dialogues such as, "wow! You are looking gorgeous" (Khanal, 2020, 01:03:50).



Figure 4: Raj persuading Bini to get married (Source: - Snapshot from *Chapali Height* 2020)

Raj's drama of artificial love to Bini is immediately disclosed with Amir's re-arrival

as per their agreement to share their sex partner. By trusting him, Bini openly gives Raj a consensus to have the physical affair but in Bini's surprise Raj is again appeared in the same bed which shocks Bini too much. Bini, in confusing state calls Raj as:

Bini: - Raj, Raj, Raj Amir!

Amir: - Surprise! Eh Raj, how is Bini? Did you enjoy with her? (Khanal, 2020, 01:14:40-01:15:03) (Own translation)

The detection of the treachery of Raj and Amir shatters Bini. However, she listens other reasons for playing on her body. Amir further clarifies the reason to use her as since they (he and Raj) have decided to follow the same path of the life, why to be departed for the society and a girl? (Khanal, 2020, 01:17:55-59). Moreover, they still express their desire to have the affair with her simultaneously. So, he further states that he and Raj still love her and want to lead rest of the life together by keeping her happy. (Khanal, 2020, 01:18:11-16). But Bini is not satisfied with their proposal and expresses her remarks that to fulfill their selfishness, they have played on her feeling, trust and body. (Khanal, 2020, 01:18:04-01:19:17). The aspiration of taking revenge comes into her mind and challenges them to take the action. She says that she is the girl of this generation and she will show them what she can do. (01:19:30). It is meant that when someone treats somebody crossing the boundary, there is the possibility of uncertain happenings. Even in this phase too, Raj and Amir don't fall back to persuade her. They try to convince by taking reference of satya yug as Amir inquires if Draupati can stay with Pandavas in Satya Yug, why not she? How much love Pandavs did Draupati, their love to her becomes more than that (Khanal, 2020). But Bini is not convinced with their persuading language and ultimately avenges them by killing them with digging tool because it was beyond the limit of tolerance.



Figure 5: Bini burying the dead bodies of Raj and Amir after killing them

(Source: Snapshot from *Chapali Height* 2020)

In most of the places in the movie, sexual objectification of male to the female is focused but, in some places, the self-objectification of female is also found. The actress, Bini, stimulates her partner to attract him towards her sexually. By wearing erotic attire, she uses stimulating languages and leaves her body to be used. She asks Amir about her figure and Amir replies that she is fully sensual. Then she demands further clarification regarding her sexy figure as “Really? How much Sexy?” Baby, tell me again who is looking sexy? (Khanal, 2020). It shows that she is provoking her male partners to exploit her erotically with her emotional figure. However, sexual objectification by male is much than self-objectification of woman in the movie *Chapali Height* unlike the study of Bleakley et al. (2012) who in their research regarding the trend of sexual and violent content in US films find that “female characters are twice likely as male characters to be involved in sex, with differences in more explicit sex growing over time.”. It is clear that in some movie, the females themselves aggravate the male partners to play on their body sexually.



Figures 6: Bini showing her stimulating body figure, and Raj taking the advantage of the figure (Source: - Snapshots from *Chapali Height* 2020)

Besides the erotic activities of the characters in the movie, there is the role of cinematography to show the objectification of the women. Although, cinematographic side of the movie is highly appreciated as Raunak (2012) in his post has stated, “Chapali Height’s strength is its cinematography. Thumbs up to cinematographer Niraj Kandel for impressive work in the movie”, it has boosted up the women’s physical exploitation by males. It is known that cinematographic aspect of the movie is just to enhance the business of the movie by presenting erotic scenes the audiences.

CONCLUSIONS

In the conclusion of this research, it is found that the female character in *Chapali Height* is highly exploited erotically. From the beginning to the end of the movie, the female character is being persuaded to be involved in physical relationship with her male partners who previously have the consensus to suck the sap of the romantic youth of a girl equally. Along with the sexual objectification by the male characters to the female character, sometime the woman character is presented in her self-objectification due to her blind faith upon her so-called male partners. However, the internalization of physical exploitation on her body crosses the limit of her aggression which leads the catastrophic end in the movie. So, it is found that the extreme physical exploitation to the female ultimately leads the disastrous result that at the end, the commodified woman revenges those roguish boys by killing them with digging tools and burying their dead bodies into the ditch.

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Errors in Scientific Physical Experiments

***Rajan Paudel Chhetri**

INTRODUCTION

Error in a scientific measurement usually does not mean mistake or blunder. Instead, the terms “errors” and “uncertainly” both refer to unavoidable impression in measurements. No measurement of any sort is complete without a consideration of this inherent error. we cannot avoid the “uncertainties” by being very careful. So how do we deal with the measurement errors? All we can do is to try to ensure they are as small as possible and have a reliable estimate of how large they are. many instrumental, physical and human limitations cause measurement to deviate from the True values of the quantities being measured. These deviations are called “experimental uncertainties”, but more commonly the shorter word error is used.

The true value of measured quantity is the value we would measure if somehow eliminated all errors from instrument and procedure. This is an ideal concept. We can improve the measurement process, of course, but since we can never hope to measure true values. when we specify the error in quantity. This estimate is far more than guess, for it is founded in a physical analysis of the measurement process and mathematical only of the equations which apply to the instruments and to the physical being studied. A measuring instrument measures some quality The smallest value that can be measured by measuring instrument correctly is called least count.

The least count puts limit on the accuracy of the measuring instrument. As a result, some error creeps into the observation. This error is known as permissible error of the instrument. It is equal to half of the least count. Besides this permissible errors, error may arise during calculation of the physical quantities using physical formula due to operations like addition, Subtraction, multiplication, division etc. and are called errors in calculation. That is the why it is important for students to learn how to determine quantitative estimate of the nature and size

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of experimental errors and to predict how these errors affect the reliability of the final result. So the process of the reevaluating error associated with result of any measurement of quantity is called error analyze.

Indeterminate Errors (Random errors)

The name “indeterminate” indicates that there is no way to determine the size or sign of the error in any individual measurement. Indeterminate errors cause a measuring process to give different values when that measurement is repeated many times. The causes of these errors may be operator’s error or biases, fluctuating experimental conditions, varying environmental conditions, and inherent variability of measuring instruments. The effect of these errors have on results can be somewhat reduced by taking repeated measurements then calculating their average. The average is generally considered to be a better representation of the “True Value” than any can single measurement because error of +’ve and -’ve sign tend to compensate each other in the averaging process.

Determinate (or Systematic) Errors

When the measurement of a quantity is repeated several times, the error has the same size and algebraic sign for every measurement then the errors are called determinate or systemic errors. Determinate means the size and sign of the errors are determinable. The common cause of determinate error is miscalibrated scale or instrument, a colorblind observer uses of incorrect value of constant in equations reading, a scale incorrectly etc. Determinate errors can be more serious than indeterminate errors for three reasons.

There is no sure method for discovering and identifying them just looking at the experimental data. Their effects cannot be reduced by averaging repeated measurement. There is no possibility for positive and negative errors to reduce them. After the uncertainty in measurement is decided and the measurement is made, two common methods follow, namely (i) typically that measurement is repeated and then the individual measured value or, (ii) the measured value is combined mathematically with other measured values, either via combining equation or vice curve fit and graphical analysis to find the final measured value is then typically compared to an accepted value or otherwise known value in order to evaluate the relevance of your experimental results. A discussion of why the final measured value differs from the accepted or known value is called error analysis. There are two common comparison methods, called percent error and percent difference defined as

$$\% \text{ Error} = \left[\frac{|\text{accepted value}| - |\text{experimental value}|}{|\text{accepted value}|} \right] \times 100\%$$

The % error is used when comparing the final measured value to well-accepted or well-known value.

$$\% \text{ difference} = [|(\text{value}) - (\text{value2})|],$$

$$\% \text{ Error} = \left[\frac{\text{Observed value} - \text{True Value}}{\text{True Value}} \right] \times 100\%$$

The percent difference is used when comparing a measured value. Once the percent error or percent difference is known, the error analysis may proceed. There are two main contributing factors accounting for the discrepancy between the final measured value and known value. They are accuracy and precision.

Accuracy and Precision

Accuracy is the degree of measurement between the experimental value and true value. Good accuracy means the reading or the mean of the set of readings is very close to the true value and is associated with small systematic uncertainties. But, precise measurement is the degree of agreement among a series of measurements of the same quantity. Good precision means the readings are mostly very close to their mean value and is associated with small random errors.

Reporting and Use Uncertainties

We have seen that the correct way to state the result of measurement is to give a best estimate of the quantity and the range within which we are confident the quantity lies. For example, the measurement of time recorded is usually reported as follows:

Best Estimate Time - 3.4 S

Probable range = - 3.35 to 3.5 S

Here, the best estimate lies at the midpoint of the estimated range of probable values 3.35 to 3.5. It allows the results of the measurement to be expressed in compact form. For eg, the above measurement of time is usually stated as follows

Measured Value of Time = (3.4 ± 0.1) S

This single equation is equivalent to two statements:

(i) The measured value either may be 0.1 S more than the best estimate or (ii) it may be 0.1 S less than the best estimate.

In general, the result of any measurement of a quantity x is stated as:

$$\text{Measured Value of } x = X_{\text{best}} \pm S_x$$

This statement means, first, that the experimenter's best estimate for the quantity concerned is the number X_{best} , and second, that he or she is reasonably confident the quantity lies somewhere between $X_{\text{best}} - S_x$ and $X_{\text{best}} + S_x$. For convenience the uncertainty S_x is always defined to be positive, so that $X_{\text{best}} + S_x$ is always highest probable value of the measured quantity and $X_{\text{best}} - S_x$ the lowest.

Significant Figures

Several basic rules for stating uncertainties are worth emphasizing. First, because the quantity S_x is an estimate of an uncertainty, obviously it should not be stated with too much precision. If we measure the acceleration due to gravity g , it would be absurd to state the result like:

$$(\text{Measured } g) = 9.82 \pm 0.02385 \text{ m/s}^2$$

The digits measured accurately by the instrument in a particular measurement is called its significant figure. The greater the no. of significant figures obtained, the more accurate is the measurement. For eg. a meter scale cannot measure a distance less than 1 cm. A meter scale thus can make a measurement of 45 cm or 47 cm but not 46.5 cm. Therefore, 45 cm or 47 cm are the significant in the measurement of length.

Rules to Find out Significant Figures

1. All non-zero digits are significant. For eg. 6825 kg has four significant figures.
2. The zero between two non-zero digits are significant. For eg. 301m has three significant figures.
3. All zeros to the right of decimal point are significant if they are not followed by non-zero digits. For eg 21.00 Hz has four significant figures.
4. All zeros to the right of decimal point and left to a non-zero digit are not significant For eg. 0.0320 has three significant figures.
5. All zeros to the right of the last non-digit are not significant. For eg . 4200 has two significant figures.

In high precision work, uncertainties are sometimes started with two significant figures but the experimental uncertainties should be 0.02 m/s²

Rounding off: The dropping out of last insignificant digit is called rounding off.

Rules to Rounding off a Number :

1. The previous digit in a number remains unchanged after rounding off if the last insignificant digit is less than five. For eg. 20.9m.
2. The previous digit in a number is increased by one after rounding off if the last insignificant digit is greater than five. Eg. 23.57cm 23.6cm.
3. If the last significant digit is exactly five, the previous digit is increased by one if it is odd and remains as such if it is even. For eg. 20.95 21m 20.85

Rule for Stating Answers

The last significant figure in any stated answer should usually be of the order of magnitude (in same decimal position) as the uncertainty.

Discrepancy

If two measurements of the same quantity disagree, we say there is a discrepancy. Numerically, we define the discrepancy between two measurements as their difference. Discrepancy = Difference between two measured values of the same quantity.

Fractional Uncertainty:

The uncertainty Δx in the measurement of quantity x by itself does not tell the whole story. So, the quantity of a measurement is indicated not just by the uncertainty Δx but also by the ratio of Δx to X_{best} which leads us to fractional uncertainty.

: Fractional uncertainty often called relative uncertainty = $\frac{\Delta x}{x_{\text{best}}}$

This may perhaps be the definition of Fractional uncertainty. What is its role in your current work ?

Common Sources of Error in Physics Laboratory Experiments

Careful description of sources of error allows future experiments to improve on our techniques. This long list of common sources of error, this list may help. This list goes from the common to the obscure.

Incomplete Definition (may be systematic or random)

One reason that it is impossible to make exact measurement is that the measurement is not always clearly defined. For example, if two different people measure the length of the same rope, they would probably get different results because each person may stretch the rope with a different tension. The best way to minimize definition errors is to carefully consider and specify the conditions that could affect the measurement.

Environmental Factors (Systematic or Random)

Be aware of errors introduced by our immediate working environment. We may need to take account for or protect our experiment from vibrations, drafts, changes in temperature, electronic noise or others effects from nearby apparatus.

Instrument Resolution (Random)

All instruments have finite precision that limits the ability to resolve small measurement differences, for instance, a meter scale cannot distinguish distances to a precision such better than about half of its smallest scale division (0.5 mm in this scale). One of the best ways to obtain more precise measurements is to use a null difference method instead of measuring a quantity directly. Null or balance methods involve using instrumentation to measure the difference between two similar quantities, one of which is known very accurately and is adjustable. The adjustable reference quantity is varied until the difference is reduced to magnitude of the unknown quantity can be found by comparison with the reference sample with this method, problems of source instability are eliminated, and the measuring instrument can be very sensitive and does not even need a scale.

Failure to Calibrate or check zero of instrument (Systematic): Whenever possible, the calibration of an instrument should be checked before taking data. If a calibration standard is not available, the accuracy of the instrument should be checked by comparing with another instrument that is at least as precise, or by consulting the technical data provided by the manufacturer. When making a measurement with a micrometer, electronic balance, or an electrical meter, always check the zero reading first. Re-zero the instrument if possible, or measure the displacement of the zero reading from the true zero and correct any measurements accordingly. It is a good idea to check the zero reading throughout the experiment.

Physical Variations (Random)

It is always wise to obtain multiple measurements over the entire range being investigated. Doing so often reveals variations that might otherwise go undetected. If desired, these variations may be cause for closer examination, or they may be cause for closer examination, or they may be combined to find an average value.

Parallax (Systematic or Random)

This error can occur whenever there is same distance between the measuring scale and the indicator used to obtain a measurement. If the observer's eye is not squarely aligned with the pointer and scale, the reading may be too high or low (some analog meters have mirrors to

help with this alignment)

Instrument Drift (Systematic): Most electronic instruments have reading that drift over time. The amount of drift is, generally, not a concern but occasionally this source of errors can be significant and should be considered.

Lag time and Hysteresis (Systematic): Some measuring devices require time to reach equilibrium, and taking a measurement before the instrument is stable will result in a measurement that is generally too low. The most common example is taking temperature reading with a thermometer that has not reached thermal with a thermometer that has not reached thermal equilibrium with its environment. A similar effect is hysteresis where the instrument readings lag behind and appear to have a “memory” effect as data are taken sequentially making up or down through a range of value. Hysteresis is most commonly associated with materials that become magnetized when a changing magnetic field is applied.

Absolute Error

Absolute error is a measure of how far “off” a measurement is from a true value or an indication of the uncertainty in measurement. For example, if we measure the width of a book using a ruler with millimeter marks, the best we can do is to measure the width of the book to the nearest millimeters. We measure the book and find it to be 75mm. We report the absolute error as 75mm ± Imm. The absolute error is Imm. Note that absolute error is reported in the same units as the measurement. Alternatively, we may have a known or calculated value and we want to use absolute error to express how close our measurement is to the ideal value. Here absolute error is expected as the difference between the expected and actual values.

Absolute Error-Actual value - Measured Value

Medicinal Plants and their Uses Against Gastrointestinal Disorders in Pokhara

***Om Prasad Dwa**

ABSTRACT

The paper describes the uses of local plants against GI problems in Pokhara Valley. The findings of the study are based on the experience and indigenous knowledge of people rather than clinical or scientific evaluation. This execution tries to highlight the significance of traditional medicinal plants for the treatment of major health issues i.e. GI problems in Pokhara valley of Nepal. Many studies on the medicinal uses of plants show that traditional medicine is an integral part of rural Nepal. According to the result, rural people of Pokhara valley use 101 plants belonging to 61 families. Listed families are Acanthaceae, Amaranthaceae, Anacardiaceae, Apocynaceae, Araceae, Acleridaceae, Aspidaceae, Asteraceae, Berberidaceae, Bignoniaceae, Bombacaceae, Cannabinaceae, Capridaceae, Caricaceae, Caryophyllaceae, Chenopodiaceae, Combretaceae, Commelinaceae, Crassulaceae, Cuscutaceae, Cyperaceae, Dioscoreaceae, Dipterocarpaceae, Elaeagnaceae, Euphorbiaceae, Fabaceae, Gentianaceae, Lamiaceae, Lauraceae, Liliaceae, Linaceae, Lythraceae, Magnoliaceae, Malvaceae, Meliaceae, Menispermaceae, Musaceae, Moraceae, Myricaceae, Myrtaceae, Nephrolepidaceae, Nyctaginaceae, Nymphaeaceae, Oxalidaceae, Pinaceae, Piperaceae, Poaceae, Polygonaceae, Punicaceae, Rhamnaceae, Rosaceae, Rutaceae, Sapindaceae, Solanaceae, Theaceae, Trapaceae, Ulmaceae, Umbelliferae, Urticaceae, Vitaceae, Zingiberaceae.

Keywords: *Gastrointestinal disorders, health issues, indigenous knowledge, Pokhara*

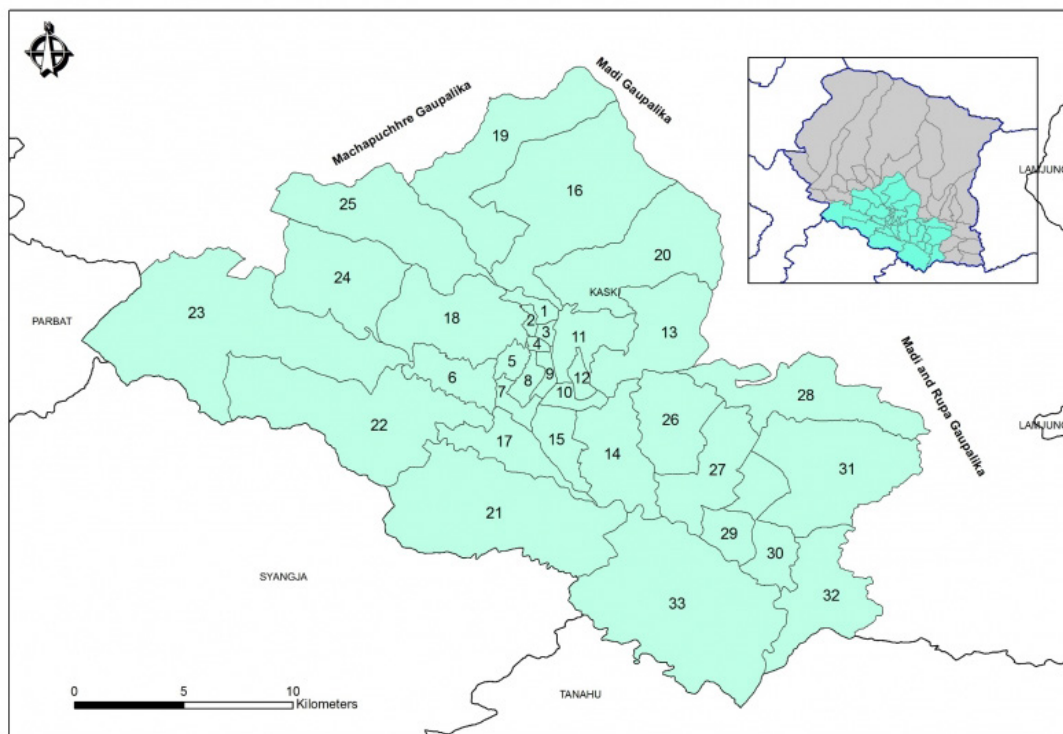
INTRODUCTION

The gastrointestinal tract in the human body is a muscular pipe way of the digestive system. It starts from the mouth and ends at the anus. It comprises the mouth, esophagus, stomach, and intestines. It is the passage through which food and water travel from the mouth after being swallowed. This passage involves digestion, absorption of food particles, and expelling residual food parts. Nowadays, people suffer from different kinds of gastrointestinal troubles like abdominal discomfort, vomiting, nausea, acid reflux, diarrhea, dysentery, indigestion, constipation, fecal incontinence, stomachache, loss of appetite, bloating, and difficulty in swallowing. Among these, diarrhea, dysentery, stomachache, indigestion, constipation, vomiting, and nausea are most common. GI disease is most common in the context of Pokhara Valley. Lack of sanitation, a balanced diet, hygienic water, and proper knowledge are key factors for sustaining such conditions. It is a bitter fact that people do not care about these problems as seriously. There is a lack of good health facilities in the rural area. All of this lead to the gradual deterioration of public health in such area. However, people of rural areas trust medicinal plants found around them and use them. Therefore, the aim of this execution is to document such indigenous knowledge and explore them for benefit of people.

MATERIAL AND METHODS

This paper deals with the medicinal uses of local plants against GI problems in Pokhara Valley. This work was executed from December 2020 to July 2021. The Pokhara Valley is located approximately in the center part of Nepal. It is 200 kilometers west of Kathmandu, the federal capital city of Nepal. It is the largest metropolis by area in Nepal and serves as the district and Province headquarters. The valley shows dense plants of diverse types, both aquatic and terrestrial. The areas undertaken for study are hilly and rural surrounding hills.

The format was set to collect necessary information regarding herbal uses of plants against GI troubles. For this, two groups were formed as per the age of respondents. The first group of 20 respondents ranges from 25 to 45 and the second group of 20, ranges from 45 to 65. These groups were based not only on their age but on their interest, knowledge, and utilization attitude of such plants. Necessary information was collected using the survey technique with verbal interviews. The questions were focused on parts of use and methods of use of medicinal plants for GI disorders. Before documentation, few open discussions were conducted with local people.



DISCUSSIONS

A total of 101 plants were recorded during this study which has been used to treat GI problems. Among these, tree comprises 37.62%, shrubs 21.78%, herbs 35.64%, and the rest 4.95%. Similarly, uses as plant parts show root 17.82%, stem 2.97%, bark 25.74%, leaves 18.81%, flowers 5.94%, fruits 25.74%, seeds 7.92%, whole plant 14.85%, tender shoot 1.98%, bud 2.97%, rhizome 3.96%, root tuber 2.97%, milky latex 1.98%, bulb 0.99%, and resin 0.99%. Similarly, medicinal plants used as per family are Fabaceae (10 species), Euphorbiaceae (6 species), Moraceae (6 species), Anacardiaceae (4species), and Rutaceae (4 species). These medicinal plants are more effective to treat diarrhea and dysentery which are the most common health problems in the context of Pokhara Valley.

1. *Acacia catechu* (L.F.) Wild.

Family: Fabaceae; Vernacular name: Khayar, English common name: Catechu tree.

Parts used: Stem and Bark

Uses: Stem and bark infusion is taken for constipation, diarrhea, and dysentery.

2. *Achyranthus aspera* Linn.
Family: Amaranthaceae; Vernacular name: Datiwan /Apamarga, English common name: Chaff flower.
Parts used: Root.
Uses: Root juice and paste are used to cure cholera, constipation, nausea, vomiting, stomachache, diarrhea, and dysentery.
3. *Acorus calamus* Linn.
Family: Araceae; Vernacular name: Bojho, English common name: Sweet flag
Parts used: Rhizome.
Uses: Rhizome juice is used to treat diarrhea, cholera, dysentery, dyspepsia, and stomachache.
4. *Aegle marmelous* (L.) Correa.
Family: Rutaceae; Vernacular name: Bel. English common name: Bel.
Parts used: Leaf and fruit.
Uses: Leaf extract is useful in diarrhea and amoebic dysentery, and the pulp of unripe fruit is used for constipation, intestinal disorders, ulcers, and indigestion.
5. *Allium wallichii* Kunch.
Family: Liliaceae; vernacular name: Jangali lahsun. English common name: Wild garlic.
Parts used: Bulbs
Uses: Bulbs are taken against cholera and diarrhea.
6. *Aloe vera* Linn.
Family: Liliaceae; vernacular name: Gheukumari. English common name: Indian aloe.
Parts used: Leaf
Uses: Juice obtained from the leaf is used against constipation, indigestion, dysentery, hemorrhoids, peptic ulcer, intestinal worms, and stomach problems.
7. *Artemisia vulgaris* Linn.
Family: Asteraceae; Vernacular name: Titepati. English common name: Indian worm weed.
Parts used: The whole plant
Uses: The plant is useful to treat abdominal pain, dyspepsia, diarrhea, and dysentery and is taken as stomachic and anthelmintic.
8. *Alstonia scholaris* (L.) R.Br.
Family: Apocynaceae; Vernacular name: Chattiwan, English common name: Devil's

tree.

Parts used: Bark

Uses: Bark juice is useful to treat constipation, dyspepsia, diarrhea, and dysentery.

9. *Amaranthus spinosus* Linn.

Family: Amaranthaceae; Vernacular name: Latte. English common name: Trailing amaranthus.

Parts used: Root

Uses: Root juice is effective in diarrhea and dysentery.

10. *Asparagus racemosus* Wild.

Family: Liliaceae; Vernacular name: Kurilo, English common name: Asparagus.

Parts used: Root and tuber

Uses: Root juice is taken for constipation, flatulence, dyspepsia, and stomach problems, and tuber is useful for diarrhea and dysentery.

11. *Azadirachta indica* A. Juss.

Family: Meliaceae; Vernacular name; Neem. English common name: Margosa tree.

Parts used: Leaf and Bark

Uses: Leaf and bark juice are useful against diarrhea and dysentery.

12. *Bauhinia variegata* Linn.

Family: Fabaceae; Vernacular name: Koiralo, English common name: Mountain ebony.

Parts used: Bark and flower

Uses: Bark and flower juice are used to cure diarrhea, and dysentery, and expels internal worms too.

13. *Berberis aristata* DC.

Family: Berberidaceae; Vernacular name: Chtro, English common name: Nepal's Barbery.

Parts used: Bark

Uses: Bark juice is useful to treat diarrhea.

14. *Bombax ceiba* Linn.

Family: Bombacaceae; Vernacular name: Simal, English common name: Silk cotton tree.

Parts used: Bark, flower, and seed

Uses: Bark juice is used against abdominal pain, intestinal spasms, colic, stomachache, and indigestion; flowers and seeds are useful to treat dysentery.

15. *Bryophyllum pinnatum (Lam) Oken.*
Family: Crassulaceae; Vernacular name: Ajambari/ Pattharchatta, English common name: Sprout leaf plant.
Parts used: leaf
Uses: The leaf is taken as anthelmintic and gastro-protective and is useful to treat stomach problems, dyspepsia, and gastric ulcers.
16. *Butea monosperma (Lamk) Taub.*
Family: Fabaceae; Vernacular name: Palas, English common name: Flame of the forest.
Parts used: Bark and gum
Uses: Bark is anthelmintic in property and is useful to cure ulcers. The gum is used in the treatment of diarrhea and dysentery.
17. *Calotropis gigantea (L.) Dryand.*
Family: Asclepiadaceae; Vernacular name: Ank, English common name: Giant milkweed.
Parts used: Bark and root
Uses: Bark juice is used against the bloody stool and root juice for diarrhea and dysentery.
18. *Cannabis sativa Linn.*
Family: Cannabinaceae; Vernacular name: Bhang, English common name: English hemp
Parts used: Leaf
Uses: Leaf juice is taken to cure diarrhea and dysentery.
19. *Capsicum frutescens Linn.*
Family: Solanaceae; Vernacular name: JyanmaraKhursani, English common name: Tabasco Pepper.
Parts used: Fruit
Uses: Fruit is stomachic and useful in indigestion, diarrhea, and ulcer.
20. *Carica papaya Linn.*
Family: Caricaceae; Vernacular name: Mewa, English common name: Papaya.
Parts used: Milky latex
Uses: Milky latex is taken for dysentery.
21. *Cassia fistula Linn.*
Family: Fabaceae; Vernacular name: Rajbrikshya, English common name: Cassia Pod.
Parts used: Fruit

- Uses: The fruit pulp is effective to treat stomach problems, indigestion, and constipation.
22. *Cassia tora* Linn.
Family: Fabaceae; Vernacular name: Tapre, English common name: Sickle senna.
Parts used: Leaf
Uses: The leaf powder is useful in stomach pain and indigestion.
23. *Celtis australis* Linn.
Family: Ulmaceae; Vernacular name: Khariko bot, English common name: European Nettle tree.
Parts used: Fruit
Uses: The fruit is used in colic.
24. *Centella asiatica* (L.) Urban.
Family: Umbelliferae; Vernacular name: Ghondtapre, English common name: Pennywort.
Parts used: The whole plant
Uses: The plant juice is used against indigestion and loss of appetite.
25. *Chenopodium album* Linn.
Family: Chenopodiaceae; Vernacular name: Bethe, English common name: Wild spinach.
Parts used: The whole plant and Seed
Uses: Powder of seeds is useful in abdominal pain and the plant is taken against digestive disorders, dyspepsia, indigestion, intestinal worms, peptic ulcers, piles, dysentery, and constipation.
26. *Choerospondias axillaris* (Roxb.) Burtt et Hill.
Family: Anacardiaceae; Vernacular name: Lapsi, English common name: Nepali Hog plum.
Parts used: Bark
Uses: The bark is used in dysentery.
27. *Cinnamomum tamala* (Buch.-Ham.) Nees et Eberm.
Family: Lauraceae; Vernacular name: Tejpat, English common name: Cinnamomum.
Parts used: Leaf and bark
Uses: The leaf juice is useful for curing gastritis, and bark juice is taken for colic pain, intestinal disorder, stomachache, nausea, and vomiting.
28. *Citrus limon* (Linn.) Burn. F.

Family: Rutaceae; Vernacular name: Kagati. English common name: Lemon.

Parts used: Leaf

Uses: The leaf is taken raw for dysentery, dyspepsia, and for removing intestinal worms.

29. *Citrus medica* Linn.

Family: Rutaceae; Vernacular name: Bimiro, English common name: Citron.

Parts used: Root

Uses: The root juice is useful in colic, diarrhea, dyspepsia, piles, indigestion, constipation, vomiting, and removing intestinal worms.

30. *Commelina benghalensis* Linn.

Family: Commelinaceae; Vernacular name: Kane sag, English common name: Tropical spiderwort.

Parts used: Root

Uses: Root juice is effective for indigestion.

31. *Crataeva religiosa* Forst.

Family: Capparidaceae; Vernacular name: Sipligan, English common name: Bengal quince.

Parts used: bark

Uses: The bark is used as a stomachic.

32. *Curcuma longa* Linn.

Family: Zingiberaceae; Vernacular name: Kalo haledo, English common name: Wild turmeric.

Parts used: Rhizome

Uses: The rhizome is useful as an anthelmintic and given for diarrhea.

33. *Cuscuta reflexa* Roxb.

Family: Cuscutaceae; Vernacular name: Akashbeli, English common name: Dodder/Cuscuta.

Parts used: The whole plant

Uses: The plant is used as an anthelmintic and is useful to treat diarrhea.

34. *Cynodon dactylon* (L.) Pers.

Family: Poaceae; Vernacular name: Dubo, English common name: Dub/Bermuda grass.

Parts used: The whole plant

Uses: The plant juice is useful to cure gastric disorder and indigestion.

35. *Cyperus rotundus* Linn.

- Family: Cyperaceae; Vernacular name: Mothe, English common name: Nutsedge.
 Parts used: Root tuber and Rhizome.
 Uses: Root tubers are used against stomachache and rhizome extract is for diarrhea and dysentery.
36. *Dalbergia sissoo* Roxb.exDc.
 Family: Fabaceae; Vernacular name: Sisau, English common name: Sisoo.
 Parts used: Bark and leaf.
 Uses: The leaf and bark juice is taken against diarrhea and dysentery.
37. *Dendrocalamus hamiltoni* Nees & Arnott ex Munro.
 Family: Poaceae; Vernacular name: Tamabans, English common name: Bamboo.
 Parts used: Tender shoot
 Uses: Tender shoot is useful to cure stomach inflammation.
38. *Dioscorea deltoidea* Wall ex Kunth.
 Family: Dioscoreaceae; Vernacular name: Gittha, English common name: Cush Yam.
 Parts used: Buds
 Uses: Boiled axillary buds are used to cure bloody dysentery and gastric problem.
39. *Drymeria cordata* wild.Sensu FBI.
 Family: Caryophyllaceae; Vernacular name: Abhijalo, English common name: Sandwort.
 Parts used: The whole plant
 Uses: The plant extract is useful in the treatment of diarrhea and dysentery.
40. *Dryopteris cochleata* (D.Don.) C. Chr.
 Family: Aspidiaceae; Vernacular name: Neuro, English common name: Wood ferns.
 Parts used: The whole plant
 Uses: The plant extract is useful to cure diarrhea and dysentery.
41. *Elaeagnus latifolia* Linn. Sensu FBI.
 Family: Elaeagnaceae; Vernacular name: Guyalo, English common name: Bastard oleaster.
 Parts used: Fruit.
 Uses: The fruit is helpful to overcome stomach problems.
42. *Erythrina variegata* Linn.
 Family: Fabaceae; Vernacular name: Phaledo, English common name: Indian coral tree.
 Parts used: Bark and leaf
 Uses: The bark is useful in dysentery and leaf juice is anthelmintic and stomachic.

43. *Euphorbia hirta* Linn.
Family: Euphorbiaceae; Vernacular name: Dudhilo, English common name: Australian asthma herb.
Parts used: The whole plant.
Uses: The root juice is useful to prevent vomiting and digestion. The plant juice is taken for diarrhea and dysentery.
44. *Euphorbia royalena* Boiss.
Family: Euphorbiaceae; Vernacular name: Shiudi, English common name: Royle's Spurge.
Parts used: Stem
Uses: Boiled stem pith is useful against diarrhea, gastric problems, indigestion, and stomach disorders.
45. *Ficus benghalensis* Linn.
Family: Moraceae; Vernacular name: Bar, English common name: Banayan tree.
Parts used: Bark and milky latex
Uses: Milky latex is useful for ulcers and infusion of the bark is used against diarrhea and dysentery.
46. *Ficus lacor* Buch-Ham.
Family: Moraceae; Vernacular name: Kauro, English common name: Java fig.
Parts used: Bark, bud, and seed.
Uses: The bark is used in gastric problems and ulcers, a decoction of bud in ulcers, and seeds in stomach disorders.
47. *Ficus racemosa* Linn.
Family: Moraceae; Vernacular name: Dumri, English common name: Cluster fig.
Parts used: Stem sap
Uses: Stem sap is used on the affected area to cure stomachache.
48. *Ficus religiosa* Linn.
Family: Moraceae; Vernacular name: Peepal, English common name: Peepal tree.
Parts used: Bark
Uses: The bark juice is useful to treat diarrhea and dysentery.
49. *Ficus semicordata* Buch-Ham ex J.E.Smith.
Family: Moraceae; Vernacular name: Khanau, English common name: Drooping fig.
Parts used: Bark and fruit.

- Uses: The bark effectively treats peptic ulcers and gastric problems, and the ripe fruits are useful for treating constipation.
50. *Foeniculum vulgare* Mill.
Family: Umbelliferae; Vernacular name: Saunp Jira, English common name: Fennel.
Parts used: Seed
Uses: Boiled seeds with sugar are useful to treat intestinal troubles, diarrhea, and dysentery.
51. *Hibiscus rosa-sinensis* Linn.
Family: Malvaceae; Vernacular name: Barmasephul, English common name: Shoe flower.
Parts used: Leaf and flower.
Uses: The leaf and the flower are used for piles, diarrhea, and dysentery.
52. *Imperata cylindrical* (L.) Beauv.
Family: Poaceae; Vernacular name: Siru, English common name: Thatch grass.
Parts used: Root
Uses: The root juice is given against diarrhea, dysentery, indigestion, and gastric troubles.
53. *Justicia adhatoda* Linn.
Family: Acanthaceae; Vernacular name: Asuro, English common name: Malabar nut.
Parts used: Root and leaf
Uses: The root extract is given for piles and leaf juice is for diarrhea and dysentery.
54. *Lindera neesiana* (Nees) Kurtz.
Family: Lauraceae; Vernacular name: Siltimur, English common name: Lindera seeds.
Parts used: Fruits
Uses: The fruits are useful to treat stomach trouble.
55. *Mangifera indica* Linn.
Family: Anacardiaceae; Vernacular name: Amp, English common name: Mango.
Parts used: Bark and Fruit.
Uses: The bark is taken against indigestion, diarrhea, and dysentery. The fruits are useful as an appetizer and useful for flatulence, peptic ulcer, intestinal spasm, biliousness, and constipation.
56. *Mallotus philippensis* (Lam.) Mull.Arg.
Family: Euphorbiaceae; Vernacular name: Royani, English common name: Kamal tree.

Parts used: Bark

Uses: The bark juice is useful in diarrhea, dysentery, and indigestion.

57. *Malvaviscus arboreus* Linn.

Family: Malvaceae; Vernacular name: Khursani Phool, English common name: Wax mallow.

Parts used: Flowers.

Uses: Boiled flowers with sugar are effective in chronic diarrhea and dysentery.

58. *Mentha arvensis* Linn.

Family: Lamiaceae; Vernacular name: Pudina, English common name: Mint.

Parts used: Leaf

Uses: The leaf juice is taken against nausea, vomiting, and bloody dysentery.

59. *Michelia champaca* Linn.

Family: Magnoliaceae; Vernacular name: Champ, English common name: Golden Champa.

Parts used: Flower and fruits

Uses: The flower and fruits are taken for the treatment of abdominal problems and dyspepsia.

60. *Mimosa pudica* Linn.

Family: Fabaceae; Vernacular name: Lajjawati jhar, English common name: Touch me not.

Parts used: The whole plant

Uses: The plant juice is used against diarrhea and dysentery.

61. *Mirabilis jalapa* Linn.

Family: Nyctaginaceae; Vernacular name: Malati, English common name: 4'0' clock plant.

Parts used: Root.

Uses: The root juice is used to relieve ulcers, gastritis, and stomachache.

62. *Musa paradisiaca* Linn.

Family: Musaceae; Vernacular name: Kera, English common name: Banana.

Parts used: Fruits.

Uses: Boiled unripe fruits are used in case of diarrhea and dysentery.

63. *Morus alba* Linn.

Family: Moraceae; Vernacular name: Kyun Kaphal, English common name: Mulberry.

- Parts used: Fruits.
 Uses: The fruit is useful in diarrhea, dysentery, and constipation.
64. *Myrica esculenta* Buch-Ham. ex D. Don.
 Family: Myricaceae; Vernacular name: Kaphal, English common name: Box Myrtle.
 Parts used: Bark.
 Uses: The bark juice is useful to cure cholera, diarrhea, and dysentery.
65. *Nelumbium nucifera* Gaertn.
 Family: Nymphaeaceae; Vernacular name: Kamal, English common name: Lotus.
 Parts used: Root, seeds, and leaf.
 Uses: The root is useful in dyspepsia, piles, biliousness, diarrhea, and dysentery. Tender leaves are used to cure cholera, diarrhea, mild dysentery, and piles. Similarly, seeds are beneficial for diarrhea, dysentery, and vomiting.
66. *Nephrolepis cordifolia* (L.) K. Presl.
 Family: Nephrolepidaceae; Vernacular name: Pani amala, English common name: Sword fern.
 Parts used: Root tuber.
 Uses: Root tubers are useful against diarrhea and dysentery.
67. *Ocimum basilicum* Linn.
 Family: Lamiaceae; Vernacular name: Babari, English common name: Sweet basil.
 Parts used: Leaves and seeds.
 Uses: The leaves are used as anthelmintic and stomachic. The seeds are given in diarrhea, constipation, chronic dysentery, and piles.
68. *Ocimum tenuiflorum* Linn.
 Family: Lamiaceae; Vernacular name: Tulsi, English common name: Holy basil.
 Parts used: The whole plant and leaves,
 Uses: The plant and leaves juice is taken for diarrhea, nausea, and dysentery.
69. *Oroxylum indicum* (L.) Vent.
 Family: Bignoniaceae; Vernacular name: Tatelo, English common name: Indian trumpet flower.
 Parts used: Root bark and tender fruits.
 Uses: The root-bark is useful in the treatment of biliousness, diarrhea, dysentery, and as anthelmintic. Tender fruits are used as digestive and appetizers and are useful to cure constipation, stomachache, diarrhea, and dysentery.

70. *Oxalis corniculata* Linn.
Family: Oxalidaceae; Vernacular name: Chari amilo, English common name: Wood sorrel.
Parts used: The whole plant.
Uses: The plant juice is effective in biliousness, constipation, dyspepsia, peptic ulcer, piles, vomiting, stomachache, hemorrhoids, diarrhea, and dysentery.
71. *Phaseolus radiates* Linn.
Family: Fabaceae; Vernacular name: Mas, English common name: Indian senna.
Parts used: Seeds.
Uses: The seeds are anti-colic, stomachic, and used in constipation and piles.
72. *Phyllanthus emblica* Linn.
Family: Euphorbiaceae; Vernacular name: Amala, English common name: Emblic myrobalan.
Parts used: Bark, leaves, and fruits.
Uses: The bark juice is effective for constipation and amebic dysentery. Leaf juice is effective in constipation. The fruits show wide effects and are useful to treat diarrhea, dysentery, dyspepsia, gastric troubles, vomiting, and intestinal spasm.
73. *Phyllanthus urinaria* Linn.
Family: Euphorbiaceae; Vernacular name: Bhuinamala, English common name: Tamalika.
Parts Used: Leaves.
Uses: The leaf juice is effective to cure diarrhea and dysentery.
74. *Pinus roxburghii* Sargent.
Family: Pinaceae; Vernacular name: Sallo, English common name: Pine
Parts used: Resin.
Uses: Small amount of resin is useful to treat gastric troubles.
75. *Polygonum molle* D.Don.
Family: Polygonaceae; Vernacular name: Thotne, English common name: Knotgrass.
Parts used: Young shoot.
Uses: The young shoot is taken to treat diarrhea and dysentery.
76. *Piper longum* Linn.
Family: Piperaceae; Vernacular name: Pipla, English common name: Long pepper.
Parts used: Fruits.

- Uses: The fruits are useful to cure indigestion, dyspepsia, piles, vomiting, and stomachache.
77. *Psidium guajava* Linn.
 Family: Myrtaceae; Vernacular name: Amba, English common name: Guava.
 Parts used: Root, bud, and fruit.
 Uses: The root bark is taken to cure diarrhea. Juice of the young bud is effective to treat diarrhea, dysentery, and abdominal pain. Similarly, fruits are useful in constipation, abdominal pain, diarrhea, and dysentery.
78. *Punica granatum* Linn.
 Family: Punicaceae; Vernacular name: Anar, English common name: Pomegranate.
 Parts used: Rind of the fruit.
 Uses: Juice of the rind is taken for diarrhea and dysentery.
79. *Rhus javanica* Linn.
 Family: Anacardiaceae; Vernacular name: Bhakimlo, English common name: Sumac.
 Parts used: Fruits.
 Uses: Decoction of the fruits is effective to treat stomach problems, diarrhea, and dysentery.
80. *Rhus parviflora* Roxb.
 Family: Anacardiaceae; Vernacular name: Satibayar, English common name: Sumac.
 Parts used: Fruits.
 Uses: Decoction of the fruits is useful to cure dysentery.
81. *Reinwardtia indica* Dum.
 Family: Linaceae; Vernacular name: Pyauli, English common name: Yellow flax.
 Parts used: Root.
 Uses: The root juice is effective to cure indigestion.
82. *Ricinus communis* Linn.
 Family: Euphorbiaceae; Vernacular name: Adir, English common name: Castor.
 Parts used: Root.
 Uses: The root juice is useful in diarrhea and dysentery.
83. *Rubus ellipticus* J.E.Smith.
 Family: Rosaceae; Vernacular name: Ainselu, English common name: Raspberry.
 Parts used: Root.
 Uses: The root juice is effective in diarrhea and dysentery.

84. *Sapindus mukorossi* Gaertn.
Family: Sapindaceae; Vernacular name: Rittha, English common name: Soapnut tree.
Parts used: Fruits.
Uses: The fruits are useful as anthelmintic and used to cure diarrhea and indigestion.
85. *Schima wallichii* (DC) Korth.
Family: Theaceae; Vernacular name: Chilaune, English common name: Needle wood.
Parts used: Bark.
Uses: The bark is useful as anthelmintic and used in stomach pain.
86. *Shorea robusta* Gaertn.F.
Family: Dipterocarpaceae; Vernacular name: Sal, English common name: Sal tree.
Parts used: Root, bark, and seeds.
Uses: The root and bark juice are useful to treat diarrhea and dysentery. Seed paste is also taken to cure diarrhea and dysentery.
87. *Solanum nigrum* Linn.
Family: Solanaceae; Vernacular name: Kaligedi/ Jangali bihi, English common name: Black nightshade.
Parts used: The whole plant.
Uses: The plant juice is taken for digestive disorders and dysentery. Ripe fruits are useful to cure constipation.
88. *Swertia chirata* (Roxb ex Fleming) H.Karst.
Family: Gentianaceae; Vernacular name: Chiraito, English common name: Chiraita.
Parts used: The whole plant.
Uses: The plant juice is used for abdominal pain.
89. *Syzygium cumini* (L.) Skeels.
Family: Myrtaceae; Vernacular name: Jamun, English common name: Blackberry.
Parts used: Bark, fruits, and seeds.
Uses: The bark juice is useful in diarrhea and dysentery. The fruits are taken for constipation and indigestion. The seed powder is used to cure diarrhea and dysentery.
90. *Tamarindus indica* Linn.
Family: Fabaceae; Vernacular name: Emili, English common name: Tamarind.
Parts used: Fruits.
Uses: The fruit is useful for digestion and used in indigestion, bile problems, and constipation.

91. *Terminalia bellirica* (Gaertn.) Roxb.
Family: Combretaceae; Vernacular name: Barro, English common name: Belleric myrobalan.
Parts used: Fruits.
Uses: The fruits are anthelmintic and also useful in biliousness, constipation, diarrhea, dysentery, dyspepsia, vomiting, and indigestion.
92. *Terminalia chebula* Retz.
Family: Combretaceae; Vernacular name: Harro, English common name: Chebulic myrobalan.
Parts used: fruits.
Uses: The fruits are used to treat constipation, indigestion, vomiting, chronic diarrhea, dysentery, flatulence, piles, intestinal worms, ulcers, and vomiting.
93. *Tinospora sinensis* (Lour.) Merr.
Family: Menispermaceae; Vernacular name: Gurjo, English common name: Gulancha Tinospora.
Parts used: The whole plant.
Uses: the plant juice is useful in indigestion, biliousness, dyspepsia, piles, chronic diarrhea, and dysentery.
94. *Toona ciliata* M. Roemer.
Family: Meliaceae; Vernacular name: Tooni, English common name: Red cedar.
Parts used: Bark.
Uses: The bark juice is useful to cure diarrhea and dysentery.
95. *Trapa bispinosa* Roxb.
Family: Trapaceae; Vernacular name: Simalkande, English common name: Water chestnut.
Parts used: Fruits.
Uses: Spiny fruits contain a white fleshy mass which is useful to cure biliousness and diarrhea.
96. *Urtica dioica* Linn.
Family: Urticaceae; Vernacular name: Shisnu, English common name: Nettle.
Parts used: Root.
Uses: The root juice is effective for removing intestinal worms and stomach disorders.
97. *Vitis vinifera* Linn.

Family: Vitaceae; Vernacular name: Dakh, English common name: Wild grape.

Parts used: fruits.

Uses: The fruits are useful to cure diarrhea, dyspepsia, and indigestion.

98. *Woodfordia fruticosa* (L.) Kurz.

Family: Lythraceae; Vernacular name: NA, English common name: Fire-flame bush.

Parts used: Bark and flowers.

Uses: The bark juice is used against gastric troubles and bloody stool. Boiled flowers are useful to treat indigestion.

99. *Zanthoxylum armatum* Dc.

Family: Rutaceae; Vernacular name: Timmur, English common name: Prickly ash.

Parts used: Fruits.

Uses: The fruits are anthelmintic and useful in indigestion, abdominal pain, cholera, diarrhea, dysentery, flatulence, dyspepsia, and gastritis.

100. *Zingiber officinale* Rosc.

Family: Zingiberaceae; Vernacular name: Aduwa, English common name: Ginger.

Parts used: Rhizome.

Uses: Rhizome is very useful in the treatment of indigestion and constipation.

101. *Ziziphus mauritiana* Lam.

Family: Rhamnaceae; Vernacular name: Bayar, English common name: Indian plum.

Parts used: Root, bark, leaf, and fruits.

Uses: The root paste is used in vomiting and dysentery. The bark juice is useful in diarrhea and

Dysentery. The leaves are used to cure diarrhea. The ripe fruits are used in stomach problems,

Indigestion, and constipation.

CONCLUSION

Medicinal plants and their uses against gastrointestinal disorders are original works from the Pokhara Valley. These plants are used to treat more than 18 different types of GI problems. The study also shows a few new plants from this area for effective curing of GI problems. There are 20 plants that have been used against GI troubles and were not observed and reported earlier. Such plants are *Bryophyllum pinnatum*, *Butea monosperma*, *Capsicum frutescence*,

Cassia fistula, Celtis australis, Crataeva religiosa, Dalbergia sisso, Erythrina variegata, Ficus lacor, Foeniculum vulgare, Lindera neesiana, Malvaviscua arboreus, Michelia champaca, Nelumbium nucifera, Phaseolus radiatus, Rhus javanica, Schima wallichii, Tamarindus indica, Trapa bispinosa, and Vitis vinifera.

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Adventure Tourism Activities in Pokhara: A Case of Zipflyer

***Biranji Gautam**

BACKGROUND

Nepal is a small landlocked Himalayan country, having an area of 147,181 sq. km, lies in South Asia and officially known as the Democratic Republic of Nepal (Kharel, 2013). With rich ancient cultures set against the most dramatic scenery in the world, Nepal is a land of discovery and unique experience providing individuals with an experience that is authentic and mesmerizing. It has spellbinding natural beauty, unique cultural heritage, multi-language, multi-ethnicity, multi religion, conducive climate and tourism friendly environment, which attracts both domestic and international tourists. With eight of the 10 highest mountains in the world including Sagarmatha, national parks rich in flora and fauna, snow-fed rivers, exceptional trekking routes, wonderful lakes and welcoming people, Nepal is an ideal tourist destination. It is unsurpassed that the sheer diversity Nepal boasts, from steamy jungle and Terai to the icy peaks of the world's highest mountains means that the range of activities on offer. For many, Nepal's greatest attraction is its people. From remote mountain villages to medieval hill-towns and the ancient cities of the Kathmandu valley, the people of Nepal are always welcoming.

Pokhara is the second most visited city in Nepal, as well as one of the most popular tourist destinations ("About Pokhara", n.d.). It is a geographical landscape of beauty and its prime attractions include three of the tallest mountains in the world, the large number of lakes, religious sites, cultural heritages, trekking and hiking routes, caves and other manmade tributes (Pokhara, n.d.). Pokhara has unique assets for tourism development and a great diversity of products. Key attractions include its nature, trekking and adventure activities, religious and cultural sites. It has an established niche in international tourism, with tourist arrivals showing

strong and stable growth (International Finance Corporation [IFC], Final Report, 2016). Different tourism activities like trekking, mountaineering, hiking, pony trek, paragliding, zip-flyer, ultra-light flights, mountain flights, canoeing, kayaking, rafting, mountain biking, honey hunting, research, birds and butterflies watching, village tourism, boating, fishing etc. are main attractions of Pokhara.

Zip-flyer is one of them and it's cool weather are strong attractions. Nepal holds great potential for tourism development, which can stimulate economic growth and development. In recent years, there has been exponential growth in the number of travel agencies, tour guide, tour operator, rafting agencies and trekking agencies.

Zip-flyer is one of the adventurous sports. Zip-flyer is an activity that involves zip-flyer from a tall structure while connected to a large elastic cord. Zip flyer normally means riding in a zip line which is normally at peak height, creating both adventure and excitement. Zip flyer in Nepal has been operating since 2012, and it has been one of the ultimate adventure of Asia. Zip flyer in Nepal is the longest, steepest, and fastest zip line in the world. Being the longest zip line in the world, zip flyer in Nepal is one of the center of attraction for the tourists of the world.

Zip-Flyer itself is a part of adventure tourism activity. It is the most popular activity among the most preferred Adventure sports. Zipflyer Nepal is the Ultimate Zip-line experience in the foothills of the Himalayas. It has an initial incline of 56 degrees (which makes it the steepest Zipline in the world), total length of 1850 meters and a vertical drop of more than 600 meters.

It is the tallest, longest and the steepest zip-line in the world. The Zipflyer is located in one of the most scenic places on the planet. What's more, this Zipline also gives you a front row seat to views of the breathtaking Annapurna mountain range, Mount Machhapuchhre (Fish tail), and Seti River as you soar at over 100Km/h.

Features of Adventure Tourism Development

Zip-Flying is one of the unique and preferred adventure sports in Pokhara; it is the recreational and competitive adventure sport. The main area for flying in Annapurna region. It is the monsoonal climate that makes Nepal such a great place to fly. Pokhara, the beauty of natural resources and biodiversity in its lap as well as the smiling face of the mountains, has the potential for Zip-Fly. Pokhara offers a spectacular view of the Annapurna and Dhaulagiri masses along with other snowy peaks which appear even more majestic with the sunrise and sunset colors that transform the view of the mountains. Flyer though the clear, beautiful,

picturesque vistas with the Annapurna range ahead and the dense green forest canopy below is the unique feature for Zip-Flyers. It will without doubt be the most awesome experience that, before this, did not even know you could have.

Successful tourism development in an area demands formulation and implementation of several initiatives and plans. For the development of Zip-line even in more sustainable way it has to formulate a master plan. Zip line has bright future if the plans are implemented in a proper way. Zip-Flying business should focus on expanding its service and its length to attract more amounts of visitors. As it has a high potential in upcoming days for thrills seekers the government should make right plans and promotes the service in effective way so that it will catch the interest of the visitors and attract them.

Safety Measure on Zipflyer

Several standard measures that are practiced at global level have been adopted for the safety of the customers. Some of the safety measures are;

Equipment are all ASTM standards, Harness – Double backup systems (Nylon load rated test certified), About cable – 19.04mm/ ¾ full later locked cable, Trolleys – ASTM certified steels, Bolts - 10.9 grade bolts for tower and HV copper plated bolts for trolleys GRS (gear retrieval system), Nylon Fiber rope used to haul back harness to the top station via 6 mm approximately costs for 6 months, and mole safe load holding 1200 lbs. on each, Braking unit- Zip stops / maintenance and servicing is done by HPS middle fast LLC, Dubai who is agent, for zip stops, For trolley plates, they do every month maintenance, in the maintenance, they check every machinery item (tools)and if there is some damaged then they, replaced at the same time, coming to part of safety first they have safety harness chair. In the harness chair, they have two locks a) Star lock and b) chest lock,

CONCLUSSION

It is important to know how adventure tourists are different from the tourist in general to ensure that resources are used correctly to benefit product development, service quality and promotional activities for tourism to be adventure tourism, tourist must take part in activities where risk is involved and a challenge is perceived in natural environment. Zip flying has been the one of the top adventurous tourism activities as the real thrill adventure lies in the feelings and the beautiful images (mountains, lakes, valley etc.) from the sky. It is an experience bound description for any words to perfectly portray.

