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## Editorial

*Kalika Journal of Multiple- disciplinary studies is an annual peer – reviewed research journal related to different dimensions of social sciences, natural sciences, education. It attempts to furnish the research articles in multidisciplinary aspects. In additin to its multidisciplinary nature, it also focuses on interdisciplinary aspects of various research.*

*The present volume I attempts to include original research articles, review articles from various fields. The editorial board is grateful to all contributors for sending articles to this journal. In addition, we are also indebted to all reviewers who have a significant contribution in this regard.*

*The present volume has included nine original manuscripts five from social sciences, one from statistics, one from natural science and two from educational research. These manuscripts really reflect the essence of real research.*

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# Physiographic condition of *Bergenia ciliata*: A case study from Sanlapsi Sitalban Community Forest, Kaski Nepal

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Mahendra Singh Thapa\*\*

## Abstract

*This study assesses status of Bergenia ciliata (Pakhanved) in relation to physiographic conditions of their growth and their use in local health treatment and income generation of forest users in Sanlapsi Sitalban Community Forest of Kaski district under Gandaki province. It contains dominantly medium grade metamorphic rocks as phyllite and quartzite. The weathering in cracked rocks is most suitable places to grow B. ciliata. The number of B. ciliata found to be higher in greater slope. From that it shows direct relation to the rocks and its English name is rock foil. The species richness of this shows higher in lower altitude. The species suitably grows in northern aspect. B. ciliata reveals highest frequency (100%) followed by Crysopogon spp. and Eragrostis spp. (90%) and remaining species have comparatively lower frequency with the associated species of herbs and grasses. The relative frequency and relative density of B. ciliata is higher than other associated species.*

**Keywords:** Slope, aspect, altitude, ecological status, metamorphic rocks, Pakhanved

## Introduction

Nepal is rich in biological resources having valuable non-timber forest products (NTFPs) including medicinal and aromatic plants (MAPs), comprising about 10% of the vascular plant species (Malla and Shakya, 1995). Medicinal and aromatic plants (MAPs) are a major component of NTFPs in Nepal and their contribution in Nepal's GDP is 5 percent with huge economic potential especially in the mountains (Olsen and Helles, 1997). They, however, constitute only 10 percent of the total annual revenue from the forestry sector (Kanel, 2001). There are more than 1600 MAP species reported in Nepal (Shrestha et al., 2000). Out of nearly 6000 flowering and 4000 non-flowering plant species (Hara *et al*

1982; Press et al., 2000), 246 plant species are listed as endemic to Nepal (Shrestha *et al.* 1996). The diversity of species in Nepalese flora offers great opportunities for the search of medicinal substances, not yet described or discovered. Nepal has a record of over 700 species of medicinal plants (Premakumari 2006).

Kaski District lies in western part of Nepal under the Gandaki province having altitudinal ranges from around 800 -7000 m. It is the home of large number of low to high altitudinal

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MAPs including *Swertia chirayita*, *Aconitum* spp., *Delphinium* spp., *Bergenia ciliata*, *Tinospora cordifolia*, *Rubia* spp. and so on.

These MAPs have great potential both for the local health treatment and income generation. *Bergenia ciliata* is the medicinal plant of the family Saxi fragaceae. It is distributed in South and East Asia especially in Hindu-Kush Himalayan range and European countries. These plants grow at high altitudes in rocky areas and on cliffs (Singh et al. 2007). The English name of this species is rock foil and Nepali name is Pakhanved. It is high valued medicinal plant for the treatment of various diseases like kidney and bladder stones, leucorrhea and piles (Asollar et al. 1992); fever, cough and pulmonary affections (Rai and Sharma 1994, Biawas 1955, Chowdhary et al. 2009); urinary calculi and other urinary diseases, anti-diabetic, heart diseases, hemorrhoids, stomach disorders and ophthalmic (Kapur 1993, Singh and Aswal 1992); analgesic, antipyretic, anti-inflammatory, diuretic, antilithic activities of rhizomes (Chopra et al. 1958), diarrhea and vomiting (Sinha et al. 2001). All of these diseases have been cured using rhizomes of *B. ciliata* through the traditional practices and making drugs in pharmaceutical way.

The studied Community Forest (CF) lies in Lesser Himalayan meta-sedimentary zone. The soils in the cracks are the suitable places to grow *B. ciliata*. It grows well in the temperate Himalayas between altitudes of 900 and 3,000 m. Physical and chemical properties of soil, availability of nutrients, altitude, aspect and slope plays great role in the growth and distribution of *B. ciliata*. Previous literature reveals that information on quantitative assessment of *B. ciliata* are not available and biomass is the primary requisite for the further studies of phyto-chemical studies of the plant. All active ingredients are present in the biomass. So it is important to know the best habitat for obtaining the maximum biomass (Chowdhary et al. 2010). Therefore, the study focuses on quantification of *B. ciliata* richness in SSCF for further planning by related professionals and organizations for the use in sustainable way for rural communities.

## **Study Area**

SSCF lies in Kaskikot village of Kaski district, Nepal. The purposive sampling method was applied to collect biophysical data. Ten sample plots were established in selected CF by random sampling technique with due consideration of elevation, aspect, rock types and slope for the study. Community Forest Resource Inventory Guideline (HMG Nepal, 2004) was followed for the study of MAPs by making 10 m x 10 m plots for shrub species and 2m x 5m within 10m x 10m for herb species. The frequency of species, stem size and height of plants were measured in each plot. Plot characteristics like aspect, altitude, slope and rock types were also recorded

## Materials And Methods

All the potential forests for *B. ciliata* are greater than 0.5ha in Kaski district, Nepal were identified through Divisional Forest Office (DFO). These were mapped using reconnaissance survey and selected the SSCF by participatory resource mapping.



Fig. 1: *B. ciliata* in Sanlapsi Sitalban CF

Field plot measurement and observations were carried out for the study of rock types by research team. The collected data are analyzed by using descriptive statistics in the form of table, line graph and bar diagrams.

## Results and Discussion

The collected data from the field are included in interpretation of *B. ciliata* and other associated shrubs and herbs/grasses species by using descriptive statistics. The associated species may be milestone to identify *B. ciliata* in other areas of the country in Midland physiographic region.

The analysis of shrub species with respect to number, average height and average diameter of 16 shrub species were recorded from 10 plots (Table 1). The highest number of shrub species is found to be *Phyllanthus paruifolius* (112), whereas least number was that of *Pogastemon benghalensis* and *Maesa chisia* (1). Similarly, the average height of *Parthnocissus semicordata* was greater than other species. In the same way, the highest average diameter was measured on *Xeromphis spinosa*.

Table 1: Shrub species distribution in SSCF (10 cm above the ground)

Scientific Name/Local Name	No. of Plants/ km <sup>2</sup>	Avg. height (cm)	Avg. diameter (cm)
<i>Acacia pennata</i> (Angeri)	62	70.00	0.90
<i>Rosa brunonii</i> (Baiselu)	11	200.00	0.70
<i>Rubus ellipticus</i> (Aiselu)	10	100.00	0.58
<i>Rubus spp.</i> (Bhaise kando)	5	36.67	0.17
<i>Berberis aristata</i> (Chutro)	13	22.50	0.25
<i>Maclura cochinchinensis</i> (Dambar kanda)	3	105.00	1.65
<i>Xeromphis spinosa</i> (Main kanda)	3	255.00	2.00
<i>Inula cappa</i> (Gaitihare phul)	26	24.67	0.40
<i>Viburnum cylindricum</i> (Ghori kath)	38	66.86	1.13
<i>Maesa chisia</i> (Bilauni)	1	35.00	0.30
<i>Smilex aspera</i> (Kukur daino)	4	28.00	0.20
<i>Viburnum mullaha</i> (Mollo)	16	228.33	1.62
<i>Pogastemon benghalensis</i> (Rudhilo)	1	60.00	0.60
<i>Phyllanthus paruifolius</i> (Sanopaite)	112	92.22	0.72
<i>Lyonia ovalifolia</i> (Thaune)	16	136.67	1.83
<i>Phyllanthus paruifolius</i> (Thulopaite)	13	63.75	0.45
<b>Grand Total</b>	<b>334.00</b>	<b>-</b>	<b>-</b>
<b>Average</b>	<b>20.88</b>	<b>95.29</b>	<b>0.84</b>

The analysis of potential herb (*B. ciliata*) and other associated herb species at SSCF with respect to number and average height of 20 herb species in 10 plots is given in Table 2. The highest number of herb species is found to be the potential *B. ciliata*. (730)/1000m<sup>2</sup> without slope correction. Similarly, the average height of *Lycopodium clavatum* was greater than other species.

Table 2: Altitude wise *B. ciliata* and associated species in SSCF

Scientific Name/Local Name	No. of Plants/ km <sup>2</sup>	Avg. Height (cm)	Altitude (m)				
			1500-1550	1550-1600	1600-1650	1650-1700	<b>1700-1750</b>
<i>Eupatorium adenophorum</i> (Banmara)	58	43.00	1	0	20	27	10



<i>Eragrostis spp.</i> (Banso ghans)	477	37.11	17	350	18	80	12
<i>Crassocephalum crepidiodes</i> (Ankhle ghans)	69	27.50	0	21	48	0	0
<i>Swertia chirayita</i> (Chiraito)	1	5.00	0	1	0	0	0
<i>Pityrogramma calomelanos</i> (Dankernu)	25	10.00	25	0	0	0	0
<i>Pteris biaurita</i> (Hadeuneu)	11	33.33	6	0	4	1	0
<i>Botrychium lanuginosum</i> (Jaluko)	91	20.60	40	15	36	0	0
<i>Onychium uoponium</i> (Chille fern)	73	18.25	65	0	0	8	0
<i>Pagonatherum crinitum</i> (Kharu)	142	30.00	22	0	0	120	0
<i>Smilax aspera</i> (Kukurdiano)	3	39.00	0	0	3	0	0
<i>Lycopodium clavatum</i> (Nagbeli)	81	140.00	6	30	0	0	45
<i>Rubia cordiflora</i> (Majitho)	15	48.33	0	3	7	1	4
<i>Cyperus spp.</i> (Mothe ghans)	3	15.00	3	0	0	0	0
<i>Drepanostachyum falcatum</i> (Nigalo)	280	52.80	220	8	2	50	0
<i>Desmotrichum Sp.</i> (Sunakhari)	9	17.00	0	2	7	0	0
<b><i>Bergenia ciliata</i> (Pakhanved)</b>	<b>730</b>	23.50	400	142	113	39	<b>36</b>
<i>Nephrolepis cordifolia</i> ) Pani amala)	235	16.00	0	125	70	40	0
<i>Ptris aspericaulis</i> (Pirre sottar)	108	30.00	0	100	8	0	0

Curculigo crassifolia (Poteroghans)	10	21.00	0	7	3	0	0
<i>Crysopogon spp.</i> (Salime Khar)	653	45.43	30	100	161	212	150
Grand Total	3074	672.85	835	904	500	578	257
Average value	153.70	33.64	43.95	47.58	26.32	30.42	13.53

The distribution of *B. ciliata* and associated species with respect to the elevation found to be random except to *B. ciliata*. It shows the species number is decreasing with increasing elevation. Excluding other factors, the randomness in the distribution of associated species with respect to the elevation range might be due to the slope and aspect.

The average number of *B. ciliata* and associated species in winter and summer season with respect to the elevation range is presented in Fig. 3. The number of species in winter season is comparatively lower than in summer season. The number of species is highest in lower elevation in the class 1500-1550 m. It clearly indicates that the elevation range of 1500 to 1550m is suitable for this species.

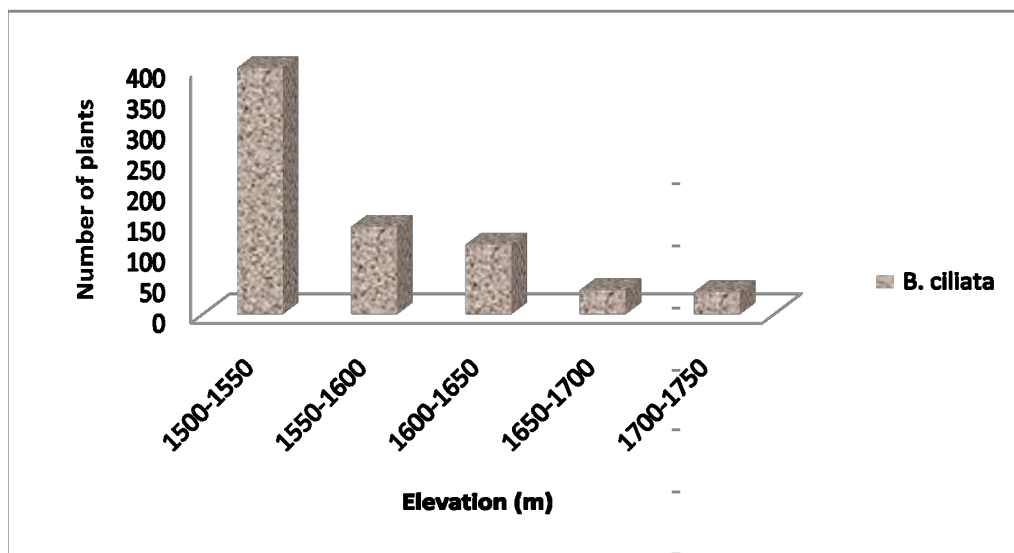


Fig. 3: Distribution of *B. ciliata* with respect to elevation in SSCF

The distribution of *B. ciliata* and other associated herb species were also analyzed with respect to the aspects of SSCF such as North and North-West and West, which is presented in Table 3. The occurrence of associated species including *B. ciliata* at Northern aspect was found to be higher, followed by North- West and Western aspects. So it needs more moisture for their growth and distribution. The *B. ciliata* was not found in southern slope in SSCF.

Table 3: Aspect and slope wise distribution of *B. ciliata* and associated species in SSCF

Scientific Name/Local Name	North	North-West	West	0-20	20-40	40-60	60 and over
<i>Eupatorium adenophorum</i> (Banmara)	48	10	0	32	15	10	1
<i>Eragrastis spp.</i> (Banso ghans)	365	12	100	80	0	380	17
<i>Crassocephalum crepidiodes</i> (Ankhle ghans)	37	25	7	23	0	21	18
<i>Swertia chirayita</i> (Chiraito)	1	0	0	0	0	1	1
<i>Pityrogramma calomelanos</i> (Dankernu)	25	0	0	0	0	0	25
<i>Pteris biaurita</i> (Hadeuneu)	7	4	0	0	1	0	11
<i>Botrychium lanuginosum</i> (Jaluko)	88	0	3	24	0	27	36
<i>Onychium uoponium</i> (Chille fern)	73	0	0	3	5	0	109
<i>Pagonatherum crinitum</i> (Kharu)	142	0	0	120	0	0	22
<i>Smilax aspera</i> (Kukurdiano)	2	1	0	0	0	2	1
<i>Lycopodium clavatum</i> (Nagbeli)	36	45	0	0	0	75	23
<i>Rubia cordiflora</i> (Majitho)	6	8	1	0	1	10	4
<i>Cyperus spp.</i> (Mothe ghans)	3	0	0	0	0	0	3
<i>Drepanostachyum falcatum</i> (Nigalo)	272	0	8	50	0	10	7
<i>Desmotrichum Sp.</i> (Sunakhari)	0	7	2	0	0	2	7
<b><i>Bergenia ciliata</i> (Pakhanved)</b>	<b>565</b>	<b>98</b>	<b>67</b>	<b>18</b>	<b>87</b>	<b>163</b>	<b>462</b>
<i>Nephrolepis cordifolia</i> (Pani amala)	110	25	100	85	0	125	469
<i>Pteris aspericaulis</i> (Pirre sottar)	8	0	100	8	0	100	108
<i>Curculigo crassifolia</i> (Poteroghans)	10	0	0	0	0	10	10
Others (unknown)	283	270	100	241	12	250	118
Grand Total	2081	505	488	684	121	1186	1083
Average value	104.05	25.25	24.4	34.2	6.05	59.3	54.15

The number of *B. ciliata* in summer and winter season with respect to aspects is presented in Fig. 4. The data indicate the number of *B. ciliata* is comparatively higher in summer season than in winter. This might be due to the rain, high temperature and less interference of forest by human and animals in summer season. Further the number of *B. ciliata* increases with slope. The slope of  $60^\circ$  and above is the most suitable for this species in terms of density and biomass.

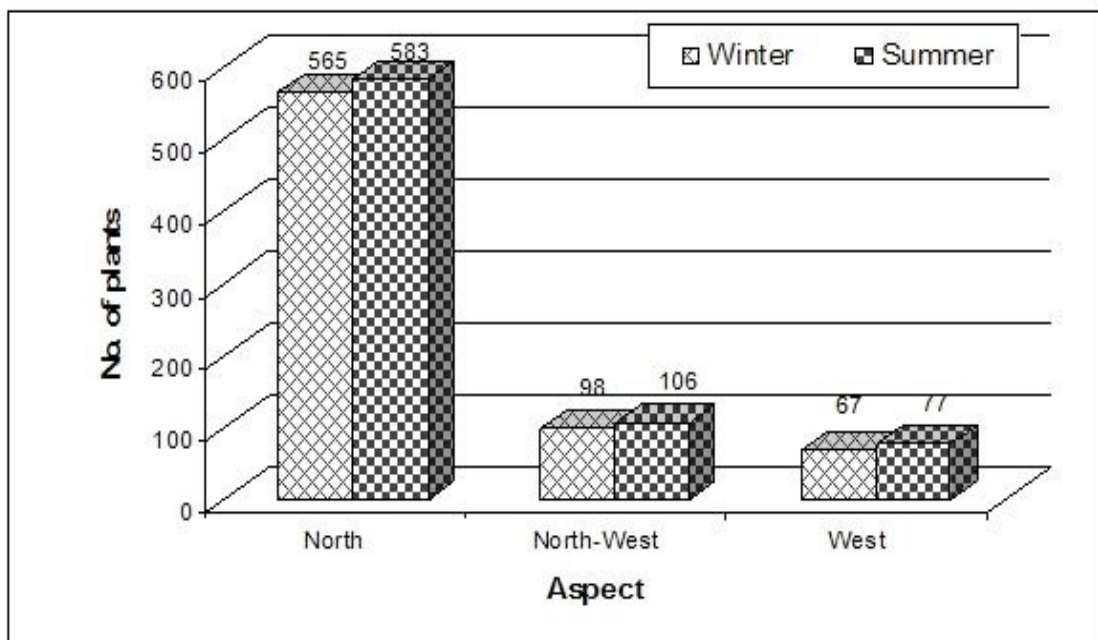


Fig. 4: Distribution of *B. ciliata* with respect to aspects in SSCF

The distribution of *B. ciliata* and associated species with respect to slope in SSCF is given in Table 4. The distribution reveals that greater the slope, higher is the number of *B. ciliata*. But for other associated species, the number is variable on the basis of slope. High number of *B. ciliata* in steep area indicates that it prefers to grow in weakly weathered cracked rocks. Similarly, the average number of *B. ciliata* in winter and summer season with respect to the slope is presented in Fig. 5. The number of species during winter found to be comparatively less than the species in summer, however, their number on the basis of increasing slope is increased gradually. The northern aspect is the most favorable for *B. ciliate* in terms of number of plants.

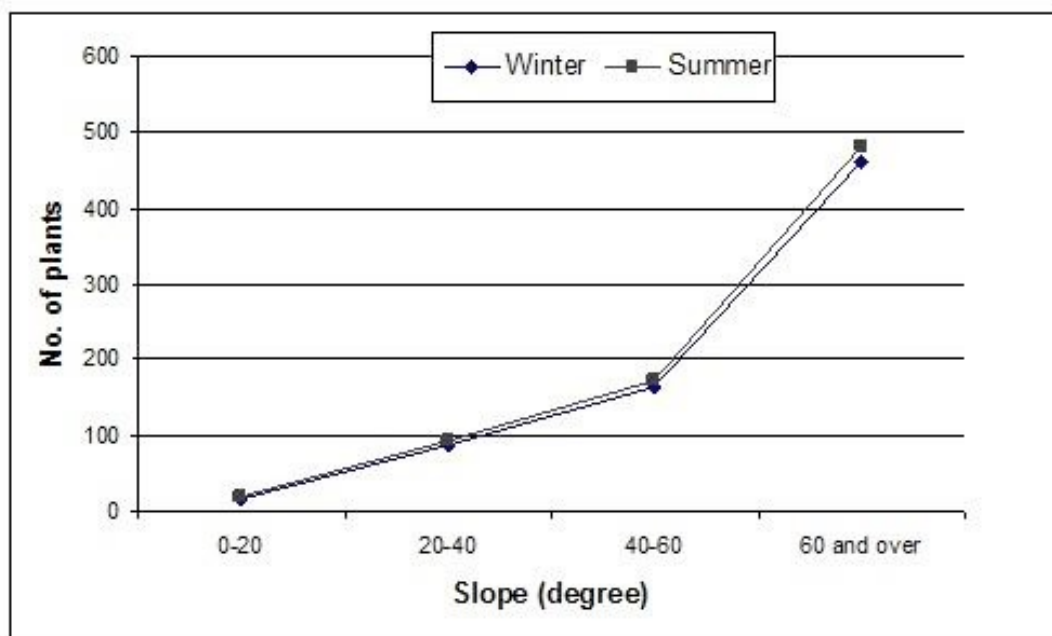


Fig. 5: Distribution of *B. ciliata* with respect to slope in SSCF

### Ecological status of *B. ciliata* and associated species of SSCF

The ecological status of *B. ciliata* and associated species at SSCF in terms of frequency (number of occurrence), relative frequency (%), density/ha and relative density (%) is presented in Table 4 and Fig. 6. The frequency distribution of *B. ciliata* and associated species shows that *B. ciliata* has highest frequency (100.0 %) the followed by *Eragrostis spp.* (90.0 %) *Rubia cordiflora* (60%); *Eupatorium spp.*, *Botrychium lanuginosum*, *Drepanostachyum falcatum*, *Eupatorium adenophorum* and *Nephrolepis cordifolia* (50%), *Crassocephalum crepidiodes* and *Onychium uoponium* (40%) and remaining species have comparatively lower frequency with average frequency 39.5% in comparisons with associated species. The average frequency of herb species at SSCF is found to be 39.5%. Out of twenty herb species studied in SSCF (Table 4), *B. ciliata* has highest relative frequency (12.66 %) followed by *Eragrostis spp.* (11.39%) whereas, the remaining species have comparatively lower relative frequency. The average relative frequency was found to be 5.0%.

The density per hectare of *B. ciliata* was found to be higher than other medicinal shrubs (Table 4). The average density/ha of thirty one medicinal shrubs at this CF was 15370.00/ha.

The relative density of *B. ciliata* is higher than other associated species in SSCF. The average relative density of these herbs was found to be 5.0/ha.

Table 4. Ecological status of *B. ciliata* and associated species in SSCF

Scientific Name/Local Name	Frequency	Relative frequency	Density/ha	Relative density
<i>Eupatorium adenophorum</i>	50.00	6.33	5800.00	1.89
<i>Eragrostis spp.</i> (Banso ghans)	90.00	11.39	47700.00	15.52
<i>Crassocephalum crepidioides</i> (Ankhle ghans)	40.00	5.06	6900.00	2.24
<i>Swertia chirayita</i> (Chiraito)	10.00	1.27	100.00	0.03
<i>Pityrogramma calomelanos</i> (Dankernu)	10.00	1.27	2500.00	0.81
<i>Pteris biaurita</i> (Hadeuneu)	30.00	3.80	1100.00	0.36
<i>Botrychium lanuginosum</i> (Jaluko)	50.00	6.33	9100.00	2.96
<i>Onychium uoponium</i> (Chille fern)	40.00	5.06	7300.00	2.37
<i>Pagonatherum crinitum</i> (Kharu)	20.00	2.53	14200.00	4.62
<i>Smilax aspera</i> (Kukurdiano)	20.00	2.53	300.00	0.10
<i>Lycopodium clavatum</i> (Nagbeli)	30.00	3.80	8100.00	2.64
<i>Rubia cordiflora</i> (Majitho)	60.00	7.59	1500.00	0.49
<i>Cyperus spp.</i> (Mothe ghans)	10.00	1.27	300.00	0.10
<i>Drepanostachyum falcatum</i> (Nigalo)	50.00	6.33	28000.00	9.11
<i>Desmotrichum Sp.</i> (Sunakhari)	20.00	2.53	900.00	0.29
<b><i>Bergenia ciliata</i> (Pakhanved)</b>	100.00	12.66	73000.00	23.75
<i>Nephrolepis cordifolia</i> (Pani amala)	50.00	6.33	23500.00	7.64
<i>Pteris aspericaulis</i> (Pirre sottar)	20.00	2.53	10800.00	3.51
<i>Curculigo crassifolia</i> (Poteroghans)	20.00	2.53	1000.00	0.33
Others (unidentified)	70.00	8.86	65300.00	21.24
Grand Total	790.00	100.00	307400.00	100.00
Average	39.50	5.00	15370.00	5.00

The relative frequency and relative density of *B. Ciliata* and associate species are presented in Fig. 6. The data shows that the relative frequency and relative density of *B. ciliata* is significantly higher than other species.

## Conclusion

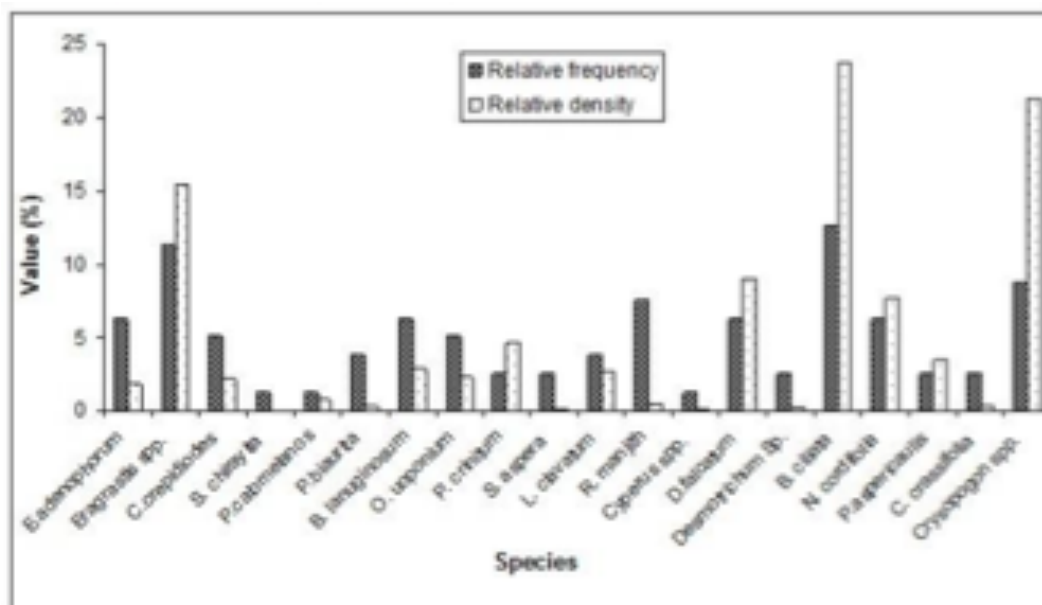


Fig. 6: Ecological status of *B. ciliata* and associated species

SSCF of Kaskikot village is the suitable place to grow *B. ciliata* i.e. mostly in rocky terrain. The relation of this species with altitude and slope added shows direct proportional relationship. The northern, north western and western aspects are most preferable aspects to the growth and development of *B. ciliata* respectively in this study area. *B. ciliata* has highest frequency (100.0 %) followed by *Eragrostis spp.* (90.0 %), *Rubia cordiflora* (60%); *Eupatorium spp.*, *Botrychium lanuginosum*, *Drepanostachyum falcatum*, *Eupatorium adenophorum* and *Nephrolepis cordifolia* (50%), *Crassocephalum crepidiodes* and *Onychium uoponium* (40%) and remaining species have comparatively lower frequency with average frequency 39.5% in comparisons with associated species. The relative frequency and relative density of *B. ciliata* seem to be higher than other associated species.

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## References

- Asolkar, L.V. Kakkar, K.K. and Chakre, O.J., 1992, Glossary of Indian Medicinal plants with Active Principles, PID, CSIR, New Delhi, 122p.
- Biwas, K., 1955, Common Medicinal Plants of Darjeeling and Sikkim Himalayas, The herbarium, Indian Botanic Garden, Calcutta, pp. 54.
- Chopra, R.N. Chopra, I.C. Handa, K.L. and Kapoor, L.D., 1958, Medicinal ferns, In Chopra's Indigenous Drugs of India, 2nd edition, UN Dhar and Sons, Calcutta.
- Chowdhary, S. Kumar, H. and Verma, D.L., 2009, Biodiversity and Traditional knowledge of *Bergenia* spp. In Kumaun Himalaya, New York Sci. J, v. 2(6), pp.105-108.
- Chowdhary, S. Kumar, H. and Verma, K. R., 2010, Quantitative Assessment of Current Status and Biomass of *Bergenia ciliata* and *Bergenia Stracheyi* from Kumaun Himalaya, International Journal of Applied Biology and Pharmaceutical Technology, v. I, Issue-2, pp. 360-366.
- Hara, H. Chatter, A.O. and Williams L.H.J., 1982, An enumeration of flowering plants of Nepal, Vol. 3, British (Natural History) Museum, London.
- HMG, DOFSC., 2004, Community Forest Resource Inventory Guideline, MOFSC, Babar Mahal, Kathmandu, Nepal.
- Kala, C.P., 2000, Status and conservation of rare and endangered medicinal plants in the Indian Trans- Himalaya, Biological Conservation, v. 93, pp. 371 – 379.
- Kanel, K.R., 2001, Policy and institutional bottle necks: possibilities of NTFP development in Nepal. In: Bhattarai, N. and Karki, M.B., (eds.). Sharing local and national experience in conservation of medicinal and aromatic plants in South Asia, Proceedings of the Regional Workshop held at Pokhara, Nepal, pp. 21-23.
- Kapur, S.K., 1993, Ethnomedicinal plants of Kangra valley (Himachal Pradesh), Journal of Econ. Tax. Bot. v. 17, pp. 395-408.
- Malla, S.B. Shakya, P.R. Rajbhandari, K.R. Bhattarai, N.K. and Subedi, M.N., 1995, Minor forest products of Nepal: general status and trade. Forest resource information system project (FRISP) paper No. 4, HMGN/FINNIDA, pp.27.
- Olsen, C.S. and Helle, F., 1997, Medicinal plants, markets and margins in the Nepal Himalaya: trouble in paradise. Mountain Research and Development, v.17 (4), pp. 363-374.
- Premakumari, C. and Arulmani, J. J., 2006, Medicinal Herbs and Plants of Nepal having Hypoglycemic Properties, Panacea Journal of Health Sciences, v. 2, ISSN, pp. 2278-4330.



- Press, J.R. Shrestha, K.K. and Sutton D.A., 2000, Annotated checklist of the flowering plants of Nepal, The Natural History Museum, London.
- Rai, L. and Sharma, E., 1994, Medicinal Plants of the Sikkim Himalaya, Bishen Singh Mahendra Pal Singh, Dehradun, India, pp. 32 – 33.
- Shrestha, T.B. and Joshi, R.M., 1996, Rare, endemic and endangered plants of Nepal, World Wildlife Fund (WWF, Nepal Program), Kathmandu, Nepal.
- Shrestha, T.B., 2000, Unpublished manuscript submitted to TISC, Nepal.
- Singh, P.B. and Aswal, B.S., 1992, Medicinal plants of Himanchal Pradesh used in India Pharmaceutical Industry, Bull. Med. Ethno. Bot. Res. 13, pp. 172-208.
- Sinha, S. Murugesan, T. Muriti, K. Gayen, J.R. Pal, M. and Saha, B.P., 2001, Evaluation of anti-inflammatory potential of *B. ciliata* Sternb. Rhizome extract in rats, J. Pharma Pharmacol, v. 53, pp.193 – 196.
- Uniyal, S.K. Awasthi, A. and Rawat, G.S., 2002, Current status and distribution of commercially exploited medicinal and aromatic plants in upper Gori Valley, Kumaun Himalaya, Uttaranchal, Curr. Sci. 82 (10), 1246p.

# Concept and Perception of Biodiversity Conservation in Community Forest Users

*Bijaya Babu Adhikari\**

## **Abstract:**

*Biodiversity is the collective form of living organism within an area destined by the topographic as well as climatic factors. Nepal is ranked in 25<sup>th</sup> position in the world for biodiversity richness. Community forestry's contribution is talked much about conserving biodiversity in Nepal; in this regard this study attempts to illustrate whether community forestry is conserving biodiversity with the study of concept and perception of community forest users about biodiversity. This study was carried out in a community forest user group (CFUG) of Kaski district. It reveals that although community forest has contributed in biodiversity conservation, the silvicultural activities adopted by the forest users were not designed from the biodiversity conservation point of view. Biodiversity is conserved without knowing what it is; hence the silvicultural activities of these CFUGs were not found eco-friendly. This research recommends the concerned authorities to carryout the rigorous awareness campaign among CFUGs so that the users can conserve biodiversity through utilization and maintenance of resources in the local level.*

**Key words:** *Biodiversity, Community Forest, Flora, Fauna, User Group (CFUG)*

## **Introduction**

The word 'biodiversity' is a short form of 'biological diversity'. 'Diversity' is a concept, which refers to the range of variation or differences among some set of entities. Biological diversity thus refers to variety within the living world. The term 'biodiversity' is commonly used to describe the number, variety and variability of life forms, levels and combinations existing within the living world. In broader sense biodiversity is a synonym of 'All life on the Earth' (Lekhakh and Lekhak, 2003).

Most of the countries across the globe are practicing forest management and biodiversity conservation with decentralization and devolution of authority since 1980s. Brundtland Commission's report (1987) and United Nations Conference on Environment and Development (UNCED, 1992) placed premium in people's participation in both forest management and biodiversity conservation. Community Forestry Programme in Nepal is one of the most often-cited success stories in terms of devolution of forest management authority. It has helped to extend a green blanket of woody vegetation into the mid-hills and has yielded a variety of benefits to the community members. However, it is still unclear whether the nation-wide programme has helped to conserve biodiversity (Mikkola, 2002).

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Vegetation types from tropical to arctic are represented in Nepal with thirty-five forest types described based on altitude and climate (Chaudhary, 1998). The expectational altitude gradient is a key reason for country's biodiversity richness. With land area of only 0.1 percent of world's total Nepal claims 8.5 percent of global bird species, 4.2 percent of butterflies, 2.2 percent of freshwater fish species and 2.2 percent of flowering plants. More than 5000 species of flowering plants have been recorded, 246 of which are endemic to Nepal. 175 species of mammals, 836 species of birds and 180 species of fishes have been recorded, many of which are endangered. Many more species could be recorded, as some inaccessible areas with unique ecosystems are still to be studied by scientists (Mikkola, 2000).

### **Community forestry in Nepal**

The community forestry program was initiated on 1978 on the ground of rapid decline of forests area and biodiversity. It is a partnership between local communities and the government for protection, management, and sustainable utilization of forest products and ecosystem services to meet the daily need of local community. Master Plan for Forestry Sector (MoFSC, 1989) fully recognized the need of peoples' participation, and Forest Act (1993) provided detailed guidelines and policy framework for community forestry. The main components of the program are: formation of community forest users' groups (CFUGs), the preparation of operational plan, approval of the operation plan by district forest office (DFO), and hand over of the forest to the community (HMG, 2002). In this legal and strategic framework, the CFUGs have been, managing, protecting, and utilizing forests for more than four decades. Up to now 35 percent of the population of Nepal is involved in community forestry management program. To date, **19,361** Community Forestry User Groups (CFUGs) have been formed of which are composed of **1072** women only committee members. A total of 18,13,478 hectares of National forest have been handed over as community forests and **24,61,549** households have benefited (GoN, 2018).

### **Biodiversity conservation in community forestry**

National Forestry Plan (1976) for the first time encouraged the involvement of local people in participatory natural resource management (Acharya, 2002). With this new paradigm of involving communities in resource management, the community forestry program was formally initiated under the legislative framework of Panchayat Forest Rules (1978) and the Community Forestry Programme (1980) by giving right to local communities to manage forest. The Master Plan for the forestry Sector (1989), the Forest Act (1993), the Forest Regulations (1995), and the Forestry Sector Policy (2000) reaffirmed government's policy to implement and strengthen the community forestry program. Forest Act (1993) incorporated the issues of biodiversity

conservation by providing different provisions relating to protected forests, community forests, and leasehold forests however, very little is mentioned to incorporate biodiversity conservation in community forests in Forest Act. Several efforts had been made to incorporate biodiversity conservation into policy, planning, and strategy; however, the issues of biodiversity conservation were much focused and confined only in conserving species, habitats, and ecosystems located inside the protected areas prior to 2000. The National Biodiversity Strategy (2002) urged to integrate the conservation of biological diversity and the sustainable use of its components into sectoral and cross-sectoral plans, programs, and policies (HMG, 2002). It also identified the need, constraints, and gaps of conserving biodiversity outside the protected areas especially community forests of the Mid-hills. More recently, the issues of biodiversity conservation and ecosystem services have been incorporated in Community Forestry Guidelines (2009). It is yet not free from the traditional utilitarian concept; under the guidelines, CFUGs have to make inventory of only useful plants, not all the species reside in the forests. The usefulness again is based on the personal judgment and state of knowledge. Thus, it would not make a significant change on current management practices, practices which that have been turning diverse forest into monoculture. Although the number and coverage of community forests have been increased, there exists limited information on biodiversity conservation in terms of species richness, taxonomic diversity, and crown coverage due to the lack of an in-depth study and research (GoN, 2009). Due to lack of baseline information, it becomes harder to investigate the impacts of management interventions over the time. Much has been written and debated on the policy (e.g. Acharya, 2002; Springate-Baginski et al., 2003; Gautam, 2006; Ohja et al., 2009) and socioeconomic aspect (e.g. Timsina, 2003; Nightingale, 2003; Adhikari et al., 2004; Iversen et al., 2006; Sapkota and Oden, 2008) of community forestry, but conservation of biodiversity and maintenance of ecosystem services in community forests have been given very little attention in policy forum and by forestry technicians. It is essential to think about maximum utilization of forest resource but at the same time we should concern about maintaining biological diversity and conserving the ecosystem services in the forest.

## **Methodology**

To conduct this study random sampling was applied since the universe is more or less homogeneous. This is qualitative research since concept and perception is sought. Some important information about Kaski district was collected by FECOFUN Kaski and the primary data were collected with the help of the questionnaire, observation and personal interview methods.

## **Results and Discussion**

## **Efforts CFUG for the Protection**

The forest was in very poor condition before it was handed over to the CFUG and now it was found in very good condition. The number of forest users has also increased by three times in 25 years. The efforts made by the CFUG to protect forest resources are as:

- Fencing
- Pruning
- Provision of forest guard
- Division of forest into different plots
- Plantation
- Auction of grass and old logs
- Banning on poaching
- Banning on cattle grazing
- Banning on red mud dugout

## **Familiarity of Forest Users with the term ‘Biodiversity’**

60 percent CFUG members of research area have heard the term biodiversity. Among them half just heard it from different sources in meetings and gatherings but don't know what does it means. It means 30 percent of them were found familiar with the term biodiversity. The meaning of biodiversity according to them also varies from the exact meaning. Most of them argued that the natural form of the forest is biodiversity. Some said that biodiversity is conservation of forest. Some of the members who were in leadership explained biodiversity as coexistence and togetherness of all living beings. Those who have heard the term were in side of conservation of biodiversity for different reasons like for the beauties of the forest, conservation of forest products, conservation of water sources etc. Here the forest is found to be conserved without knowing the proper meaning of biodiversity.

## **Desired Forest of the Forest Users**

The CFUG members who expect their forest should be full of diversified flora and fauna are found very low in number, only 20 percent of the them express their forest should have all the flora and fauna which are destined to be there by the nature. Mean while 50 percent of surveyed population have said that they desire their forest should have some selected species only and the unnecessary plants should be removed. Since the human settlement and the forest are very close to each other they have very few experiences of being harmed by forest animals specially the leopard. Some of the users even argued that they should not have animals like leopard and jackal. It also concludes that most of the respondents want only the preferred species not the

diversified forest.

### Differences Before and after Community Management

These forests were handed over to the community 25 years ago. When the forest users were asked about the condition of forest before the handover almost all gave similar answer. When the forest was under government control there was a forest guard employed by the government but the forest was in pity condition. Most of them shared that they used to bring all possible forest product just by tricking the guard, the community members had unfair competition to steal forest products even at the time they do not need them. Slowly they faced scarcity of every forest product and motivated to conserve it by themselves. Nowadays they seem proud of their forest. They have done plantation on most of the barren part and conserve the natural forest in previous natural forest area. Nowadays the forest seems dense. They nearly do the pruning activity once in a year in a definite plot which gives them required firewood. They even opined that the locality is urbanizing and people have access to gas which had reduced their demand of firewood.

### Preferences of Plants for Protection

When the users were asked how they should treat with new plants 40 percent of them said they should be removed since they encroach the area for native species. 20 percent said they should be protected. Other 30 percent said they should be left to grow on their own. Remaining opined that they should consult with forest specialist what types of species are they and how should be treated. In their practice the CFUG has five different plots in the forest and preference of plants in those plots are found little bit different.

Plot no.1	Plot no. 2	Plot no. 3	Plot no. 4	Plot no. 5
Rudrakksha (Elaeocarpus ganitrus) Kapoor (camphor/ Dryobalanops aromatica Chanp (Michalia Champaka)	Chilaune (Schima wallichii), Kantus (Castenopsis indica)	Chilaune (Schima wallichii), Kantus (Castenopsis indica), Kafal (Myrica esculenta), Paiyu, Chanp (Michalia Champaka)	Chilaune (Schima wallichii), Kantus (Castenopsis indica), Jamun (Syzygium cumini), Tiju, Uttis (Alnus nepalensis)	Tiju, Sallo (Pinus), Chanp (Mihcalia Champaka)

## **Hunting, Poaching, Grazing and Stealing of Forest Product**

All of the respondents said that hunting, poaching, grazing and stealing of forest product was always restricted in the forest whether it was under government control or under community management. However, those people who were involved in such activities in the past are found in the forefront of the conservation process now. All of the respondents opined that hunting and poaching came to negligible condition these days and it should be stopped to raise the beastliness of the forest. Although some respondents said that they had heard gunfire in the forest at night time which was to kill 'kalij'(Lophura leucomelanos).

Some of the household were still using red-mud to décor their houses. In the field observation some mud pits were found from where red mud is dug out. While asking about forest land encroachment no evidence was found.

## **Disappearance or Reappearance of Flora and Fauna**

After the community management the forest became denser and had developed habitats for many species of birds and animals. Number of leopards was increased, they even had seen some deer after long time in the forest, new and strange species of birds have appeared. Regarding the plants Simal (Bombax ceiba) had been completely disappeared in forest and Banmara (Ageratina adenophora) was encroaching the forestland for the endemic species. Chilaune and Katus were found increasing their number. Rudraksha, Chanp, Kapoor and Sallo were the new plants for the forest which were planted by the CFU members and a beautiful forest of these species can be observed there in first and fifth plot.

## **Conclusions**

This study reveals that although community forestry has contributed in biodiversity conservation, the silvicultural activities adopted by the forest users were not designed from the biodiversity conservation point of view, due to the lack of knowledge about the importance of biodiversity and its conservation their efforts were found insufficient. CFUGs have contributed a lot to conserve the biodiversity without knowing it properly. These conservation activities would have been more effective if the people involved had understood the exact meaning and importance of biodiversity.

Community forestry has many positive impacts towards the conservation and some negative impacts too. These negative impacts will pose threat to biodiversity if not corrected. CFUGs and government official have given less attention to the attributes of biodiversity, ecosystem functions and services. Short-term economic motive, elite sanction, and knowledge gap are

the major constraints for achieving the goal of biodiversity conservation through community forests.

Communities are not only unaware about maintaining biodiversity, forest health, and ecosystem services of the forest but also misinformed to set the goal of sustainable forest management. They are inclined toward increasing monoculture of high economic valuable species and greenery of the forest rather than the natural forest, which could be habitat of all types of living organisms from smaller lichens and fungi to larger plants and animals. Scientific knowledge about taxonomy, conservation status, methods of propagation, and utilization of species is necessary and that should be combined with the local or indigenous knowledge to design sustainable forest management goal. Forests is not only the stocking of trees and sources of timber but also is the store house of biodiversity and sources of many ecosystem services such as balancing environment, soil conservation, nutrient cycling, pest and disease control, drinking water, crop pollination, and climate regulation etc. Thus, forest conservation should not be perceived only as increasing the number of economically important trees but should be perceived also as the conservation of ecosystem function and service of the forest. For the maintenance of ecosystem function, every species, whether important economically or not, should be conserved and maintained in nature.

Community forestry has become an indispensable part of the rural livelihood and an important component of forestry sector of Nepal. There is no doubt that community forests have laid the foundation for biodiversity conservation by reversing the trend of deforestation and increasing regeneration. However, it is essential to change the current management practices that affect the composition, structure, and function of forest negatively.

## **References**

- Acharya KP, Gautam KR, Acharya BK, Gautam G (2007). Participatory assessment of biodiversity conservation in community forestry in Nepal. *Banko Janakari* 16: 46-56.
- Acharya, K.P. (2003), *Conserving Biodiversity and Improving Livelihoods: The Case of Community Forestry in Nepal*, Proceedings of International Conference on Rural Livelihood, Forests and Biodiversity, 19-23 May 2003, Bonn: Centre for International Forestry Research
- Chaudhary, R.P. (1998) *Biodiversity in Nepal-Status and Conservation*, Tecpress Books, Bangkok.
- HMG (2002). *Nepal Biodiversity Strategy*, government strategy paper, His Majesty's Government of Nepal/Ministry of Forest and Soil Conservation, Kathmandu, Nepal.
- ICIMOD (2007). *Nepal Biodiversity Resource Book* (Protected Areas, Ramsar Sites, and World



- Heritage Sites, ICIMOD, MOEST, GoN, Kathmandu, Nepal.
- Lekhak, H.D. and Lekhak, Binod, (2003), Natural Resource Conservation and Sustainable Development in Nepal, Kathmandu: Kshitiz publication, Vol. 25 No. 2/3/4, 1998, p.226-243 0306-8293, MCB University Press,
- Michael P. Wells and Uday R. Sharma (1995), Socio-economic and political aspects of biodiversity conservation in Nepal, International Journal of Social Economics
- Mikkola, K. (2002), Community Forestry's Impact on Biodiversity Conservation in Nepal, Dissertation Submitted in partial fulfillment of the requirements for the M. Sc. Environmental Management for External Students of the University of London, Imperial College at Wye
- Shrestha Uttam Babu, Shrestha Bharat Babu and Shrestha Sujata (2010), Biodiversity conservation in community forests of Nepal: Rhetoric and reality, International Journal of Biodiversity and Conservation Vol. 2 (5), pp. 98-104, May, 2010
- United Nations Environmental Program (1992), Convention on Biological Diversity, Geneva Switzerland.

# Role of Institutional Schools in Empowering Female Teachers

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## **Abstract**

*Role of Institutional Schools in Empowering Female Teachers has been carried out with the main objective of studying gender environment in institutional schools and the empowerment status of female teachers teaching there. Women are found suffering from various types of biases in the traditional male dominated society of Nepal. Females are economically dependent on males. They lack the access to the organizational resources and are discouraged to play the role of decision- maker in the family as well as in the organizations where they are employed. Based on the above hypothesis, this research study was carried out with the help of qualitative data analysis method. Information and the data were collected with the help of different tools like the set of questionnaires including both open-ended and close-ended questions, discussion with focus group, interview guidelines, and observation form and so on. The data revealed that the institutional schools have created opportunities for the educated females helping them to come out of the household boundaries. Involvement of women in schools as a teacher has a great influence in their personal development, as well as economic and social empowerment. The increased income helps to lessen their dependence on male member of the family and enables to spend for personal expenses. The female teachers also can contribute to their family affairs financially which creates an environment in the family in favour of women to accept their views and participation in family matters like education of children, marriage of family members, purchase of goods property and so on.*

*Keywords: Empowerment, feminist movement, gender inequality, institutional schools.*

## **Introduction**

Although much progress has been made in the lives of women since the 1960s with the women's movement receiving additional momentum following the first world conference on women in 1975, gender inequality still persists in many areas of women's lives. Women's subordination remains widespread and deep. Worldwide, women have limited access to resources. They do more than 60 % of the hours of work done in the world but they share only 10 % of the world's income and 1% of the world's property (Curtis, 2003).

Despite the fact that much progress has been attained in the field of education, women still comprise two-thirds of all the illiterate people of the world. Maternal mortality is still very high, particularly in the developing countries like Nepal. Poverty, to a significant extent, has female faces. One-fifth of the world's population live under absolute poverty. A majority among them

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are women. In some countries women fulfil nearly half of the labour force. Women's economic involvement increasing with paid jobs is becoming the new norm in the developed countries. The developing countries are following the same track. However, most women remain in low-paid and semi-skilled or non-skilled jobs. Very few women work at decision making levels (Dixon-Mueller, 1998).

The overwhelming of workers are still self- employed or are own account workers while 18.2 percent (aged 15 and above) are employed in non-agricultural informal sector (NLFS II 2010). The percentage of self- employed workers which remained more or less constant at about 80 percent between 1971 and 1981 has decreased to 75 percent in 1991. That decrease is mainly accounted for by males. In other words, a larger proportion of women are self- employed than men. There is a slow but perceptible change taking place in the employment status of the population. The proportion of both male and female employees in the population is increasing while that of the self- employed or unpaid family workers is decreasing. This signifies a positive or negative trend, depending on whether those who moved out of the self- employment are getting better jobs or just moving out because of impoverishment (Acharya, 1994). The concept of empowerment is not a new one. References to the term date back to the 1960s, particularly in the Afro-American movement and in Paolo Freire's theory based on the development of the critical conscience. Since 1985, popular women's movements in Latin America and the Caribbean as well as feminist movements have seen the notion of empowerment as being tied, on the other hand to the seizing of power by emphasizing mainly the improvement of self-esteem and self-confidence as well as the ability to choose what direction one's life should take; and on the other hand to the collective power to change gender relations in the economic, political, legal and social- cultural spheres.

At the level of development bodies, the concept of empowerment was adopted after Beijing Conference 1995. The Beijing Declaration (section 13), present women's empowerment as a key strategy for development: "Women's empowerment and their full participation on the basis of equality in all spheres of society, including participation in the decision making process and access to power, are fundamental for the achievement of equality, development and peace". Unfortunately, the approach as used by development bodies and the offered quantitative indicators tend to reduce its scope to women's ability to take individual responsibility by their own.

In the field of education, gender disparity has been a chronic problem in ever since Nepal launched planned efforts for the development of formal schooling. All available educational indicators suggest that girls are far behind than boys in terms of enrolment, retention, grade promotion and learning achievements. Girls' chances of making to the top of the educational

ladder are much slimmer than those of boys. These disparities are deeply rooted in the socio-economic, cultural and political system of the country. In this context, the government of Nepal has for a long time adopted the strategy of deploying female teachers in schools in order to reduce gender disparity in education, but most particularly to increase girls' participation and retention in primary education.

Studies both in Nepal and elsewhere have shown that female teachers provide better role models for girls and are better placed to respond to problems faced by girls in schools. It has been frequently reported that both parents and girls feel safe and comfortable when female teachers are present in schools. In 1971, the government launched the Equal Access of Women to Education Project (EAWEP) with the purpose of increasing girls' participation in education through the production and recruitment of female teachers. While there were not many qualified and educated women, the program tried to recruit women with reduced experience or qualifications to be educated and trained as teachers and be deployed to work in rural areas upon completion of their education and training. Educational planners and policymakers in Nepal have recurrently recognized the fact that deploying female teachers can be an appropriate educational strategy to address gender disparity in education (Bista, 2006).

Government efforts to increase the number of female teachers continued through the 1980s and 1990s. In 1993, the government launched another nationwide drive to recruit the female teachers under the first phase of the Basic and Primary Education Project (BPEP I). By the end of the project in 1998, the government was able to recruit some 4200 female teachers as targeted in the project document. The mass recruitment and deployment of female teachers through centralized, non-competitive and non-transparent procedures could be blamed for the unfair distribution of teachers. Consequently, the BPEP efforts of recruiting female teachers resulted in the oversupply of female teachers in the schools of district headquarters and undersupply of the same in rural areas. It was recognized that the shortage of female teachers could not be without a firm policy. In this regard, the government announced a female teacher policy requiring schools to recruit at least one female teacher in each primary school of the country. Although the policy brought new awareness about the importance of female teachers, it remained mostly on paper due to a number of reasons. Most recently, the Ministry of Education and Sports (MOES) has adopted a policy of recruiting two female teachers in each primary school. In a directive issued by the MOES, District Education Offices and schools have been instructed to give priority to females in the recruitment of teachers as teacher posts remain vacant. As a result of the consistent government efforts and drive, the proportion of female teachers increased from less than 1 percent in 1975 to 19 percent in 1998 and 30 percent in 2003. (Source: MOES website).

In the recent times there has been certain changes in the status of Nepalese women, even

though the number of female officers is quite negligible in comparison to men but women now are found employed as clerks, secretaries, receptionists, nurses, doctors, administrators, pilots, bank employees and school teachers. The private and institutional schools are among the other employers where a remarkable number of female teachers are recruited. This is the good indicator for their career development and becoming independent. It is important to reinforce the self- confidence, self-worth and capability of women for effective participation in decision making structures and processes. Women's physical presence at all levels of decision making processes should be supported by their effective participation. The primary objective of this is to trace the existing status of female teachers in institutional schools of Nepal and the role played by the organization where they work to empower them in different aspects of their life.

Many programmes and activities launched earlier to enhance girls' and women's participation in basic and primary education will be continued. His Majesty's Government of Nepal had launched a programme known as 'Education for All' (EFA) from 2004 to 2009. The EFA programme had made provisions for improving the number and status of the female teachers. Some of them included: (a) introduction of appropriate affirmative action for the recruitment of female teachers, (b) adoption of gender sensitive policies in order to promote the role of women in the management of education, (c) integration of gender issues in teacher training packages and programmes, (d) development of gender sensitive curriculum and materials, (e) appointment of female teachers through localized and transparent teacher selection procedure, (f) provisions of incentives for women to study the field of education to attract them into teaching etc. (MOES, p.29).

## **Theoretical Discourse**

Empowerment theory is deeply embedded in teaching about educational leadership. The subject of empowerment has a long history incorporating the fields of psychology, sociology and education. Friere (1968) describes it as an intentional, ongoing process, cantered in the local community, and involving mutual respect, critical reflection, caring, and group-participation as well as decision making. Through such actions people lacking an equal share of valued resources gain greater access to, and control over, those resources. Rapp Port (1977) discusses it as a mechanism for the generation and distribution of social power in the form of access to and control of resources. Rogers (1979) moves the concept of empowerment squarely into the realm of human meaning-making, stressing the "perceived" sense of power within a synergistic paradigm. Rapp Port's exploration (1981) of the subject emphasizes the long – term processes of learning and development of individuals' rights and abilities, indicating the empowerment is directly related to social structure, and that social development and personal development are interconnected. Subsequently, Rapp Port (1984) describes empowerment as a mechanism by

which people gain mastery over their own lives together, both in terms of process and outcome mastery (p. 1 – 7 ), and in the same edited volume Kieffer (1984) describes empowerment as “the continuing construction of a multi – dimensional participatory competence” (p. 9) combining both cognitive and behavioural change. In essence, these authors acknowledge the distinctiveness and complexity of the learner in empowerment but also emphasize the relationship between the broader social system and the individual.

Since the mid1980s this multi – disciplinary viewpoint about empowerment has been fully embraced, as echoed by the Cornell Empowerment Group’s meta – study (1989) and by many subsequent authors. For example, Fullan and Hargreaves (1996) describe the practices of collaborative problem-solving and open communication as necessary components of empowerment. They add that the manifestation of competence requires resources for personal and professional learning, and that continuous assessment must occur. Because change unfolds in non-linear ways, one must interpret and use data, develop an inquiry habit of mind, become data-literate, and create an ongoing culture of inquiry (Earl, 1995). Competence here can be understood as an individual’s capacity to bring about social (or in this case educational) change, and that such change is itself a necessary element for the development of empowerment. In short, empowerment is a process in which people, organizations and communities gain mastery over their own lives

## **Research Methods**

The study is mainly focussed on to explore the empowerment approaches practised in the institutional schools. Hence, the research design is the combination of exploratory and descriptive designs. Education level, position/status acquired in the organization, income level, control over resource, participation in decision making level is studied as the different variables. On the basis of information and data sought, this design is basically qualitative research however it is required to take help of some statistical diagrams where necessary which is not meant for quantitative design. Questionnaires relevant to the topic and the objectives were set manually. The respondents were met personally and the set of questions was provided to each respondent separately to write in by taking necessary time. So, the structured and semi-structured questionnaires including both close-ended and open-ended questions were the major tools of the data collection. The male teachers, principals and the students were taken as the source of data mainly to seek their perceptions about the female teachers. As far as practicable, the data was analyzed using both qualitative and quantitative research techniques. For quantitative data, simple statistical tool like pie-chart is used. Sample attempts were made for maintaining the objectivity of the qualitative data and to avoid data errors by comparing them with other data collected from different sources.

## **Results and Discussion**

### **Attitudes and Perceptions of Male Teachers towards Female Teachers**

One of the major purposes of this study is to determine the attitude and perception of male teachers of institutional schools towards their colleague female teachers. Specially, attitudes of male teachers in the area of job competency, leadership qualities and efficiency were studied. To investigate the facts about above points, separate research questionnaires were developed for the male teachers and asked to answer them by taking necessary time. There were altogether twelve questions included in the set of questionnaires. Randomly four teachers from each sample school were provided with those set of questions. Altogether sixteen male teachers took part in the survey.

### **Efficiency of Female Teachers in the View of Male Teachers**

To know the view of the male teachers regarding the efficiency of female teachers, there was asked a close-ended question if they think female teachers and male teachers are equally efficient at their work. Also, it was asked if females and males are equally intelligent. Out of the sixteen respondents, twelve have said that female teachers and male teachers are equally efficient at their work; while four of them have admitted that female teachers are not efficient as male teacher. Since the majority of male teachers think that female teachers are also efficient as male teachers, they have positive view towards female teachers. If the colleagues working in the same institution have positive view then there will be favourable working environment for them which ultimately is beneficial for female teachers. Such environment in the workplace is helpful for the female teachers to develop their career and empower themselves.

Apart from the job scope itself, one factor that significantly influences how a female teacher feels about her work is the environment where she works. Work environment is everything that forms part of employees' involvement with the work itself, such as the relationship with the co-workers; subordinates and seniors, organizational culture, room for personal development etc. A positive work environment makes female teachers feel good about coming to school and this provides the motivation to sustain them throughout the day.

### **Teacher-Teacher Relation between Male and Female Teachers**

The relationship among the teachers working together in the same school is important for the career development and personal empowerment of the female teachers. If they have good relationship among them, the female teachers can get necessary help and support from their male colleagues in the hardships. They can put their opinion freely and take part in necessary discussion which helps them to develop their level of knowledge. Even if sometimes they



get confused about some subject matters of their related subject, they can consult with senior male teachers, most of the teachers in secondary level are males, without hesitation. But if the relationship between male and female teachers is not so good then it may be hard for the female teachers to enhance their professional skills because there is dominance of male teachers in senior level and most of the schools have male in the post of principal and other administrative body.

To investigate the relationship between male and female teachers, almost all male respondents have said that they have friendly relation with the female teachers. Some of them have said that they have professional relation with the female teachers. In the same quarries one of the male teachers said that he has very common and friendlier relation with the female teachers teaching together in his school and they do not have any negative argument with the female teachers. Some of them argue that they support the female teachers in various matters of teaching learning activities and sometimes other unrelated matters too. One of the male teacher says that the argument is mostly related to teaching learning activities, sometimes beyond it too. Another teacher says that female teachers argue in other matters not about the teaching learning process.

It is said that the women talk more about their personal affairs rather than professional matters. Do you agree? Why? This was the next question to the male teachers and all the respondents, 16 out of 16, agree that female teachers talk more about their personal affairs among themselves rather than professional matters. One teacher agree with the statement because, he thinks, talking about personal affairs is their natural gift. Another teacher respond that it is biological and social fact that females are more interested about their personal matters. Some other statements given by the respondents are: *"Somehow I agree because of their nature or habit"*. *"Yes, because they may feel burden of societal, domestic and familial matters"*. *"Yes because it is the nature of the women"*. *"Yes I agree with it because they are habituated to do it"*. Citing an earlier assertion made by psychiatrist Louann Brizendine reports that the average women speaks about 20000 words a day, while the average man utters about 7000 words. In addition, a number of earlier studies have shown that girls start off with better language skills than boys, according Science magazine. The new study published in the journal of Neuroscience suggests that higher levels of FOXP2, a language protein, are found in the brains of women that may account for disparities in verbosity.

The above facts also suggest us that it is biological and natural for a woman to speak more than a man and in such female teachers also talk more about themselves, their family matters and their personal affairs. No matter if they have more talking capacity, they should utilize this natural gift to obtain more knowledge and strengthen their professional relationships with male teachers so as to empower themselves.



## **Perceptions of Male Teachers towards Female Teachers**

A way of regarding, understanding or interpreting something or someone is perception. Everybody perceives things differently. That does not mean that one person is right and the other is wrong. It means that communication between the individuals who have different perspectives requires more understanding, negation, persuasion and tolerance of those differences. After the conversation and interview with the male teachers, a list of questionnaires including both closed-ended and open-ended questions were presented to them for writing. One of the open-ended questions was- do you have something to say about female teachers? Please have your say. This question was intended to investigate the perceptions of male teachers towards their co-worker female teachers. And to the answer of this query, a teacher from Lotus Academic School writes: “A mother knows about her children more than a father does. I think a female teacher can involve herself with the children’s psychology and sentiment rather than a male teacher. So it’s good to have female teachers at schools”.

Analyzing the above statement given by the male teacher of an institutional school, it is important that there should be appointed female teachers in every levels of school education. It’s generally installed in man (even in animals) to love and respect a woman more than a man. Women can bear some pain and then see a child smile. It means women teachers have some love and affection towards a student child as they themselves are mothers. They know how to deal with a child and what a child thinks of. They have more patience also. A woman with patience can tolerate more of naughtiness of a child. They can view a student child with care and affection. They also know how to handle children’s emotions. In the same question, another male teacher of same school expresses that: “I think female teachers also have the capacity to develop good professionalism in their career but it is only possible if they are provided with equal rights and opportunities”. Another male teacher respond that “Try to be generous and kind to the students and be professional”.

Analyzing the thoughts of those male teachers, it can be said that developing professional competence and enhancing credibility are essential for the female teachers in institutional schools for their professional growth, development and empowerment of themselves. According to them female teachers lack professionalism. They require more professional trainings. Being professional is to pay attention on organizational culture and follow them. While the basic principles of individual professionalism are universal, it is also defined by a set of responsibilities set forth by an organization for its members or staff to follow. Incorporating professionalism in the workplace is a critical element for any school/organization desiring to achieve success. And the success of an organization is directly associated with the success of its staff members. Majority of male teachers agree that female teachers are less professional, they talk more about

their personal affairs and spend time gossiping. In the same context, a teacher respond that: “Although male and female teachers are equally intelligent, females are weak in decision making and leading. They have a very bad habit of gossiping with other fellow teachers. Accumulating at a place, talking household and personal affairs etc. are their demerits”.

Gossiping at workplace is a bad habit not only for teachers in a school but in other organization too. Sometimes a teacher’s performance outweighs the impact of their gossip at work. It is a scale and everybody has got his/her own kind of scale. Teacher’s gossip can have a serious effect on the academic quality of a school and on the personality and career of the teachers themselves. Teachers who are distracted by gossips are not productive teachers. If they are involved in gossiping, their productivity is being negatively affected and reduced productivity can affect their professional career development and empowerment. In addition to this, the gossiping habit in the schools during school hours, can also create a problematic work environment. Teachers who are the subject of gossip may feel they are being unfairly picked on or targeted, which can lead to claims of discrimination.

### **Attitudes and Perceptions of School Principals towards Female Teachers**

A school principal is the primary leader in a school building. A good leader always leads by example. A principal should be positive, enthusiastic, have their hand in day to day activities of the school and listen to what their constituents are saying. An effective leader is available to teachers, staff members, parents, students and community members easily. Principals are also responsible for evaluating their teachers’ performance. An effective school has to have effective teachers and the teacher evaluation process is in place to make sure that the teachers in the school are effective. Evaluations should be fair and well documented pointing out both strengths and weaknesses.

It is obvious that the trend of appointing female teachers in institutional schools is increasing. It is a matter of interest for researchers, especially when it appears in traditional societies that maintain patriarchal anti-feminist attitudes and values. This study was conducted to explore the condition of professional development and empowerment of female teachers in the context of increasing attainment of females in the institutional schools

### **Perception Regarding Capabilities of Female Teachers**

It is obvious that there are physical and psychological differences between a male and a female. Also, there are cultural differences between them. These differences can affect the ways in which the males and females think, communicate and behave. These differences manifest themselves at school or at their workplace. Do these differences play role in performances

of female teachers in schools? The principal respond that: “They are honest and obedient compared to male teachers. Due to their physical structure, they don’t seem active like males. Males are confident, commanding and result oriented so they are given classes in upper grades”.

It can be analyzed that the school authority of the institutional schools prefers women teachers in lower grades. They are not trusted in senior classes because they are not confident and are not result oriented but another principle view is

“In the 21<sup>st</sup> century, female teachers are also equally capable as males. Though they are capable, even then they cannot put/express their ideas, views, knowledge etc. due to different situations. Only very few of them expose their capabilities”.

It means both male and female teachers in his school are equally capable of teaching but female teachers cannot expose their capabilities as the male teachers do. Most of the principals think that, male teachers are more appropriate in decision making level. One of them quotes that male teachers can make decisions on their own, female teachers have to seek permissions with others or they are not capable of deciding themselves. One another principal writes that males are bold, strong hearted, far sighted and their leadership role is praiseworthy. So that he prefers male teachers in decision making levels but suggestions are sought from female teachers too before taking any decision.

Although female teachers are not preferred in decision making level, they are sometimes included in formulating some of the policies of the school, one of the principals writes. He includes some of the female teachers sometimes in formulating policies of his school because female teachers represent the whole female team, which includes more than half of his working staff, they can put their genuine ideas, suggestions, advices and even tell their problems too. In the same context, principal of another school says that he involves some female teachers in policy making process of his school because of the thought of gender equality and if policy is made in their own involvement, they help to achieve the goal and target is kissed in designated time frame.

### **Efforts Made by Schools to Enhance Female Teachers’ Capabilities**

It has been revealed from the research that female teachers and male teachers are equally intelligent and capable. But females are given priority in primary and pre-primary levels only. Only a nominal number of females are teaching in secondary levels of institutional schools. Has the school authority played any role to upgrade them? Why are female teachers given priority only in junior positions? This was also the concern of the study. According to the principal females who don’t hesitate to talk/speak in front of mass, who have willingness to teach, who have taken education as their major subject and those who possess capability

to love and influence students normally apply for employment as a teacher. The principal of another respond that mentally neither intelligent nor very weak it means moderately capable females apply for teaching in his school. After they are appointed in the institutional schools, female teachers are given various types of opportunities in the school. Professional trainings, workshops, seminars, meetings, educational tours etc. are organized time and often and female teachers are given opportunities to involve themselves in these career building and empowering activities.

Having an appropriate training and taking part in workshops enables the female teachers to be in control and manage any situations that arise because they are confident and capable, can analyze and plan what needs to be done. This makes their work effective and increases the capabilities. Training is the process of acquiring specific skills to perform a job better. It helps teachers to become qualified, proficient and innovative in teaching. Usually the institutional schools facilitate the teachers learning through trainings so that their modified behaviours contribute to the attainment of the school's goals and objectives as well as it helps the female teachers to make their professional career stronger. The teachers become as well qualified as possible to show their capabilities and also they become qualified to perform in positions of greater difficulty and responsibility.

Apart from this, female teachers are also given opportunity for leadership development. They are given the posts like Primary Level Incharge, Pre-primary Incharge, Coordinator of extra co-curricular activities, Coordinator of the cultural committee formed in the school which includes both students and teachers, Coordinator of tour and picnic programmes and so on. All the four sample schools have a female teacher in the post of Incharge of Pre-primary Level. Two of the sample schools have a female teacher in the post of Incharge of Primary Level. Similarly, two out of four sample schools have given the responsibility of planning, organizing and conducting the extra co-curricular activities to the female teachers as ECA coordinator. Also, most of the times, the extra activities like picnic programmes and tour/excursion are organized in the coordination and management of female teachers in all the four institutional schools taken in sample. The in charges of the primary and pre-primary levels are provided with the right to accept or discard leaves requested by their subordinates. They are responsible for arranging the daily routine and other teaching aspects. The management of the school seeks suggestions and advices from them time to time.

Among the measures developed and implemented by institutional schools in capacity building and empowering the female teachers, the principal of one another school writes that they are not always kept as silent and passive listener, they are encouraged to speak in front of the assembly of students, new change in teaching process and methods are disseminated to

them through workshops, seminars, orientation programmes and so on. They are not harassed if they by chance make mistake and 'I can do it', 'we can do it' feeling is developed in them. Also they are included/involved in the selection process of the other teachers required for the school. The institutional resources like computer, e-mail/internet, library, vehicles etc are accessible for them easily. He thinks that the female teachers who teach in his school are getting ample opportunities to flourish their career, personality and they have been gaining a remarkable social status and prestige too.

### **Female Teachers' Perception Regarding Their Empowerment**

One of the major objectives of this research study is to explore the role of institutional schools in capacity building of female teachers teaching in those schools. To fulfil this objective, separate set of questionnaires including both close-ended and open-ended questions for the targeted group were prepared, they directly visited, interviewed and asked to write down the answers by taking necessary time. There were altogether twenty questions included in the list of questionnaires. The answers /responses from each respondent were studied thoroughly and analyzed. Altogether sixteen female teachers, four from each sample school, were included in the list of respondents.

### **Empowerment through income**

Women are dominated and they are given less value in the family and society if they are economically weak or if they have no income source of their own. But if they have a regular source of income and contribute some part of their family income, they are also regarded as an important member of the family. Women with such source of income have more freedom and power in the decision making process of their familial matters. Regular source of income is one of the main aspects of human society and as a means to empower women. Although it is not sufficient, the study has proved that the female teachers teaching in institutional schools have a good source of regular income and they contribute to some part of the economy of their family. The marital status of the 16 respondents is shown in the table below.

Marital Status of Respondent Female Teachers

<b>Marital Status</b>	<b>No. of Teachers</b>	<b>Percent</b>
Single	7	43.75
Married	9	56.25
Married without children	1	6.25
Married with one child	5	31.25
Married with two children	2	12.5
Married with three children	1	6.25

*Source: Field Study 2070*

Studying the table above it is clear that there are more number of married women working as a teacher in institutional schools, most of them with child/children. They are contributing to the economic need of their family. Out of 9 married women teachers, the least contribution made to the family income is 3 percent and the highest contribution to it is 73 percent. In average, the contribution to the total family income in a year is 26 percent. It means, one quarter of the total family income of a married female teachers working in institutional schools is supported by them. This helps to empower them. While women's portion of household earning rises, their share of family income can turn to the breadwinner for the family members. This helps them earn better status and prestige not only in their family, but also in the whole society. All the female teachers, married or single, have said that they contribute their income in the family. Although the involvement of women and their salaries have increased over the years, increasing their share of household income, but female teachers still earn just about one lakh rupees in a year that is below nine thousands per month in average. This income may not be sufficient for the improvement of quality of life of them. However, this has obviously helped to reduce the ratio of unemployment of educated women.

Though, the female teachers earn, it is also necessary to know who has the control over their income. In male dominated society, females may not be able to utilize their income by their own decision. To know the fact, a question was listed in the set of questionnaires for female teachers stating who has the control over their income. The answers given by them are presented in the table.

Control Over the Income of Female Teachers

S.No.	Control over the income	No. of teachers	Percent
1	Parents	5	31.25
2	Husbands	1	6.25
3	In-laws	-	0
4	Self	10	62.5

Source: Field Study 2070

The table above signifies that 62.5 percent of the total female teachers taken in the sample have control over their income by themselves. 31.25 percent of them say that their parents have control over their income. All of these teachers are unmarried. Only 6.25 percent married female teachers do not have control over their income. Their husbands take control over their income. Since the majority of female teachers can utilize their income by their own decision, certainly it helps to empower them. If only the married teachers are taken 89 percent of them

have their own control over their income. Their husbands or other in-laws do not possess the income of these teachers. This increases the involvement of women in fulfilment of economic need of a family which ultimately plays significant role in their overall empowerment.

### **Support from school administration for professional career**

After joining the school, it is necessary to provide regular support and encouraging environment for the female teachers to show off their talent and capacity. The school administration should encourage the female teachers to pursue career development opportunities and support their continued professional growth. It is important to allot time for training, workshops, meetings, study tour, seminar, visit to other schools for gaining knowledge and experience. It makes the individual teacher's work lives more satisfying and also it helps ensure the school's continued success. The school administration can motivate the female teachers achieve their best work, which in turn may increase their contributions to the school and help them empower themselves.

Seventy five percent of the total teachers taken in the sample think that they get good support from school administration for increasing their capability. Twenty five percent of the respondents think they do not get opportunities. Out of those who get career development opportunities, sixty six percent of them think that they get opportunities sometimes, not regularly but remaining thirty four percent think that they get such opportunities rarely.

Likewise, fifty percent of the female teachers reaching in the institutional schools taken in sample think that they have been getting capacity building opportunities regularly, rest of fifty percent do not think so. Talking about additional incentives 43.75 percent (7 out of 16) respondents are getting some additional incentives from their school while 56.25 percent do not get such incentives. As far as the involvement of female teachers in decision making process is concerned, 56.25 percent think that they are not involved in decision making process of their school. Most of them think they are not involved because they teach in junior level and the school doesn't give much value to the junior level teachers. Rest of the 43.75 percent female teachers are involved in decision making periods of their school. In their opinion, they are involved in such periods because they are also the part of the same organization who can share the experiences during the work. But, almost all, fourteen out of sixteen (87.5 percent) female teachers are not involved in the policy making process of the school. The school authority doesn't seek any suggestion from them.

Organizational resources like vehicles, computers, printer, photocopier, e-mail/ internet, teaching materials are accessible for their female teachers in the school. However, teachers may access to the resources depending upon their position and skill/knowledge. It is also necessary to have a safe and harassment free working environment for females in order to empower them.



There was a related question in the set of questionnaires and fourteen out of sixteen (87.5 percent) female teachers have reported that they have not ever experienced any kind of sexual harassment or discrimination from male colleagues, seniors or subordinates. As far as the matter of discrimination is concerned, most of them have a similar view that female teachers are paid less than the male teachers. Also, some of them think there is discrimination in the time of promotion. The male teachers are easily promoted to the upper grades but female teachers are hardly promoted. In the same context, one of the female teachers respond that “Female teachers are not given opportunity to teach in secondary level. There is no any female teacher in vital posts.” It is clear that there is discrimination between male and female teachers in providing the senior level classes and senior posts. Only males are given priority to teach in secondary level. The decisions are made in senior level but there is no any representation of female teachers in this level. This fact is not in favour of female empowerment. Females may feel empowered themselves if they are given higher positions and key posts in the school.

One of the teacher respond that “Yes, I think there is gender discrimination in institutional schools because lady teachers are paid lower remuneration.”

Certainly, economic factor is one of the major factors for their personal development and empowerment. According to a female teacher “Yes, there is gender discrimination in my organization in case of work load. Female teachers are thought to complete all the workloads but male teachers easily get consideration and excuses.”

It can be said that the female teachers teaching in institutional schools are not so much satisfied in various aspects of their job. But to the contrary, 81.25 percent (13 out 16) female teachers want to continue their teaching profession in their own school because it is a respectful job and they have gained a better status in the society since they have started to teach. 2 out of 16 (12.5 percent) teachers want to continue the teaching profession but want to change the school and only one teacher out of 16 (6.25 percent) wants to quit the teaching profession because of dissatisfaction with it.

It is very important for the women that they have a voice in policies and decisions that affect them. Promoting women’s participation in decision making and leadership potential is key to their empowerment. From the research study it has been found that the institutional schools have given a lot of opportunities of empowerment of female teachers though their participation in capacity building trainings, decision making process and other activities but their involvement in policy making level is not mentionable. Involving female teachers in the policy making process is a participatory approach and to make female teachers to feel ownership of the school but they should initiate to take responsibility. This creates empowerment and gender balance policy. Administrations of most of the schools studied during the survey have been found encouraging to female teachers for their capacity building and empowerment.



## **Conclusions**

The field study, observation and the interviews taken with the respondents show that there is favourable gender environment for the female teachers in the institutional schools. Almost all the female respondent teachers have claimed that they have never experienced any kind of sexual harassment in their job from male colleagues, seniors or subordinates in the schools. However some of them have felt gender discrimination in the case of salary, upgrading process, involvement in decision and policy making process etc. Most of the male teachers working together with the female teachers are helpful and behave positively with them. Most of them think males and females are equally talented and capable. But, they don't like the 'work place gossiping' habit of females. Similarly almost all respondent students like to be taught by female teachers in the classroom. This type of positive environment helps in empowerment of female teachers.

From all the facts found during the research, it can be revealed that teaching in institutional schools is now becoming popular among the educated women and with the passage of time it is becoming even more prominent. This profession has so many things to offer to a woman like satisfaction, money, respect, protection, no travel and maximum opportunities to learn new and modern things. Teaching is better than other jobs for females because of many other reasons. Students perceive female teachers as soft and kind in nature as compared to male teachers. Thus they feel free to talk to female teachers. Teaching is suitable for them to cope with the other family commitments and engagements. Social prestige associated with teaching is what makes this a best profession for females. Institutional schools of Pokhara are providing such opportunities and helping them in their personal development and empowerment.

## **References**

- Acharya, M.(1997), Gender Equality and Empowerment of Women, A status Report submitted to UNFPA: Kathmandu
- Acharya, M. and Lynn, B.(1983). Women and the Subsistence Sector: Economic Participation and Household Decision Making in Nepal. Working Paper Number 526. Washington: World Bank.
- Bista, M.B.(2006). Status of Female Teachers in Nepal, UNESCO, Kathmandu office. Central Bureau of Statistics, Statistical Year Book of Nepal (2011): Kathmandu; Authority
- Curtis, T.(2003). Women's Empowerment: A Key to Development, Kathmandu: Hamro Sansar Publication.
- Dhakal, H.P.(2066 B.S.). Samudayik ra Sansthaगत Bidhyalayako Shaikshik ByabasthapankoTulanatmak Adhyayan, Unpublished M.Ed. Thesis, P.N.Campus, Pokhara Regional Library

- Dixon – Mueller, R.(1998). *Female Empowerment and Demographic Process: Moving Beyond Cairo*. Policy and Research Papers No.13: Paris.
- Fitzgerald, A. (2008). *Empowerment and Constructivism* (unpublished paper), St. Lawrence University, Canton, New York.
- Gurung, K.(2008). *Role of NGO in Empowering Women Employees in Pokhara Valley: A Study of NGOs and Employee's Perspective*. Unpublished M.A. Thesis, P.N.Campus, Pokhara Regional Library. <http://m.huffpost.com/us/entry/2734215> as on 16/04/2014
- Khanal, P.(2065 B.S.). *Educational Research Methodology*, Kathmandu: Sunlight Publication
- Lamichhane, U.(2012 Feb). *Collegiality in School Management*, Unpublished M.Ed. Thesis, P.N.Campus, Pokhara Regional Library
- Lamsal, B.S.(2068 B.S.). *Shaikshik Upalabdhima Laingik Prabhav*, Unpublished M.Ed. Thesis, P.N.Campus, Pokhara Regional Library [www.dspace.library.cornell.edu/bitstream/1813/3360/1/west-Thesis%20Final.pdf](http://www.dspace.library.cornell.edu/bitstream/1813/3360/1/west-Thesis%20Final.pdf) as on 01/10/2012
- [www.telegraph.co.uk/educationnews/9849976/teaching-in-primary-schools-still-seen-as-a-woman's-job.html](http://www.telegraph.co.uk/educationnews/9849976/teaching-in-primary-schools-still-seen-as-a-woman's-job.html) as on 05/02/2013
- [www.unesdoc.unesco.org/images/0014/001461/146116e.pdf](http://www.unesdoc.unesco.org/images/0014/001461/146116e.pdf) as on 03/10/2012
- [www.women.writearticles.org/career](http://www.women.writearticles.org/career) as on 14/04/2014.

# Possibility of Overall Utilization of Mysterious Gupteshwor Cave in Chhorepatan, Pokhara and its Management Strategies

*Ramjee Prasad Pokharel\**

## **Abstract**

*Caves are geologically mysterious topography on the earth. Most of the caves are formed in karst regions. The Gupteshwor cave in Chhorepatan, Pokhara is one of the largest cave in Asia. This cave is formed by the erosion due to running water and soluble limestone which forms an outlet from the Phewa lake. The cave roof is generally weak so in order to protect it, it should be left as it is but presently heavy mega frameworks are being constructed inanelly just over the cave. The septic tanks of houses constructed above the cave as well as entering of water from the soak pit to the cave causes the melting of lime not only in rainy season but also in the winter season. Therefore, this study suggested that minimum 25 meters of area around the roof of the cave should be left vacant and protected by providing pavement and gardening. The management of the cave and its protection for adding popularity of Pokhara contemporary tourism destination and rise religious faith of goddess Shiva.*

*Key words: Gupteshwor cave, mysterious, limestone, management, utilization. strategies.*

## **Background**

Topographical diversity is found on the earth based on location. The major topographical structures are mountains, plateaus and plains. Valleys, tars, notches, gorges, passes, etc are third level structures formed from the above mentioned structures whereas the caves formed from minor structures are special creation of nature . The structural topography of the caves created in the plains specially in the origins of some of the mountainous hills around Pokhara valley made excellent and mysterious structures by the deposition of materials from the rivers such as Seti and its tributaries (Fushre, Bijaypur, Kali and Harpan) in various eras of geological history. It is believed that Pokhara was created around 600 to 1100 years ago (Yemanaka et al, 1982). It is found that the monstrous, beautiful and mysterious caves were formed in northern region (Batulechaur) and southern region (Chhorepatan) by deposition of the lakes in the past. Gupteshwor cave is a natural land form naturally monstrous, which is highly popular in religious perspectives as well as it is able to create curiosity in humans. Lying on the base of Annapurna mountain range, surrounded by greenery, graced by ponds and lakes as well as a place that fascinates everyone, the Chhorepatan cave of Pokhara is highly mysterious due to its topographical structure and it is getting popularity in the form of a center of religious belief day by day.

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## **Topographical justification on the study of the cave**

In various parts of the world, the melting of lime along with water (with carbon dioxide) has created many underground structures of various shapes. But in Pokhara valley, the deposition of conglomerate (sand, stones, pebbles, mud) as well as the geographical structure having glaciofluvial deposition in river (Seti) (in different eras of geographical history) is quite unique. The cave is 2959 meters long with six entries sites from different directions (Corbon et al., 1989). It was measure the discovered 'Atlas of the great cave of the world'. The presence of caves around the Pokhara valley makes the topography of Pokhara even more attractive and mysterious. On the one hand, these caves reflect the geographical topography in the past and on the other hand, it shows the necessity of timely and sustainable utility of these caves and its roof. This fundamental also helps to uplift the popularity of Chhorepatan area that is not approached till date. Similarly, for Pokhara, it shows the possibility of geological disasters that may take place due to use of the cave area for settlement purposes as well as the measures to minimize the losses that may rise due to unplanned and rapid urbanization. This study, the basis for public approach of this place and its existing using pattern and sustainable use for the future.

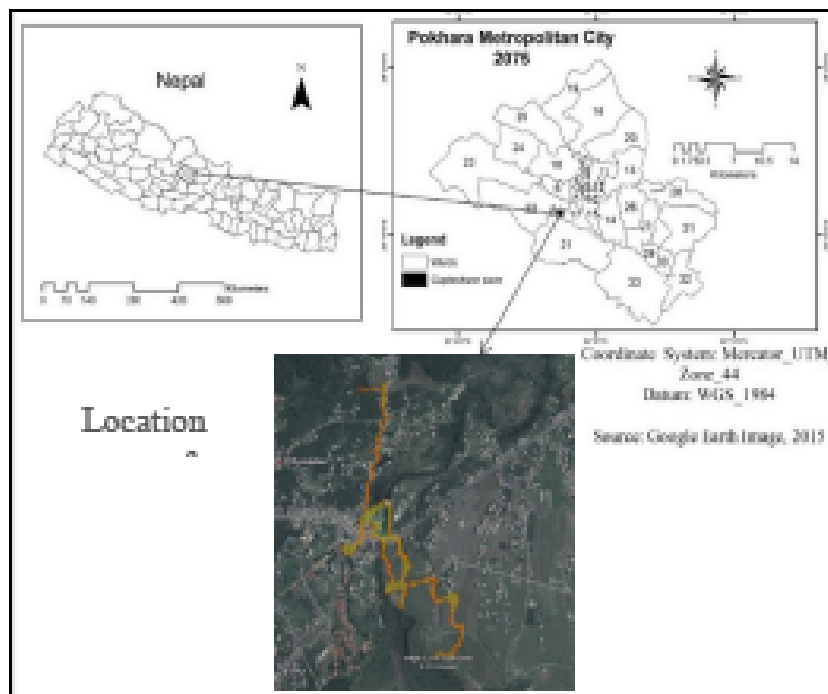


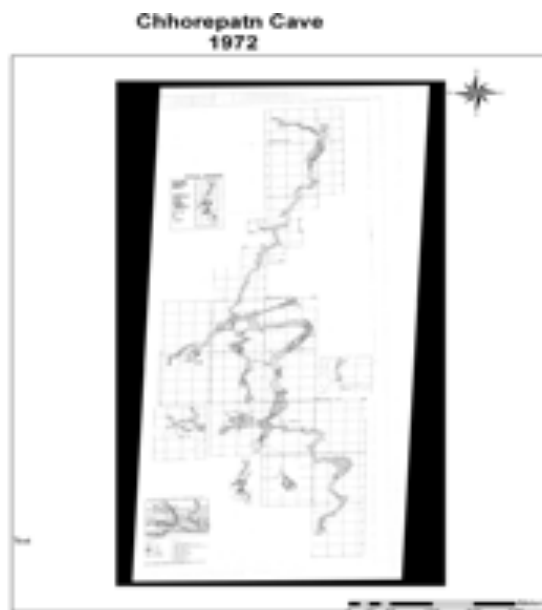
Figure 1: Location Map

## Location of the cave

The region of the cave lies in the Chhorepatan and the surrounding lies in the central part of Nepal in Kaski district. Geographically, Chhorepatan area lies between 28°10'55" to 28°11'40" north latitude and 83°05'50" to 83°05'45" east longitude. Gupteshwor Mahadev cave, highly popular in religious perspectives located at 28°11'40" north latitude and 83°05'20" and Davis falls (Patale Chhango ) located at 28°11'20" north latitude and 83°05'30" also lies in this region (Figure 1). This region extends up to Birauta Fant (Paddy Field) to the east, eastern base of ward no 22 Pumdi Bhumdi and Simaltuda of Pokhara metropolitan city to the west, base of Raniban to the north and Fushre Khola to the south. Minimum height of this region is 730 m from sea level at the junction of Fushre Khola and Fewa Lake and maximum height is 793 m at the bank of SaunePani kholsa. Total length of his cave is 2959 meters (Gowar, 1982). low population due to fear of malaria for five decades but in 2021 BS, Tibetan refugee camp was established towards the western area. This Chorepatan area lies on the old main road leading to Kathmandu, Pokhara, Mustang (Muktinath) through the districts Syangja, Palpa and other western districts. The Chhorepatan region covers famous tourist destination. Gupteshwor Mahadev cave and water flowing from the embankment of Fewa Lake to FushreKhola through the passage of Davis Falls through the cave. Presentaly, this cave is located to the north and south of the Siddhartha Highway.

## Procedure of study

In this study, primary information is taken from field visit as well as secondary information on latitude and longitude of Davis Falls is taken with GPS and Google maps. Information on Entrance of the Gupteshwor cave and the entrances of two caves towards Fushre Khola while the roof of the cave and its extension was taken by GPS survey Topo – sheet released by survey department in 1998 is digitizing in the Arc GIS 10.1 environment. The information on cave was taken from the cave management committee while other data were collected by gathering local resource person. All field information and secondary source of information is analyzed and presented the figures and charts.



## **Geographical topography of Pokhara and the cave**

There is some similarity of Pokhara valley situated on the southern belt of Annapurna mountain range, one of the mountain ranges considered as the crown of Nepal and Chhorepatan cave (Gupteshwor) covering a small area of this valley. Besides lime, there is similar structure matter everywhere. Therefore, following bases are presented about the formation of this place.

- Pokhara is a Tectonic control valley. (Gurung, 1965)
- Pokhara is formed by the deposition of debris materials in the pond brought by the Seti River from the Annapurna mountain range. (Tony Hagen, 1969)
- Pokhara is the deposition of Himalayas and that deposition took place in three phases. (Horman, 1974)
- Pokhara was formed by quaternary deposition and based on the carbon dating of the materials found here, they are formed in seven phases and old lake of Pokhara was buried. (Yamanaka, 1987)
- Similarly, White had studied the distribution of geological structure of Pokhara, rivers and limestone in 1988 while Rimal and Koiralas in 1996 studied the engineering geology and Geological Hazards of this place and found that the present Pokhara was formed between 600 to 1100 years ago and they pointed the fact that the places having limestone were formed during the establishment of Ghachok.
- The materials like mud, stones, conglomerate, boulder, etc found in the topography of this valley are found in layers. (Shrestha, 2005)
- It is stated in the observation reports on the distribution of the vulnerable region that it is caused by the region of the cave. (Pokharel, 2013)
- Similarly, the map prepared about the extension of the cave from side to side was surveyed by Courbon, et al. 1972 also make it clear about the extension of the cave.

In these studies, the information stated about Pokhara and the caves can be obtained. All the materials as well as some part have found karst topography in Pokhara valley. The karst structures, whether exposed or not, pose serious threat to houses, farmlands and public work of any scale e.g., the collapse of a highway, bridge, settlement etc. (Dhital and Giri, 1993).

The availability of limestone is so large that it gets dissolved in the rainwater resulting in the formation of carbon dioxide giving rise to 2,995 m long natural tunnel divided into many sections. The survey map of 1972 also indicates its status (Figure 2). Various structures found in the limestone region are found to be formed in this cave. The cave can be accessed through five entrances and the cave is included as one of the longest caves of Asia (Courbon et al, 1989).

The water of Fewa Lake falls through the Davis Falls and mixes with the Fushre Khola at the tail of the cave. At the entrance the size of the cave is huge where many bats are also found. The researcher in his adult stage (2038 BS) explored the cave and he is thrilled by the memories of the exploration. Inside the cave, somewhere it is plain, Stalactite structures and Stalagmite (Shelving) structures can be seen. Travelling in the plain surface of the cave, some bigger and some smaller circular pits can be observed. Two ponds formed at the central part of the cave makes it more mysterious. While coming out of the cave, stunning view of blue sky was seen below the Davis falls. Thus from the inner surface of the cave to blue sky, open space can be observed. From the Fushre Khola to the Patale Chhango the area of the cave is narrow in some region and wide in some. While coming out of the cave the narrow section of the cave was seen. Inside the cave slippery stones, pits with deep waters are seen which look like risky. However, the inner situation provides thrill in travelling till it reaches the bank of Fushre Khola. Entering the cave is only possible in the winter season when the water from the Fewa lake is stop.

After the installation of the Gupteshwor Mahadev statue 2051/9/01 BS, the cave was established as the center of religious belief for Hindus. After this, more than 500 visitors tour the place daily. The length of the cave, the facility of observing from all of the entrances of the cave is necessary. Due to large size of the cave and its attraction, by developing it as a site of adventure tourism, more tourists can be attracted in this region. We can't be sure that the condition seen in the older caves having limestone due to geographical imbalance cannot take place in the Chhorepatan cave and its roof. The age of the cave cannot be lengthened by construction of the mega and heavy structures just above the cave. Similarly, the management of drainage of water in this regions where maximum rainfall takes place, the septic tanks of houses constructed above the cave as well as entering of water from the soak pit to the cave causes the melting of lime not only in rainy season but also in the winter season. Also in the Gupteshwor Mahadev Temple area it is found that this scenario has broken the hearts of the religious believers. Upper area of the spot from where water of the Davis Falls is used as a dumping site of the city has caused huge problems in its beauty and attraction.

The houses constructed above the cave area and risky zones have on one hand highlighted the value of the land of Pokhara and on the other hand the possibility of risk is maximized. Similarly, the Siddhartha highway constructed by the government between the Davis Falls and the Gupteshwor cave and above the cave and the vibrations created by the heavy vehicles running there has put the surrounding residential area and the cave in huge risk. Around 40 years before there were no settlement only use for agriculture (Figure 3) but now so many physical structure have developed (Figure 4)



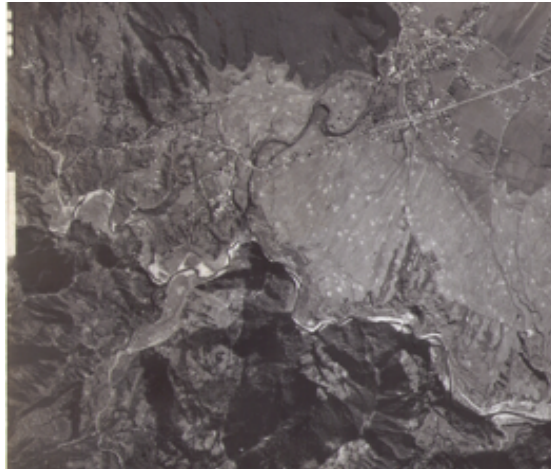


Figure 3- Settlement pattern, 1989 (Aerial photo).

### **Basis for making the cave a blessing of nature**

This cave is different from other caves of Pokhara namely Mahendra Cave and Bat (Chamere) cave. In most of the caves of the world, the entrance and exit are same but in the Chhorepatan cave, there are five entrances and we can return back from every one of them. Recently used entrance is the main entrance of the Gupteshwor cave while the cave can be entered through two entrances towards the bank of Fushre Khola.

Similarly, the cave can be accessed from the entrance near the Raniban towards the north while in the winter season; the cave can be entered by managing adventurous path climbing down the Davis Falls if water outlet is totally closed form the Phewa dam.

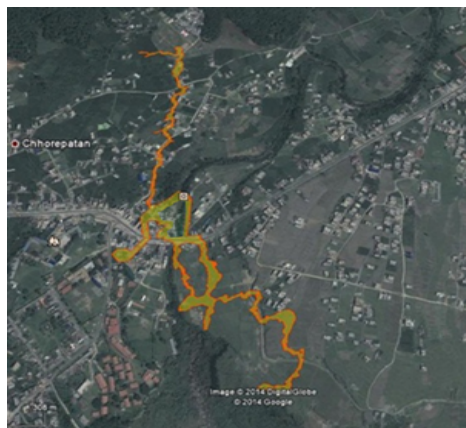


Figure 4- Cave roof projected on the base of British Karst Expedition Team Survey, 1972.



The surface of the cave area is considered highly risky throughout the world since the roof of the cave can collapse anytime. Therefore, around 25-meter border is essential as well as compulsory just above the tunnel (Figure 4). Because there are several parameters like heavy rainfall, earthquake (Nepal is in 11th position in the world earthquake risk zone), vibrant by

vehicle over the road, over load infrastructure development, weak structure of cave roof etc. create the susceptibility of cave collapse. Therefore, to minimize the risk the process of personally deciding land use practice and construction works just above the cave area should be permanently stopped, and pull the private

land by providing significant compensation to landowner. By making a boundary around the cave and paving it with wire and making a path for the pedestrians along the border by paving stones and planting flowers of different species can contribute to its beauty and safe utilization. In the same way, making the narrow areas of the cave walk able and management of supply of artificial oxygen and underground restaurants can provide additional spirit to the adventurers in their travelling. But this can be conducted from Davis Falls to FushreKhola only in the winter after totally closed Phewa Dam. If cable car or any such facilities can be managed in the Davis Falls known as Patale Chhango, the cave only observed from the surface, along with the travel and rock climbing can also be conducted. As Gupteshwor Campus is run by the income of Gupteshwor cave and by income of Davis Falls, the Chhorepatan higher secondary school is run, if such activities are conducted in the other caves, Tourism College can be established from the income to promote the tourism of the area. Almost all of the tourists visiting Pokhara come to observe the Chhorepatan cave, the cave of this area is not a curse, and instead it has become a blessing to earn name and fame. Therefore, the cave that is making the prestige and popularity of this region as well as whole Pokhara (if the settlements are managed to other places) can be taken as valuable property of all. Alongside, the people living around this area can make this place a blessing and not a curse.

### **Existing challenges of the cave**

The upper area of the Chhorepatan cave that seems mysterious and monstrous is full of challenges in the vision of structural constructions by humans. The cave seems attractive and thrilling during observation; it turns towards the east after walking few meters. But just above the cave on the roof, three to four stair eyed concrete buildings are constructed. The construction of this type of heavy framework, vibrations produced in the caves by running of heavy vehicles on the nearby surface, inability to utilize the caves except the Gupteshwor Mahadevsthan cave, inability of proper drainage of rain water falling on the roof of the cave have added the challenges for its conservation. In the same way there are challenges such as

water of Davis Falls running underground through the cave dissolving the lime resulting in the formation of different structures along with difficulty in controlling the erosion of the cave can bring change in its structure and the continuous dissolving of lime leading to the possibility of collapse of the roof. The lack of public awareness programs that may cause loss of life and property, construction of house above the cave, challenges of removing those frameworks, inappropriate dumping and lack of proper wastage management around the cave, etc are some of the challenges of this region.

### **Strategies for management of the cave**

- Making border on the upper surface of the cave by fencing and developing it as a garden and constructing three meters wide footpath.
- Discouraging the construction of mega frameworks around the land within 25 meters' area around the vertical surface of the cave border.
- Underground erosion has been taking place in this region due to passage of water near the Fushre Khola from the canal taken from the embankment of Phewa lake has increased the risk. As well as the land used for agriculture for a long period of time is being used for constructions purpose so to reduce internal erosion, the Phewa canal has to be utilized only for electricity production.
- To conserve the natural lime state of the cave, the water of Phewa lake should be totally utilized for electricity production or it should be utilized taking it towards the southern region of the Pokhara on the opposite bank of the Fushre Khola.
- Implementing the measures to control the leakage of water from the septic tanks of the nearby houses to the cave should be stopped as soon as possible.
- Proper management of drainage to the Fushre Khola to prevent the absorption of rain water from the nearby houses on the ground.
- Diverting the Siddhartha Highway above the cave towards the Raniban in the north and discouraging the running of heavy vehicles on the prevailing roads.
- Construction of cable car reaching the Davis Falls during the winter season.
- Provision of benches around this open space.
- To minimize the risk a rescue team should be kept standby.

### **Conclusion**

Pokhara is a tectonic valley formed by the depositions brought by Seti River and its tributaries in various eras of geological history. The caves having lime found in the common areas of mountains and hills of this region have made the topographical structure of Pokhara excellent

and mysterious. Various geo-structures are being formed by melting of lime by water containing carbon dioxide. The survey map of 1972 has pointed out that the 2959 m. long natural tunnel of the cave divided into branches and sub – branches can be entered through five different entrances. This place having the inner area broader than the mouth of the cave is internally expanding and the inner open space is increasing due to erosion inside the cave by the water flowing from Phewa lake via Davis Falls. Similar condition also takes place in the roof of this cave as it happens in the older caves of the world by melting of lime and other geological activities that's why the construction of mega frameworks just above the cave has caused the natural and religious effects and it has negative impression on the religious believers of Gupteshwor Mahadev area. Determining minimum 25 meters' border above the roof of the cave to minimize the risks that may arise due to collapsing in the future so deep study as per Figure no.2 is highly essential. Blocking the water taken from the cannels, implementing alternative idea to stop the water of Phewa lake to Davis Falls, stopping the leakage of water entering the cave from the septic tanks of the houses constructed above the roof and the surrounding area, disposing the rainwater to Fushre Khola by proper management of drainage, constructing the sector of Siddhartha Highway towards the Raniban in the north, etc should be done and management of park above the cave along with ticketing entry to prevent the risks that may take place due to collapsing of the roof to some extent and transform of the open space of the mysterious cave area. Sustainable use of this cave according to these suggestions should be applied by stakeholders. Then, Chhorepatan cave can be made contemporary tourism destination so that it can contribute to additional popularity of Pokhara.

## Reference

- Courbon, P., Claude, C. Pater, B and Karon, L. (1989). Atlas of the Great Caves of the world, USA: Cave Books
- Dhital, M. R., Giri, S. (1993). Engineering-Geological Investigations at the Collapsed Seti Bridge Site, Pokhara. Bull. Dep. Geology, Tribhuvan University. 3 (1): 119–141.
- Google image (2014). Landsat/Copernicus, USA.
- Gurung, Harka (1970). Geomorphology of Pokhara Valley. Himalayan Review .(II-III). <http://www.thefreedictionary.com/cave>
- Hagen T. (1980). The Kingdom in the Himalaya, Himal Books.
- Hormann :1974). Die Terrassen am Seti Khola, Ein Beitrag zur quaternären Morphogenese in Zentral Nepal, Band 3, pp 161- 176.
- Koirala, A. (1998), Engineering and Environmental Map of Pokhara Valley. Department of Mines and Geology, Kathmandu.

- Mifflin, Houghton (2002). Science Dictionary. The American Heritage.
- Pokharel, R. P. (2013). Vulnerable land in Pokhara city and its Use Potentiality, The Himalayan Geographers, Department of Geography, Prithvi Narayan Campus, Tribhuvan University, Nepal. (8): 45-52
- Shrestha, B. (2061). Pokharako Bhaugoloik Samrachhana ra Bikas, Golden Jubli Smarika , Pokhara Chamber of Commerce, Pokhara.
- Yamanaka, H. (1987). Radiocarbon ages of Upper Quaternary Deposition of Central Nepal and their geomorphological significance. Science Reports of Tohoku University, Japan, 32 (1): 46-60
- Yamanaka, H; Yoshid, M and Arita K. (1982) Terrace Landform and Quaternary Deposit, Around Pokhara Valley, Central Nepal. Jour. Nepal Geological Society. (2) spec. issue: 113-142.

# Prospects of Tourism development in Pokhara

*Rebati Raman Ghimire\**

## ABSTRACT

*Tourism can be defined as a set of activities engaged in by person temporarily away from their usual environment. It has great potentiality to both developed and developing nations in terms of foreign exchange earnings, income and employment generation, development activities such as infrastructure development, human resource development etc. Hence, the extensive study is desired in order to identify the prospects of tourism development in Pokhara valley. Pokhara occupies the overall pretty heritage of nature, which is the clue of prime attraction for tourist from all over the world. The natural heritages of Pokhara are Mount Machhapurchhre and Annapurna, Fewa Lake Begnas and Rupa Lake, Seti River George, Mahendra Cave, Devi's fall etc. like natural heritage; Pokhara is also rich in cultural heritages.. The population of Pokhara is made up of numerous ethnic and cast groups. Such as Gurung (Tamu), Bramin and Chhetry, Magar, Newars, Thakali, etc. mostly Hindu people and some other religious people celebrate Bada Dashain, Teej, Janaipurnima, Tihar, Holi, Shiva Ratri, Chaite Dashain, etc. In this context, there is great possibility of tourism development in Pokhara valley.*

**Keyword:** *Toursim, development, economy, natural heritage, infrainstructure.*

## Introduction

The word tourism is derived from the French word 'tourisme' which was originated in the eighteenth century. Tourism is defined in different ways by various authors and related organizations but there is no universally accepted definition of tourism. UNWTO has defined tourism as a "set of activities engaged in by person temporarily away from their usual environment, for a period of not more than one year and for broad range of leisure, business, religions, health and personal reasons excluding the pursuit of remuneration from within the place visited or long term change of residence". The first definition of Tourism was given by the Austrian economist Hermann Van Schullard in 1910. According to him tourism is "the sum total of operations, mainly of economic nature, which directly relate to the entry, stay and movement of foreigners inside and outside a certain country, city or region" (Satyal, Y.R. 1999, P.6). The inquisitiveness of human psychology is the basic foundation of tourism. During the early human history, men may have traveled under compulsion primarily to satisfy their biological needs such as food, shelter and security. "Historical records reveal that people used to travel

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for reasons other than compulsion. The motives for traveling have changed. People started to travel for trade, conquest, pilgrimage, curiosity, knowledge and pleasure” (Shrestha, 1999, P. 2).

Tourism is widely recognized as one of the biggest and fastest growing industries in the world. It has great potentiality to both developed and developing nations in terms of foreign exchange earnings, income and employment generation, development activities such as infrastructure development, human resource development, etc. Tourism creates friendship and expands understanding among the nations. “Tourism has been identified as an important source of foreign exchange earnings, as an industry creating employment opportunities and generating economic growth of the country” (Shrestha, 1978, P.74 Realizing the potential of the tourism, the first National Tourism Master Plan was formulated in 1972, which happened eleven years after the set up of the Department of Tourism (DOT). Since then, the tourism industry has been recognized as one of the main sectors for foreign exchange earnings and employment generation and national income and a number of other positive variables as desired (DOT, 1972).

Nepal is a heavenly beautiful small Himalayan country. It is known as a country of Mount Everest (8,848m) and birth place of Lord Gautam Buddha. It is one of the richest countries in the world in term of bio-diversity, unique geographical position and altitudinal variation. The elevation of the country ranges from 60m above sea level to the highest point on earth Mt. Everest at 8848m, all within a distance of 150 km. resulting into climatic condition from sub-tropical to arctic. So, all kind of tourist can choose Nepal as their destination for fulfilling their kind of wishes or their own desire.

Pokhara is one of the most charming and famous tourism spot of our country. It is situated 200 km. west from Katmandu. Pokhara is heavenly beautiful because of its natural beauty such as snowy and attractive Himalayan peaks (Annapurna range), green hills, a large number of beautiful lakes, caves, rivers, Seti-gorge and so on. This unique destination of Pokhara is really blessed by Gods. “Pokhara is certainly one of the most extraordinary and most beautiful place in the whole world. The natural beauty of Pokhara can be observed through sunrise view from Sarangkot, paragliding, hiking around Pokhara valley and its surrounding villages etc. The main attraction of Pokhara is Fewa Lake, Begnas Lake, beautiful Annapurna range with holy mountain Machhapuchhre and many more. In this context, there is great possibility of tourism development in Pokhara valley.

## **Results and Discussion**

### **Tourism in Nepal**

Tourism is one of the largest industries in Nepal and one of the largest sources of foreign exchange and revenue. Possessing 8 of the 10 highest mountains in the world (DOT, 1991 p: 5)

Nepal is a hotspot destination for mountaineers, rock climbers and people seeking adventures. The [Hindu](#) and [Buddhist](#) Heritage of Nepal, and its cold weather are also strong attractions. Nepal is a unique country inhabited by multi-lingual, multi-cultural and multi-ethnic people. Nepal's beautiful high landscapes, lakes, green valleys, waterfalls, streams and hill sides scattered in the form of an endless series of terraces have been the source of great attraction and admiration. As a result, Nepal is one of the most preferred tourist destinations in the world. The total number of tourist was 22331 in 1961. In 2016 it was reached 753002 and it was reached 940218 in 2017. Year 2017 seems remarkable improvement in tourist arrivals. Tourist arrivals increased by 25 percent compared to 2016 (MoCTCA, 2017).

### **History of Tourism in Pokhara**

Initially, Pokhara was explored as a transit point for mountaineers around 1950 and 1960. It was explored by a few thousand tourists in 1962 the first historic ascend of Mt. Annapurna I (8091 m.) on 3 June, 1950 by a French national Maurice Herzog and a team of mountaineers was the historic pioneer step in exposing Pokhara as a mountainous tourist destination in the world. Pokhara has also remained a favorite destination for western hippies during 1960s and 70s. These hippies, in other words are the adventure seekers, who were the first explorers and to some extent risk takers to visit around the new places of Annapurna region. Their contribution is still remembered in the sense that they popularized those places through photography. The professional tourism development in Pokhara was started at the end of the 1970. (PTC, 2015)

Historically, Pokhara in the 18th and 20<sup>th</sup> century was a trade route between the India and China. The Newar people from Bhaktapur and Bandipur moved to Pokhara for the trading in the 18th century and established businesses in the old town of Pokhara. The establishment of the British Recruitment Camp in the 20th century further enhanced the accumulation of the Gurung and Magar community. (Shakya, 2008).

The establishment of tourism information centre in 1961 and the formulation of the sketch of the physical development plan became milestones in course of the development of tourism in Pokhara. Completion of the Siddhartha Highway in 1968 had connected Pokhara with outer world and as a consequence flows of tourists started to increase gradually in Pokhara. Nepal's first and the only tourism master plan 1972, which had mentioned the importance of tourism, highlighted about the traditional designs, materials and height limits of buildings in Pokhara and recommended about its strategic position with the regional concept. Tourism is looked as a potential sector for the socio-economic development of Pokhara from the very beginning. Pacific Asia Travel Association (PATA) Development Authority was one of the pioneer international organizations, which had recommended developing Pokhara as the first and foremost Himalayan adventure destination. In 1988, it emphasized for the development



of Fewa Lake side area. The PATA's intervention is also concerned for protecting the natural setting and conservation of old architect and heritage of building in Pokhara. Such significance are reflected in its technical report entitled "Pokhara Historic Resources Study and Proposal for a Conservation District Pokhara" produced in 1990. In 1993, Asia Development Bank was involved in building some infrastructure related development work. The past of Pokhara is also associated with some renowned personalities who are true guides for the identification and exposition of exotic natural and cultural beauties of Pokhara and gradually positioning it as a favorable tourist destination.

### **Natural Heritage of Pokhara**

Pokhara occupies the overall pretty heritage of nature, which is the clue of prime attraction for tourist from all over the world. The natural heritage of Pokhara with their historical appraisal is highlighted in following paragraphs.

**(a) Mount Machhapurchhre and Annapurna:-** One can view the mount Annapurna and Machhapurchhre (Fishtail) mountain to the North West part from different part of Pokhara valley. Annapurna Himalaya range stretches west east and it divided into Annapurna I<sup>st</sup> 8091m., II<sup>nd</sup> 7937m., III<sup>rd</sup> 7575m., iv<sup>th</sup> 7535m. Machhapurchhre (Fishtail Mountain) is the middle of the range with the elevation 6998m from sea level (Udas, 2013). Machhapurchhre is the glorious natural heritage of Pokhara valley.

**(b) Fewa Lake:** - Fewa is the biggest lake in Pokhara the picturesque image of Machhapurchhre and Annapurna range can be seen reflected in the Fewa lake, which is very unique and attractive. The surface area of Fewa lake is about 4.43 k.m., the maximum depth is 12.3 m. and average depth is 11.71 m. (PTC, 2015). There is temple in the middle of the lake, called Barahi temple. In the southern part of the lake, there is a green forest, which is called Raniban. Boats are available in the bank of the lake to serve its visitors.

**(c) Begnas and Rupa Lake:** - Begnas lake is the second biggest lake in Pokhara valley. It is about 25 k.m. east from the Fewa lake. It is almost round in shape. Its area is 3.73sq. k.m., boats are available in the bank of the lake. There is a hillock called Sundari Danda situated south to north east between the two lakes. On the northern side of the ridge, there is Bagnas lake and on the southern side there is Rupa lake. Its total area is 1.15 k.m. (PTO 2066).

**(d) Seti River George:** Seti river is elusively strange. Somewhere its flow through the unseen channels, somewhere open and some where creating very deep georges. There are many deep georges made by the Seti Rivers.

**(e) Mahendra Cave:** This place is located in the north part of Pokhara valley that can be seen the different natural creation inside the cave. Apart from Mahendra cave, there are many



small caves in several places of Pokhara valley. Such as Guptesware, Chamere cave etc. these are generally found in lime stone region. Inside the cave one can find the different shape of limestone, it gives the strange and exciting feeling while watching on it.

**(f) Devi's fall:** It is very near about 2 k.m. away from the Fewa lake. It is the over flowed or excess water of Fewa lake is drain out through this whole and water runs underground to a distance of about one k.m. away from Chorepatan. Eventually, it mingles with small river called Phusrekhola downward the side. Its local name is Patale Chhago. It is also called Devi's fall (PTC 2015).

**(g) Sarangkot:** Sarangkot is a very interesting and beautiful tourism spot. It is very windy place, which provides cool and exciting experience. From Sarangkot, one can watch the panoramic view of Machhapuchhre Annapurna, Dhaulagiri and Ganesh Himal along with other tourism spot. Sarangkot is also famous for Paragliding center.

### **Cultural Heritage of Pokhara**

As like natural heritage, Pokhara is also rich in cultural heritages. These heritages are added attractions over natural heritage and can offer memorable experience for tourist in Pokhara. There are religious sites as well as ethnic and ethnic groups based cultural heritage in Pokhara.

**(a) Talbarahi Temple:** - It is located on the tiny island in the middle of the Fewa lake. As a cultural heritage, Talbarahi is very auspicious and important shrine for Hindus. It is unique for tourists because many people sacrificed animals and birds in the shrine of goddess. They believe that if they sacrifice the animal and worship there, deity will fulfill their wishes.

**(b) World Peace Stupa:** - Stupa is situated on the plane land of Pumdibhumdi hill, which is just above the southern side of Fewa Lake. Its height is 1100m. from the sea level. The Peace Stupa having 115m. height and 344ft. circumference (PTO 2066) This Stupa is painted white to symbolize peace and tranquility. The existence of this symbolic place on this beautiful place of Pokhara spreads fragrance of perpetual peace pronounced by Gautam Buddha.

**(c) Gupteswar Mahadev:-** Guptesware Mahadev shrine lies just below underneath the Patalee Chhango in Chorepatan. Actually, it is a huge round shaped cave made of enormous blocks of rocks only. The visitors can see the awe-inspiring Devis Fall falling down in to the cave with a orating sound. While going into the cave, one can found natural Shivalinga and Mahadev Shiva's statue in the cave. So, it is popular in the name of Gupteswar Mahadev.

**(d) Bindyabasini Temple:** - Bindyabasini is the most popular temple in Pokhara valley. It is situated on a flat ground of about twenty five hundred, forty three square meter areas on the top of the mountain shaped mound. This temple looks like the Shikhar style architecture,

which is traditionally and locally popular in Pokhara (PTO 2066). Bindyabasini temple goddess has eight arms holding different weapon in each hand. She is regarded as the Hindu goddess Bhagawati.

**(e) Bhadrakali Temple:** - This temple is situated on the top of the small hillock. The temple is constructed at the height of 250ft (PTO 2066). Bhadrakali is also the goddess Bhagawati. So people sacrifice the animals and birds to please the goddess Bhagawati and expect that the goddess will fulfill their wish. There is Ganesh temple nearby Bhadrakali temple. Many people come to their place for wedding ceremony and view the Pokhara valley.

**(f) Karmadubgyu Chokhorling Monastery (Buddha Stupa):** It is situated in the Jayakot Danda. Visitors can drive to the monastery one can walk from the bottom of hillock. The monastery was started to construct from 1954 and completed in 1961 A.D (Pokhara Tourism Mirror 2015). The walls of the monastery were painted with Buddhist symbols in Tibetan art. A huge status of Buddha is meditating posture flanked by Guru Rimpoche and Karmapa really on awesome sight.

### **Ethnic Communities Based Cultural Heritage**

At first, Pokhara was inhabited by Mangol aborigines like Gurung, Magar Thakali etc. who spoke Tibet Barman language. They settled in the hills like Kaskikot, Sarangkot, etc. They had their own culture, tradition and language (Udas, 2013). Newar from Kathamandu came to Pokhara to trade and settled down especially in the plain area then Newar culture and tradition mingled with Hindus and spread in Pokhara. The population of Pokhara is made up of numerous ethnic and cast groups. Such as Gurung (Tamu), Bramin and Chhetry, Magar, Newars, Thakali, etc.

### **Culture, Festivals and Ceremonies**

A number of varied ethnic communities have their own various culture, which they celebrate at certain time with different ways. Almost all the people celebrate Nepali new year, mother's day, father's day, Maghe Sanskranti etc. mostly Hindu people and some other religious people celebrate Bada Dashain, Teej, Janaipurnima, Tihar, Holi, Shiva Ratri, Chaite Dashain, etc.

**Museums:-** There are all together five museums in Pokhara. Two of them are the collections of natural and cultural heritages, whereas rests there are the collection of cultural heritage of different ethnic groups of Pokhara. The following subtopics provide the details description of these museums.

**(a) Annapuran Natural History Museum:** - This museum is the first established museum in Prithivi Narayan Campus Complex. It was established by an American lady, Peace Crop

volunteer, Dorothy Mierow in 1956 A.D. Mierow had stayed long time in Pokhara and helped this museum to grow continuously. She had an interest to promote wildlife, insects, plants, birds and butterflies found in Nepal. Collection of almost all of Nepal's 640 species of butterflies is demonstrated in the Nepal collection (Udas 2013).

**(b) Regional Museum:** - This museum is the second oldest museum in Pokhara valley. It lies in Naya Bazar in the central part of Pokhara valley. It was inaugurated on 15<sup>th</sup> February, 1985 by late King Birendra. Now, it is looked after by Nepal government. Pokhara regional museum instituted to represent the western region. Thus, the museum is thought to be the store house of all artifacts related to art, architecture, culture, history and archaeology, which carry on academic value (PTC, 2015). The display object are traditional metallic and wooden utensils and dishes, gold, silver, and brass jewelries, agriculture and fishery tools, clothes, traditional hunting weapons, etc.

**(c) International Mountain Museum:** - The international Mountain Museum is the largest and most sophisticated modern types of museum. It was initiated in 1996 A.D. by Nepal mountaineering association. The total area of the international mountain museum is six hectors (PTC, 2015). Actually, the idea to establish museum in Pokhara was the inspiration of all those mountains of Pokhara that attract the people of the world. It provides information about mountaineering as well as the cultures, environment, history, geography and ecology of the Himalayas..

**(d) Gorkha Memorial Museum:** - Gorkha is popular for the bravery, courage and undying sprit of war and dedication to their duty during the Anglo Nepalese war. Later, British government recruiting Nepalese youth with the name of Gorkha and send them to fight in the First and Second World War. Gorkha memorial trust decided to establish Gorka memorial museum. So, the working committee decided to manage the museums in 1996 A.D. in Lainchaur under the chairmanship of captain. Now the Gorkha Memorial Museum located on the premises of the British Camp. (PTC 2015). The main aim the museum is to maintain the everlasting history and memories of Gorkha with their bravery medals such as Victoria Cross. Thirteen Gurkhas have received this glorious medal.

## Conclusion

The nature of Pokhara has exposed the unique panoramic view of snow capped mountain lakes, gorges of Seti River, green hills and waterfalls, which make the visitors quite fascinated similarly from historical religious and cultural point of view. Pokhara occupies the overall pretty heritage of nature, which is the clue of prime attraction for tourist from all over the world. One can view the mount Annapurna and fishtail mountain to the North West part from

different sport of Pokhara Valley. Machhapurchhre is the glorious natural heritage of Pokhara valley. Fewa is the biggest lake in Pokhara,. Begnas Lake is the second biggest lake in Pokhara valley.. Mahendra Cave is the another attraction of Pokhara. We can see the different natural creation inside the cave. Apart from Mahendra cave, there are many small caves in several places of Pokhara valley. Such as Guptesware, Chamere cave etc. Sarangkot is also famous for Paragliding center. A number of varied ethnic communities have their own various, culture, which they celebrate at certain time with differential ways. Almost all the people are celebrates Nepali new year, mother's day, father's day, Maghe Sanskranti etc. Mostly Hindu people and some other religious people celebrates Bada Dashain, Teej, Janaipunima, Tihar, Holi, Shiva Ratri, Chaite Dashain etc. Out of total tourists, the visitor's number to Pokhara is also growing rapidly.

## References

- Dhital, J. N. (2009). *Tourism in Nepal: problem and prospective of female employment*. A Ph.D. Dissertation, Submitted to Tribhuvan University, Kirtipur, Kathmandu.
- Ghimire, R. R. (2016). *Women employment in tourism*. An unpublished M.Phil.thesis submit to central department of economics,T.U.
- MoCTCA (2017). *Nepal tourism statistics*, Kathmandu: Ministry of Tourism and Civil Aviation.
- - - . (2014). *Tourism employment survey*, Kathmandu: Ministry of Tourism and Civil Aviation.
- PTC. (2015). *Pokhara tourism mirror: A complete guide book*. Vol. 31, Issue, 3, Nov. 2015.
- PTO. (2066). *Major tourism attraction of Gandaki and Dhawalagiri zone*. Pokhara: Pokhara Tourism Office.
- Saty, Y. R. (1999). *Nepal: An exotic tourist destination*. Yamuna Vihar, Delhi: Adroit Publishers.
- Shakya, K. (2008). *Tourism, yesterday, today and tomorrow* in Upadhyay R.P editor. Reading in Rural Tourism. Kathmandu: Sunlight Publication.
- Sharma, L. K. (2011). *An analysis of employment and investment in tourism industry*. An unpublished M.Phil.thesis submitted to central department of economics, T.U.
- Shrestha, H. P. (1999). *Tourism marketing in Nepal*. An unpublished Ph.D. Dissertation, Submitted in Tribhuvan University, Kathmandu.
- Upadhyay, R. (2008), A case study of rural tourism in Sirubari, Bandipur and Ghalegaon. *Readings in Rural Tourism*, Kathmandu: Sun Light Publication.
- Udas, G. M (2013). Historical review of national and cultural heritage of paradise Pokhara. *Tourism in Pokhara*. Pokhara: Pokhara Tourism Council.
- UNWTO (1995). *Technical manual: Collection of tourism expenditure statistics*. Madrid: United Nations World Tourism Organization.

# What is Freedom for Caliban in Shakespeare's *The Tempest*

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## Abstract

*Shakespearean play The Tempest ends with Caliban once again in command of his island, but the question what he does with his new freedom is beyond the metaphor. Caliban's freedom is an ambiguous notion which not only leaves the play ambivalently open, but also points at a direction that in fact strengthens colonialist reading. The question, in this article, has been addressed through the conceptual framework of Stephan Greenblatt's account and analysis of Thomas Harriot's report in his essay "Invisible Bullet." It is concluded that, first, Prospero and Miranda consider Caliban to be their simplified version. So, they set themselves to educate this uncivilized, simple savage and convert him to a human being. Second, they take Caliban into their fold because they believe that he can be taught their language, culture and religion so as to control him. The third point is that Prospero keeps Caliban in his own cell for he needs Caliban to serve and feed them.*

**Keywords:** *Caliban, civilization, colonial, subversion, takeover*

Most post revisionist scholars, in their critique of *The Tempest*, attempt to free Caliban from colonial discourse. Interesting to note is Alden T. and Virginia Mason Vaughan's remark that "the high tide of Caliban's Third World role probably has passed; for *The Tempest*'s applicability has built-in limitations for readers and viewers in the recently liberated nations. The play ends with Caliban once again in command of his island; what he does with his new freedom is beyond the metaphor" (282). With such an effort underway, the final curtain seems to be falling over a very distinguished career of a savage, abhorred slave, mooncalf, more a fish than a human Caliban. His fate as a colonial victim and as the central attraction of the play seems to be coming to a close. I, however, find the utterance problematic and would argue that Caliban's freedom is an ambiguous notion which not only leaves the play ambivalently open, but also points at a direction that in fact strengthens colonialist reading. To begin with I shall employ Stephan Greenblatt's account and analysis of Thomas Harriot's report in his essay "Invisible Bullet" to develop a theoretical base for my entry into the play. I have chosen Greenblatt's text for the simple reason that I have found it useful to the issue of coercive power play that I want to discuss in *The Tempest*. I shall not be arguing that *The Tempest* is specifically set in the New World. My interest here is to present the existence of a subtler manner of colonialist coercive strategy in the text that until now has remained unexplored.

In "Invisible Bullets," Stephen Greenblatt suggests "that understanding the relation between orthodoxy and subversion in Harriot's text will enable us to construct an interpretive model that

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may be used to understand the far more complex problem posed by Shakespeare's history play" (786). Such an interpretative model will work equally well with "The Tempest." Greenblatt points out that Thomas Harriot was Sir Walter Raleigh's man, an Elizabethan mathematician, an expert in cartography, optics, and navigational science, an adherent of atomism, the first Englishman to make a telescope; but significantly for us the author of the first original book about the first English colony in America, "A Brief and True Report of the New Found Land of Virginia" (1588), which apparently links it with *The Tempest*.

Greenblatt equates Harriot with Moses as the "archetypal corrupter" (786). He cites the pagan polemics against Christianity that the "Old Testament religion [...] and by extension the whole Judeo-Christian tradition, originated in a series of clever tricks, fraudulent illusions perpetrated by Moses, who had been trained in Egyptian magic, upon the 'rude and gross' (and hence credulous) Hebrews" (787). Machiavelli, from this argument, deduced that religion's primary function is not salvation but the achievement of civic discipline. It is this idea that Harriot observes and explores on the Indians, and, therefore, it makes him like Moses the archetypal corrupter. Greenblatt goes on to say that Harriot noted that the Indians seeing the mathematical instruments, sea compasses, the loadstone, perspective glass, guns, *books, writing and reading* (my emphasis), spring clocks etc were awed, and they thought that these were the works of gods rather than of men, and that the English were taught by gods. Greenblatt suggests that Harriot was deluded into believing that the savages felt that the English possessed the truth of God and religion, and that the Indians thought that they have to learn such truth from the English.

Although religion was described as a sophisticated confidence trick, Machiavelli himself saw that trick as possible only when applied to a people without civilization, who are not already corrupt. Harriot and the civilized English people had the simple Indians to use this theory upon. Greenblatt continues:

In encountering the Algonquian Indians, Harriot not only thought he was encountering a simplified version of his own culture but also evidently believed that he was encountering his own civilization's past [...]. Only in the forest, with a people ignorant of *Christianity* [my emphasis] and startled by its bearers' technological potency, could we hope to reproduce accurately, with live subjects, the relation imagined between [...] Moses and the Hebrews. (789)

So, religion was used as a means to maintain civic order and discipline, to curb a people, to rule over them.

More than just maintaining civic order and discipline, Greenblatt offers another reason why the English were compelled to use religion for such a purpose. According to him, the English were not able to feed themselves in the New World. He reasons that it was the European



gentlemanly ideal to be waited on by others that prompted such behavior. The New World held out the prospect of such status for all but the poorest cabin boy. Therefore, for the survival of the English colony “Harriot tests and seems to confirm the most radically subversive hypothesis in his culture about origin and function of religion by imposing his religion –with its intense claims to transcendence, unique truth, inescapable coercive force –on others” (Greenblatt 791). Ironically, such a hypothesis, through its working, instead of undermining the very foundation and belief of Christianity only worked to strengthen the position of the same religion.

*The Tempest* encodes a similar set of subtle power play in the action of Prospero over Caliban. Prospero’s arrival and encounter with Caliban replays Harriot’s account of the Englishmen’s encounter with the Algonquian Indians. Prospero’s and Miranda’s initial response on seeing Caliban is that they had encountered a simplified version of their own being, their civilization’s past. Prospero mentions that before Caliban had transgressed, he had treated him “with humane care, and lodged” (1.2.349) him “In [his] own cell” (1.2.350). Miranda too corroborates Prospero’s initial treatment by saying, “[...] I pitied thee, / Took pains to make thee speak, taught thee each hour / One thing or other” (1.2.356-58). So, the missionary project was underway from the very beginning.

Reading the above lines in light of Greenblatt’s account of Harriot, we can infer many layers of meanings. First, Prospero and Miranda consider Caliban to be their simplified version. So, they set themselves to educate this uncivilized, simple savage and convert him to a human being. Second, they take Caliban into their fold because they believe that he can be taught their language, culture and religion so as to control him. The third point is that Prospero keeps Caliban in his own cell for he needs Caliban to serve them, to feed them. If we look back to Caliban’s speech, Caliban like the Algouquian Indians “showed [Prospero] all the qualities o’ th’ isle, / The fresh springs, brine pits, barren place and fertile” (1.2.340-41). As Caliban is treated well initially, he responded in like manner.

Prospero uses his civilization’s advancement to impress Caliban, and he temporarily succeeds too. He introduces Caliban to “Water with berries in’t” (1.2.337), which probably is wine, and to language: “To name the bigger light, and how the less, / That burn by day and night” (1.2.338-39). In addition, he impresses Caliban with his magic that Caliban points comes from the books that Prospero possesses. Caliban is amazed and starts reciprocating when he says “And then I loved thee” (1.2.339). The love here is genuine as he is treated well like a child.

But the missionary effort of Prospero is thwarted when Caliban “seeks” kinship with Prospero by trying to have sex with Miranda. The word to underscore in Prospero’s accusation of Caliban is “seek” (1.2.350) which means, “there was no actual rape” (Seed 210). From a position of servant slave, Caliban sought to raise himself. Prospero does not tolerate such

ingratitude (unwanted sexual advance on his daughter) on Caliban's part for two reasons. First, Prospero and Miranda consider Caliban as uncivilized, as childlike, as the "Other," similar to them but significantly different. Therefore, Prospero's anxiety is about possible miscegenation, which Caliban reminds him in his retort, "Thou dost prevent me; I had peopled else / This isle with Calibans" (1.2.353-54). That the offspring will be Caliban's and not have anything of the mother was the typical fear of the English colonizers. Shakespeare gives voice to the colonizers' fear through Caliban's retort. As noted by Patricia Seed, Caliban's transgression threatens not just Miranda but Prospero himself:

Caliban's claims and desires conform to the theme of the English narratives of colonization of the always potentially violent and therefore treacherous native who offers a fearsome threat to the sexual integrity of white women-and hence implicitly to the English man overseas. The theme of dangerous sexual relations between colonizer and colonized reflects a [...] distinctively English colonial anxiety. (211).

Second, if Caliban is offered equal status then they will miss "to be waited on by others" (Greenblatt, *Bullets* 790), which according to Greenblatt was "the hallmark of power and wealth in the sixteenth century" (*Bullets* 790). At stake was not just their survival but also their lifestyle if they did not maintain the statuesque.

The reliance on the "Other" to wait on them was so strong among the Europeans that they would resort to violence in case they felt their lifestyle being threatened. Greenblatt provides an example in "Invisible Bullets" when he mentions how the French turned to extortion and robbery which led to bloody wars when the Indians got wearied of the arrangement of providing food for the French settlers, day in and day out. Greenblatt also mentions that a similar situation seems to have arisen in the Virginia colony. Caliban by making sexual advances threatened to end the previous convenient arrangement. So, Caliban's act opportunistically becomes a pretext for Prospero to enslave him and seize the island. After Caliban dares to transgress by desiring kinship with Prospero, Prospero and Miranda equate him with the beasts. Earlier they had seen some hope. Prospero had intended to convert him into a more excellent slave, and so gain him spiritual freedom from his bestiality. But Caliban's strong rebellious nature frustrates Prospero's mission.

Caliban's resentment and curses are a natural outcome of the injustice meted out to him. As long as Caliban was useful and dutiful, he was treated well. But when he desires to forge a kinship with Prospero, he is transformed into a slave and tortured overnight. The accusation of Caliban that he is a "vile race," "most brutish" (1.2.360), "poisonous slave got by the devil himself" (1.2.322), "lying slave" (1.2.347) etc does not seem to have been uttered during their initial encounter, or Caliban would not have "loved thee" (1.2.339). Instead a more patronizing



relation of a missionary educating the uncivilized seemed to be in progress then.

What makes the takeover by Prospero more damaging, not just as an imperialistic discourse but also from the point of Elizabethan courtly politics, is the fact that Prospero's usurpation dislodges Caliban's right of inheritance. Like Bolingbroke, Prospero displaces Caliban from being the rightful heir (Willis 284). The enactment of this takeover is on a far off island, perhaps geographically located in the Mediterranean, which, nevertheless, echoes the contemporary European (in general) and English (in particular) encounters with the Indians in the New World. Bolingbroke's justification that he possesses superior virtue and fitness for rule over Richard II cannot apply to Prospero's usurpation of Caliban's island. Incidentally, Prospero's usurpation of Caliban's island also parallels Antonio's usurpation of Prospero's dukedom. If Prospero is the unfortunate victim in the Milanese court, similar is Caliban's case on the island. But the reactions of the other characters (all from the Italian mainland) betray this fact, for Caliban is perpetually the "Other," and the same values do not apply to him.

Interesting to note about Prospero's civilizing mission is that it starts with Caliban's language acquisition. It is a fact that for the explorers of the New World, linguistic conversion was but the first step to proselytize the natives. Greenblatt in his book *Learning to Curse* talks of the role of language for colonizers. He mentions Peter Martyr's writing to Pope Leo X about "the large landes and many regyons whiche shal hereafter receaue owre nations, tounge, and maners: and therwith embrace owre relygion". (16). Peter Martyr has laid out the sequence in which things actually took place. First it was the reception of the Europeans, next their language and manners, and subsequently their religion would logically follow. The discourse makes the process smooth and even desirable on the part of the natives. Greenblatt in the same chapter of *Learning to Curse* quotes Samuel Daniel's poem of 1599 and says that Daniel "does not consider the spread of English a conquest but rather a gift of inestimable value. He hasn't the slightest sense that the natives might be reluctant to abandon their own tongue; for him, the Occident is 'yet unformed,' its nations 'unknowing'" (17). Shakespeare seems to have captured Daniel's (and by extension his nation's) sentiment in *The Tempest*. Caliban's education also reflects a similar assumption on Prospero's part

Though Prospero begins with language in his education of Caliban, but language acquisition also means that it gives "voice unexpectedly to hidden hopes" (Vaughans 166). This doesn't mean that Caliban didn't possess language initially. He must have communicated with Sycorax, his mother. But that Prospero and Miranda consider his language mere "gabble / A thing most brutish" (1.2.360), can be used to draw parallel with the European's first reaction to the Indian languages. Greenblatt in *Learning to Curse* notes, "The view that Indian speech was close to gibberish remained current in intellectual as well as popular circles at least into the seventeenth

century” (19). The gibberish language would not have affected Prospero as much as it does when Caliban uses Prospero’s own language to curse him. So, Caliban appropriates the acquired language as a means of resistance, to voice his opposition.

Caliban transforms the acquired language as a means of resistance in spite of being victimized both physically and culturally. Caliban employs the acquired language to voice his resistance by cursing, which frustrates Prospero. Implicit within his famous outburst, “You taught me [...] language!” (1.2.366-68), is the line “The red plague rid you / For learning me your language!” which hints at Caliban’s reluctance to adopt Prospero and Miranda’s tongue and abandon his. Prospero and Miranda in their zeal to educate do not recognize this fact. For them, like Peter Martyr and Daniel, the native would be only more desirable to learn and speak their language. That Caliban is not shown to “gabble” in the play anymore perhaps means he has lost his tongue.

Though Caliban is aware of Prospero’s power, though he knows Prospero can even control his god, Setebos, yet Prospero’s power fails to convert him. Prospero uses force to cow Caliban down; however, the more he uses it the more he alienates Caliban. Caliban’s resentment of Prospero builds to such an extent that he is willing to forge an alliance with any group that will help him overthrow the tyrant. Set in this mood he meets Trincolo and mistakes him to be Prospero’s spirit. Later he mistakes Stephano to be a god but not before he has gulped down some amount of the “celestial liquor” (2.2.117). Once again we find Caliban being coerced like the Indians by exposing them to the so-called superior European technology. For Prospero it was magic, books, and language; for Stephano it is the “celestial liquor” (2.2.117). What Prospero couldn’t achieve through force, Stephano achieves by intoxicating him with his “celestial liquor.”

Stephano’s “celestial liquor” works wonders on Caliban as he is immediately taken over in a drunken stupor. Besides being deluded because of drunkenness, another reason for Caliban to so easily align with Stephano is the working of his resentment against Prospero. This resentment as noted by Julia Lupton “comes to speech in two [...] articulate forms of discourse: as curse and as counter-narrative” (11). Caliban builds the counter-narrative by saying to Stephano, “As I told thee before, I am subject to a tyrant, / A sorcerer, that by his cunning hath / Cheated me of the island” (3.2.41-43). He produces the counter-narrative so that he can create a new political community against Prospero. Whether drunk because of the wine or with the dream of freedom, Caliban mistakes Stephano’s drunken boldness to be his power, and in return promises him with riches of the island. A term of exchange is drawn between the two in return for the overthrow of the tyrant. With the prospect of freedom playing in his deluded and drunken mind, Caliban bursts out in a freedom song: “No more dams I’ll make [...] high day, freedom!” (2.2.178-85).

Meanwhile, “Ariel [by] mimicking the skeptical voice of Trinculo” (Lupton 12) tries to foil

Caliban's counter-narrative. This results in "inarticulate fist-fight rather than the creation of a new political community around shared narrative and set of values" (Lupton 12). Ariel, the double of Caliban (because a serving slave), interrupts the proceeding and tries to frustrate the building of a bond among the three. He eavesdrops on their plan besides creating confusion. The resultant information Prospero will use first to humiliate the conspirators and also for his advantage in the final scene.

Interestingly, in trying to forge a new political community, Caliban for the first time exposes the finer side of himself. He forgets his resentment for a while in his delusion that he has a new political alliance that can overthrow Prospero. The result is the poetic outpouring from the savage, which he directs to sooth the fear of his newfound companions. The lyrical outburst is symptomatic of Caliban's attachment to the land. He delights in the "sounds, and sweet airs" (3.2.38), and the music of the island. The dream that he registers and longs for reflects his lost freedom, the freedom that has been usurped by Prospero. He says, "[...] in dreaming, / The clouds methought would open and show riches / Ready to drop upon me, that when I waked / I cried to dream again" (3.2.142-45). The language here may be Prospero's, but the feelings and imagination are Caliban's. It is not that Caliban cannot use the acquired language for profitable use. The above lines are example enough of the creative and poetic side of Caliban. Moreover, even by cursing, Caliban most profitably uses this acquired language as a means of resistance to Prospero's rule.

What enables Caliban to resist in spite of Prospero's torture? Why is he not meek and submissive in front of Prospero? Perhaps the knowledge of the music and sound of his island "enable [him] to exceed the limits or constraints of his subjected status" (Fox-Good 261). He may not "gabble" (1.2.359) anymore, but he is still in tune with his land. The "noises" (3.2.38) of the island, the "sounds" (3.2.38) and "sweet airs" (3.2.38) give him "delight and hurt [him] not" (3.2.38). Gathering strength from the songs and music of the island, Caliban "plans to overthrow Prospero, not just politically but linguistically –telling Stephno first to 'possess his books,' the play's metonym not only for Prospero's art and cunning but for language, the word itself" (Fox-Good 261). Caliban reminds Stephano to "First possess [Prospero's] books, for without them / He's but a sot" (3.2.91-92); he urges him to "Burn" the books, which are but the instruments of entrapments.

In spite of the rejuvenated Caliban, Prospero, the supreme manipulator that he is, very deftly employs Ariel's report on Caliban's conspiracy not only to out maneuver the conspirators but for a subtler outcome in the final scene. By then Prospero has successfully manipulated the storm, separated Ferdinand from his father, manipulated Miranda's choice of husband, and influenced Ferdinand's selection of Miranda. But the final stroke of the manipulative genius is revealed

in the concluding scene. Prospero has realized that no amount of violence can guarantee him loyalty from his antagonists. This he learns from his treatment of Caliban as the more torture he inflicts on Caliban, the more he recoils from him. So, even after Prospero has worked his magic to such an extent that all his enemies “Lie at [his] mercy” (4.1.265), he changes his mind. And by Act 5 Scene 1, he lays out his plan: “The rarer action is / In virtue than in vengeance” (5.1.27-28). He had thoughts of vengeance in him but cleverly alters it in the end. By bringing them to the point where he can execute his will on them, he exposes their vulnerability. But by forgiving them all, he makes them forever grateful and humbles them; he manipulates them into acknowledging his Christian humanity.

It is this benevolent Prospero that we encounter in the concluding scene. By then Caliban and the others are persuaded that Prospero can destroy their lives if they displease him. Caliban's wonder at the manipulative genius is exhibited when he says, “How fine my master is!” (5.1.264) in comparison to Stephano. He is also terrified when he says, “He will chastise me” (5.1.265). But instead of punishing Caliban, Prospero exhibits compassion: “The thing of darkness I acknowledge mine” (5.1.278), and the utterance works like magic. His magnanimity becomes the greatest coercive strategy here. Caliban, the rebel, is suddenly as terrified with what Prospero can do as he is awed at his magnanimity and compassion. He says in fear, “I shall be pinched to death” (5.1. 279), and yet at the same time Prospero's compassionate act genuinely forces him to say, “I'll be wise hereafter / And seek for grace” (5.1.298-99). To utter the phrase “seek for grace” means he has succumbed to the Christian theological discourse; “to be wise” means he will reject his earlier gods (Setebos and Stephano).

Forgiveness is necessarily understood as a private affair. But Prospero provides it a public, performative character. Of course, forgiveness too has a public, performative side to it; but such forgiveness is a political act. Prospero strategically positions his performance of forgiveness to subdue all his antagonists. Seeing Prospero in an act of compassionate behavior everyone falls prey to his political craftsmanship. By restoring Ferdinand to Alonso, Prospero wins over the king and also forges a bond of kinship that he had denied Caliban. Also his forgiveness irredeemably reduces Antonio in the eyes of the king. Prospero in one stroke becomes twice closer to Alonso. Prospero forgives his brother who had tried to usurp his dukedom as an act of Christian piety. The same is seen in his treatment of Caliban when he forgives him for sinning with a plot to kill him.

The irony, however, is that the same Christian piety would not prompt Prospero to set Caliban totally free. We understand forgiveness as the surrender of resentment. We expect the transgressor, once forgiven, to be treated in a different way. But the earlier treatment of Caliban continues unabated. Prospero still calls him “as disproportioned in his manners / As in

his shape” (5.1.294-95), and addresses him as “sirrah” (5.1.295) which means Caliban is still a slave to him. He still calls him “this thing of darkness” (5.1.278); he doesn’t even accord him the level of humanity by calling him a person. The only difference in Prospero’s treatment is that he doesn’t kill Caliban for plotting to kill him. Possibly he doesn’t need to, as Caliban is a total convert, a proselytized being. Under the pretext of religion, of Christian piety, the colonial project is only strengthened.

Prospero’s public and performative acknowledgement of Caliban has a more sinister function. Greenblatt in *Marvelous Possessions* talking of Columbus’s taking possession of the newly discovered land says that “Taking possession is principally the performance of a set of linguistic acts: declaring, witnessing, recording. The acts are public and official” (57). By saying, “This thing of darkness I acknowledge mine” (5.1.278) Prospero enacts the ritualistic possession of Caliban, and by extension of the island “on his behalf and on behalf of his descendents” (Greenblatt, *Marvelous* 57). The witnesses are Alonso, the king, and the nobility of Naples and Milan. The whole act is a declaration, which is witnessed and recorded; so, Prospero’s legitimacy over Caliban and the island is fixed forever.

In his proclamation of ownership over Caliban and by extension over the island, no one contradicts Prospero. The textual evidence suggests that Caliban does not contradict because he is both terrified of Prospero’s power and awed by his proclamation, which Caliban (like many other earlier critics/scholars) mistakes for his magnanimity, his act of forgiveness. Consequently, with no one to contradict his proclamation of ownership, Prospero “acts entirely within [...] ‘the scriptural operation’ of his own culture, an operation that leads him not simply to pronounce certain words or alternatively to write them down but rather to perform them orally in the presence of the” (Greenblatt, *Wonder* 58) king and the nobility, and therefore, provide his public linguistic act the legitimacy of an official standing.

Various scholars have provided varied opinions on the conclusion of the play with many debating over the extent of Caliban’s freedom. Julian Lupton says that Prospero’s acknowledgement of Caliban is Prospero’s acceptance of “both commonality with and responsibility for his creature” (19). Deborah Willis talking of the final scene says, “Neither ‘humane education’ nor punishment and enslavement have produced virtue in [Caliban]; rather, his transformation is the product of events largely outside Prospero’s control” (285). Willis calls it “not a full conversion” (285). I feel both the critics are wrong here. Prospero’s acknowledgment is simply a ploy, a show of magnanimity to gain the trust and service of Caliban and also an act to legitimize his claim. Deborah Willis cleverly notes that “neither education nor punishment and enslavement have produced virtue (?) in Caliban,” but to situate Caliban’s transformation on outside events would put a veil upon Prospero’s manipulative act. Caliban’s transformation,

I should argue, is total. The sudden transformation is a little rushed, but complete. Incidentally, Lupton by finding an analogy between Caliban and Adam does a great service, for she proves irrevocably that the attempt of Prospero reflects what Harriot and company had tried over the Algonquian Indians.

How do we know that Caliban is totally transformed? And what has he transformed into? These are relevant questions and need probing into. The answer lies in Caliban's final lines: "I'll be wise hereafter / And seek for grace. What a thrice-double ass / Was I to take this drunkard for a god / And worship this dull fool" (5.1.298-301). It is interesting to note that Caliban says that henceforth he will be seeking "grace" and penitence for his crime. Caliban earlier adopted a stance of resistance by cursing. Even when he speaks the most lyrical and poetic lines in Act 3 Scene 2, he talks of magic and dreams. Just as he enters in the final scene, he swears by "Setebos" (5.1.263). But after Prospero acknowledges him, his language undergoes a dramatic change. He talks of seeking grace and abandoning his earlier gods. He is as if taken over by the maxim "To err is human, to forgive divine," where Prospero by forgiving has been equated with divinity. He is persuaded that Prospero, and by extension the Christian God, is all-powerful. Whatever expectations he had of finding a stronger power, he has lost it now. More than that, he is in Prospero's total sway of magnanimity. The act of Prospero's compassion has totally transformed him. He realizes his mistake, and like a truly converted Christian, he renounces the pagan and false gods and decides to "seek for grace" (5.1.299). *The Tempest*, by projecting this transformation (a religious conversion) of Caliban participates in the colonial discourse.

That brings us to the Vaughans' question: Is Caliban free? He is free as far as Prospero has left him to rule over the island. But when seen as a person who has been proselytized, who has been coerced to give up his way of life, we question the freedom. Moreover, with Prospero's stamp of legitimacy over Caliban and the island, Caliban's political freedom is always dependent upon the mother country, i.e. Milan. Though Caliban is left to fend for himself, the possible indication is that the island will remain an outpost of the Milanese nation. Moreover, Shakespeare did not even provide Caliban with sexual desire other than his attempted rape of Miranda, let alone a sexual partner. Though Caliban has been provided with the most poetic lines in the play, yet these lines are bereft of any sexual desire as if he is a sexless being. Caliban at the end is left without any partner to people the island in the final scene. A more tragic story of the colonized is yet to be written. Therefore, is it time for us to give up on the colonialist approach of reading *The Tempest* as the post revisionists would want us to? I should say not yet. For a new story has to be written on Caliban's proselytized freedom, on his postcolonial (?) days to complete the story of his tormented emancipation.

Alden T. Vaughan and Virginia Mason Vaughan would want us to believe that "The Third



World adoption of Caliban is ironic” (162). They argue that “Although [Caliban] readily symbolizes its oppressed and exploited peoples, he originally was a European construct –the product of an English imagination” (162). What the Vaughans forget is that the answer to their why lies in Caliban’s story itself. Prospero is in the certainty that language, which is his gift to Caliban, is at the same time a prison where Caliban’s achievements must be realized and restricted (Lamming, qtd. in Singh 207). The play, however, exhibits the manner in which Caliban appropriates the colonizer’s language for his own political ends. Though he doesn’t succeed, yet he voices his opposition and effectively frustrates Prospero. Europeans and the West in general have been perpetrators of imperialistic design since the renaissance. Therefore, it becomes even more effective when the artistic creation of the best among the European minds is adopted as a metaphor for the forcibly dispossessed. A metaphor from a developing nation would not evoke much response or interest among the colonizers. English being the most popular language in the world today and Shakespeare being the greatest exponent of the use of the language, his characters will be perennially discussed, debated and identified with. Hence, it is not surprising for the authors from the developing countries to choose Caliban as a metaphor of human oppression. And as far as the question of whether the high tide of Caliban’s Third World role probably has passed, the answer would be unlikely. For just as when we thought that the days of imperialism were over, in the current sociopolitical world scenario we are experiencing the unfolding of another chapter in imperialism. Until such a force exists, Caliban will perform an important emblematic function as a figure of rebellion and as well as a terrible reminder of the “Other” succumbing to the coercive imperial power.

## Works Cited

- Fox-God, Jacquelyn. “Other Voices: The Sweet, Dangerous Air(s) of Shakespeare’s *Tempest*.” *Shakespeare Studies*. 24 (1996): 21 April 2016. <<http://search.epnet.com/direct.asp?an=9702184631&db=aph>>.
- Greenblatt, Stephen. “Invisible Bullets.” *Literary Theory: An Anthology*. Ed. Julie Rivkin and Michael Ryan. Malden: Blackwell Publishers, 1998.
- . -. *Learning to Curse: Essays in Early Modern Culture*. New York: Routledge, 1990.
- . -. *Marvelous Possessions: The Wonder of the New World*. Chicago: U of Chicago Press, 1991.
- Lupton, Julia Reinhard. “Creature Caliban.” *Shakespeare Quarterly*. 51.1 (Spring, 2000): 1-23.
- Shakespeare, William. “The *Tempest*.” *The Complete Works of Shakespeare*. Ed. David Bevington. 4<sup>th</sup> ed. New York: Longman, 1997.

- Vaughan, Alden T. "Shakespeare's Indian: The Americanization of Caliban." *Shakespearean Quarterly*. 39.2 (Summer, 1988): 137-53.
- Vaughan, Alden T. and Virginia Mason Vaughan. *Shakespeare's Caliban: A Cultural History*. New York: Cambridge UP, 1996.
- Willis, Deborah. "Shakespeare's Tempest and the Disclosure of Colonialism." *Studies in English Literature*. 29.2 (Spring, 1989): 277-89.



# Some Properties of Exponentiated Weibull Distribution

*Tanka Raj Adhikari, Ph.D.\**

## **Abstract**

*In this paper, the exponential weibull distribution has been described. Its probability density function, cumulative distribution function, survival function and hazard function have been discussed. The maximum likelihood method has been discussed. Its Genesis has been discussed and different parameters concerning this distribution are estimated by the method of maximum likelihood estimation.*

**Key words:** *Exponentiated Weibull Distribution, Probability Density Function, Survival Function, Hazard Function, Genesis, Maximum Likelihood Estimation Method,*

## **Introduction:**

Let us consider the cumulative distribution function of the famous Gompertz (1825) distribution, which is being used since the first half of the nineteenth century to compare the known human mortality tables and to represent the growth of population is given by

$$H(t) = [1 - \beta e^{-t\theta}]^{\alpha} : \text{for } t > \frac{1}{\theta} \log \beta \quad (1)$$

Where  $\alpha$ ,  $\beta$  and  $\theta$  are all positive real numbers Abuja, J.C. and Nash, S.W. (1967). Now if  $\beta = 1$  and  $\alpha = 1$ , (1) becomes

$$H(t) = [1 - e^{-t\theta}] \quad (2)$$

Which is the cumulative distribution function of exponential distribution, this led to idea of genesis of an exponentiated exponential distribution by taking  $\beta = 1$  and the corresponding cumulative distribution function becomes

$$H(t) = [1 - e^{-t\theta}]^{\alpha} \quad (3)$$

The exponentiated exponential distribution family has two parameters (scale and shape) similar to the Weibull or Gamma family. They observed that many properties of the new family are similar to those of the Weibull or Gamma family. Hence the distribution can be used as an alternative to a Weibull or Gamma distribution. The two-parameter Weibull and Gamma distributions are the most popular distributions used for analyzing survival data. The gamma distribution has wide applications but its major drawback is that its survival function can be obtained in a closed form only if the shape parameter is an integer. Due to this fact Gamma distribution is less popular than the Weibull distribution, since the survival function and hazard function of Weibull distribution are very simple and easy to calculate. On the pattern of the ideas introduced in (1.1) to (1.3) an exponentiated Weibull family was introduced by Mudholkar and Srivastava (1993). It has a scale parameter and two shape parameters. The Weibull and the

exponentiated exponential families are particular cases of this family (Mudholkar, G.S. et al (1995)). In this paper we have introduced an Exponentiated Weibull distribution, presented its genesis and some properties and maximum likelihood estimation of the parameters has been attempted.

### Properties

Let us consider a two parameter Weibull population with probability density function (pdf), given by

$$f(x; \theta, \beta) = \frac{\beta}{\theta} x^{\beta-1} e^{-\left(\frac{x^\beta}{\theta}\right)}; \beta, \theta > 0, x > 0 \quad (4)$$

Its cumulative distribution function (cdf) comes out to be

$$F(x) = \text{Pr.}(X \leq x) = \int_0^x \frac{\beta}{\theta} x^{\beta-1} e^{-\left(\frac{x^\beta}{\theta}\right)} dx \quad (5)$$

or,

$$F(x) = 1 - e^{-\left(\frac{x^\beta}{\theta}\right)} \quad (6)$$

The survival function is obtained as

$$S(x) = \text{Pr.}(X > x) \\ S(x) = 1 - F(x) = e^{-\left(\frac{x^\beta}{\theta}\right)} \quad (7)$$

Let us introduce an 'exponentiating shape parameter' ' $\alpha$ ' and define an 'Exponentiated Weibull distribution' over the cdf (6) with cdf as given by (in terms of a random variable  $x$ )

$$G_\alpha(x) = [F(x)]^\alpha = \left(1 - e^{-\left(\frac{x^\beta}{\theta}\right)}\right)^\alpha \quad (7)$$

Differentiating (7) with respect to  $x$ , we get the pdf of corresponding exponentiated Weibull distribution (EWD) as

$$g_\alpha(x) = \frac{\alpha\beta}{\theta} x^{\beta-1} e^{-\left(\frac{x^\beta}{\theta}\right)} \left(1 - e^{-\left(\frac{x^\beta}{\theta}\right)}\right)^{\alpha-1}; \alpha, \beta, \theta > 0 \quad (8)$$

The survival function of this distribution comes out to be

$$S_\alpha(x) = 1 - \left(1 - e^{-\left(\frac{x^\beta}{\theta}\right)}\right)^\alpha \quad (9)$$

The hazard function or instantaneous failure rate  $\lambda(x)$  may be obtained using (7) is as follows:

$$\lambda(x) = \frac{\frac{\alpha\beta}{\theta} x^{\beta-1} e^{-\left(\frac{x^\beta}{\theta}\right)} \left(1 - e^{-\left(\frac{x^\beta}{\theta}\right)}\right)^{\alpha-1}}{1 - \left(1 - e^{-\left(\frac{x^\beta}{\theta}\right)}\right)^\alpha} \quad (10)$$

The hazard function  $\lambda(x)$  as given in (10) takes different shapes depending on the shape parameters  $\alpha > 0$  and  $\beta > 0$ . The boundary line  $\beta = 1$  and the curve  $\alpha\beta = 1$  divide the whole region into four parts in which the shape of  $\lambda(x)$  is different. Following the Mudholkar, G.S. et al. (1995) we find that the hazard function is as:

- (a) monotone increasing for  $\beta \geq 1$  and  $\alpha\beta \geq 1$ ;
- (b) monotone decreasing for  $\beta \leq 1$  and  $\alpha\beta \leq 1$ ;
- (c) bathtub shaped for  $\beta > 1$  and  $\alpha\beta < 1$ ; and
- (d) unimodal for  $\beta < 1$  and  $\alpha\beta > 1$ .

In this distribution we have two shape parameters namely  $\alpha$  and  $\beta$ . If we take  $\beta = 1$  the distribution belongs to the exponentiated exponential family (Pal, M., et al. (2006)), although with one generated from the exponential pdf

$$f(x; \theta) = \frac{1}{\theta} e^{-\left(\frac{x}{\theta}\right)}; x, \theta > 0$$

If  $\alpha = 1$  is taken then it represents the weibull family. Thus Exponentiated Weibull distribution is a generalization of both Weibull and exponentiated exponential distribution families. The density function of Exponentiated Weibull distribution (8) is unimodal and for fixed  $\beta$  and  $\theta$  it tends to be more symmetrical as  $\alpha$  increases.

The  $r$ th raw moment of the EW distribution is defined as

$$E(x^k) = \int_0^{\infty} x^k \frac{\alpha\beta}{\theta} x^{\beta-1} e^{-\left(\frac{x^\beta}{\theta}\right)} \left(1 - e^{-\left(\frac{x^\beta}{\theta}\right)}\right)^{\alpha-1} dx \quad (11)$$

#### Maximum Likelihood Estimation of Parameters:

Let us suppose that  $\underline{x} = (x_1, \dots, x_n)$  is a random sample of size  $n$  from the Exponentiated Weibull distribution with pdf (8). Now the likelihood function is given by

$$L(\theta, \beta, \alpha | T) = k \left(\frac{\alpha\beta}{\theta}\right)^n \left(\prod_{i=1}^n x_i^{\beta-1}\right) e^{-\left(\frac{\sum_{i=1}^n x_i^\beta}{\theta}\right)} \prod_{i=1}^n \left[1 - e^{-\left(\frac{x_i^\beta}{\theta}\right)}\right]^{\alpha-1} \quad (12)$$

The log likelihood function is

$$\begin{aligned} \log L = \log k + n \log \alpha = & + n \log \beta - n \log \theta + (\beta - 1) \sum_{i=1}^n \log x_i - \frac{\sum_{i=1}^n x_i^\beta}{\theta} \\ & + (\alpha - 1) \sum_{i=1}^n \log \left[1 - e^{-\left(\frac{x_i^\beta}{\theta}\right)}\right] \end{aligned} \quad (13)$$

Then differentiating  $\log L$  with respect to  $\alpha$ ,  $\theta$  and  $\beta$ , respectively and equating to zero, we get the likelihood equation as follows

$$(i) \quad \frac{\partial}{\partial \alpha} \log L = 0$$

$$\Rightarrow \frac{n}{\alpha} + \sum_{i=1}^n \log \left[ 1 - \alpha^{-\left(\frac{x_i^\beta}{\theta}\right)} \right] = 0$$

$$\Rightarrow \hat{\alpha} = \frac{n}{\sum_{i=1}^n \log \left[ 1 - \alpha^{-\left(\frac{x_i^\beta}{\theta}\right)} \right]}$$

$$(ii) \frac{\partial}{\partial \theta} \log L = 0$$

$$\Rightarrow -\frac{n}{\theta} + (\alpha - 1) \sum_{i=1}^n \frac{\alpha^{-\left(\frac{x_i^\beta}{\theta}\right)}}{\left[ 1 - \alpha^{-\left(\frac{x_i^\beta}{\theta}\right)} \right]} \left( \frac{x_i^\beta}{\theta} x_i^{\beta-1} \right) + \frac{\sum_{i=1}^n x_i^\beta}{\theta^2} = 0$$

$$\Rightarrow -n + \beta(\alpha - 1) \sum_{i=1}^n \frac{x_i^{\beta-1} \alpha^{-\left(\frac{x_i^\beta}{\theta}\right)}}{\left[ 1 - \alpha^{-\left(\frac{x_i^\beta}{\theta}\right)} \right]} + \frac{1}{\theta} \sum_{i=1}^n x_i^\beta = 0$$

$$(iii) \frac{\partial}{\partial \beta} \log L = 0$$

$$\Rightarrow \frac{n}{\beta} + \sum_{i=1}^n \log z_i - \frac{1}{\theta} \sum_{i=1}^n x_i^\beta \log x_i + (\alpha - 1) \sum_{i=1}^n \frac{\alpha^{-\left(\frac{x_i^\beta}{\theta}\right)}}{\left[ 1 - \alpha^{-\left(\frac{x_i^\beta}{\theta}\right)} \right]} \left( -\frac{x_i^\beta \log x_i}{\theta} \right) = 0$$

(16)

Properties of the log-likelihood function may be obtained, following Pal, M., et al. (2006), as  
 (a) for given  $\beta$  and  $\theta$ ,  $L$  is a strictly concave function of  $\alpha$ . Also, the optimal value of  $\alpha$ , given by (14), is a concave decreasing function of  $\theta$  for given  $\beta$ ;

(b) for given  $(\alpha, \beta)$ , and  $\alpha > 1$ ,  $L$  is a strictly concave function of  $\theta$ .

Let us denote the parameter vector by  $\lambda = (\alpha, \theta, \beta)'$  and the corresponding MLE of  $\lambda$  as  $\hat{\lambda} = (\hat{\alpha}, \hat{\theta}, \hat{\beta})'$  then the asymptotic normality results

$$\sqrt{n}(\hat{\lambda} - \lambda) \rightarrow N_3(0, I^{-1}(\lambda))$$

(17)

Where  $I(\lambda)$  is the Fisher's information matrix given by

$$I(\lambda) = \begin{bmatrix} E\left(\frac{\partial^2 L}{\partial \alpha^2}\right) & E\left(\frac{\partial^2 L}{\partial \alpha \partial \theta}\right) & E\left(\frac{\partial^2 L}{\partial \alpha \partial \beta}\right) \\ E\left(\frac{\partial^2 L}{\partial \alpha \partial \theta}\right) & E\left(\frac{\partial^2 L}{\partial \theta^2}\right) & E\left(\frac{\partial^2 L}{\partial \theta \partial \beta}\right) \\ E\left(\frac{\partial^2 L}{\partial \alpha \partial \beta}\right) & E\left(\frac{\partial^2 L}{\partial \theta \partial \beta}\right) & E\left(\frac{\partial^2 L}{\partial \beta^2}\right) \end{bmatrix}$$

## Rererences

- Gupta, R.D. and D. Kundu (2001): "Exponentiated Exponential Family: An Alternative to Gamma and Weibull," Biometrical Journal, Vol. 43, No. 1, pp. 117-130.
- Mudholkar, G.S., Srivastava, D.K. (1993): "Exponentiated Weibull Family for Analyzing Bathtub
- Mudholkar, G.S., Srivastava, D.K., and Freimer, M. (1995): "The Exponentiated Weibull family : A Reanalysis of the Bus-Motor-Failure Data," Technometrics, Vol. 37, No. 4, pp. 436-445.
- Pal, M. Ali, M.M. and Woo, J. (2006): Exponentiated Weibull Distribution," STATISTICA, an no LXVI, n. 2, pp. 139-147.
- Bain, L.J. (1991): Statistical Analysis of Reliability and Life-Testing Models. Marcel Dekker, New York.
- Basu, A. and Ebrahimi, N. (1991): "Bayesian approach to life testing and reliability estimation using asymmetric loss function". Jour. Statist. Plan. Inf. 29, pp 21-31.
- Bhattacharya, S.K. and Singh, N.K. (1993): Bayesian analysis of the mixture of exponential failure distributions, Micro electron Reliab., Vol. 33, No. 8, pp. 1113-1117.
- El-Sayyad, G.M. (1967): Estimation of the parameters of an exponential distribution, J. Roy Statistical Soc., Ser. B, 29, pp. 525-532.
- Norstrom, J.G. (1996): The use of precautionary loss functions in risk analysis, IEEE Trans. Reliab., 45(3), pp. 400-403.
- Pandey, B.N. (1997): Testimator of the scale parameter of the exponential distribution using lines loss function, Commun. Statist. & M, 18, pp. 1175-1199.
- Sinha, S.K. and Guttman, I.(1988): Bayesian analysis of life testing problems involving the Weibull distribution, Comm. Statist., A 17, pp. 343-356.
- Sourabh K. Sinha (2009): 'Statistical Inferences for Weibull Survival Models from Life Test Data', Ph.D. thesis , DDU Gorakhpur University, Gorakhpur.
- Srivastava, R.S. and Srivastava, U. (1991): "Use of iteration technique in improving some estimators," J. Nat. Acad. Math., 9, pp. 48-53.
- Srivastava, R.S. (1986): "On the estimation of mean lifetime from a time censored sample using exponential failure model. J. Nat. Acad. Math., 4, pp. 107-113.
- Pandey, B.N. (1997): Testimator of the scale parameter of the exponential distribution using lines loss function, Commun. Statist. & M, 18, pp. 1175-1199.

# सामुदायिक विद्यालयमा सञ्चालित प्रारम्भिक बालविकास कक्षाकोठाको व्यवस्थापन

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## सार

यस लेख प्रथमिक विद्यालयमा बालमैत्री कक्षा व्यवस्थापन शीर्षकको अनुसन्धान समिति पृथ्वीनारायण क्याम्पस पोखरामा प्रस्तुत लघु अनुसन्धानका आधारमा तयार पारिएको हो । सामुदायिक विद्यालयले तीन देखि चार वर्ष उमेरका बालबालिकालाई शिक्षा दिने उद्देश्यले सञ्चालित गरिएका कक्षालाई प्रारम्भिक बाल विकास कक्षा भनिन्छ । बालमैत्री कक्षामा बाल बालिकाले आफ्नो शारीरिक मानसिक तथा सवेगात्मक क्षमता अनुसार सिक्न सक्ने वातावरण तयार पारिएको हुन्छ । बाल बालिकालाई उनीहरूको जात जाति धर्म, भाषा, सम्प्रदाय तथा आर्थिक सामाजिक असमनतलाई आधार नलिई विना भेदभाव व्यवहार गरिनु बालमैत्री विद्यालयको लक्षण हो । प्रारम्भिक बालविकास कक्षाकोठा व्यवस्थापनको स्थिति पत्ता लगाउने, बालमैत्रीका दृष्टिले कक्षाकोठा व्यवस्थापनको विश्लेषण गर्नु र बालमैत्री कक्षाकोठा व्यवस्थापनमा देखिएका समस्या पहिचान गर्नु यस अध्ययनका उद्देश्य रहेका छन् ।

विद्यालयमा बालमैत्री वातावरण निर्माणका लागि विद्यालयमा आवश्यक पर्ने शैक्षिक सामग्रीको व्यवस्था गर्नु पर्दछ भने शिक्षकहरूलाई समय समयमा तालिम दिनु पर्दछ । विद्यालयमा बालमैत्री वातावरणको लागि प्र.अ. लाई तालिम दिई विद्यालयलाई आवश्यक पर्ने भौतिक, आर्थिक, शैक्षिक सामग्री उपलब्ध गराउनु पर्छ । सम्बन्धित साहित्यको समीक्षा, पूर्व साहित्यको पुनरावलोकनका आधारमा यस अध्ययनका लागि अवधारणात्मक ढाँचा प्रस्तुत गरिएको छ । अवधारणात्मक ढाँचाको आधारमा यस अध्ययनलाई अगाडि बढाइएको छ । यस अध्ययन मिश्रित (परिमाणात्मक र गुणात्मक) ढाँचामा गरिएको छ । अध्ययनमा प्रश्नावली, रूजुसूची, जस्ता साधनहरूको प्रयोग गरिएको छ भने यस अध्ययनको जनसङ्ख्या अध्ययन क्षेत्रका प्र.अ., शिक्षक, स्रोत व्यक्ति र विद्यार्थी रहेका छन् । यस अध्ययनमा उद्देश्यमुख, नमुना छनोट विधिहरूको प्रयोग गरिएको छ ।

**मुख्य शब्दहरू :** प्रारम्भिक, बाल विकास कक्षा, बालमैत्री विद्यालय, सामुदायिक विद्यालय, कक्षा कोठा व्यवस्थापन

## परिचय

### प्रारम्भिक बाल विकासको धारणा

बाल्यावस्था भन्नाले सामान्यतया तिन वर्ष मुनिका बाल बालिकालाई लिइन्छ । यो अवस्थालाई जीवनको आधार मानिन्छ किनभने यस अवस्थामा सिकेका सम्पूर्ण कुराहरूको प्रभाव बाल बालिकाहरूको जीवनभरि परिरहन्छ । यस अवस्थामा शिशुलाई प्रेरणा र प्रशंसा गर्नुपर्छ । घृणा र भेदभाव बिच हुर्केको शिशुले घृणा मात्र गर्न सिक्छ तर माया ममता पाई हुर्केको शिशुले आफ्नो संसारमा पनि शान्ति र सुख भेट्छाउन सक्छ ।

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\* शिक्षा शास्त्र संकाय पाठ्यक्रम तथा मूल्याङ्कन विषय पृथ्वीनारायण क्याम्पस

नेपालमा सञ्चालित प्रारम्भिक बाल विकास केन्द्रहरूलाई विभिन्न नाम दिइएको छ। गैर सरकारी तथा सरकारी सघं संस्थाहरूले समुदायमा आधारित बाल विकास केन्द्र र सामुदायिक विद्यालयहरूले विद्यालयमा आधारित बाल विकास केन्द्र सञ्चालन गरेका छन्। विभिन्न सरकारी तथा गैर सरकारी संस्थाहरूको सहयोगमा संचालित बाल विकास केन्द्रहरूलाई शिशु स्याहार, जीवन वृद्धि र विकासका लागि शिशु स्याहार, बालशिक्षा, शिशु स्याहार तथा शिक्षा शिशु स्याहार तथा विकास, प्रारम्भिक बाल विकास नर्सरी विद्यालय किन्डर गार्डेन विद्यालय, पूर्व विद्यालय शिक्षा, पूर्व प्राथमिक शिक्षा (विद्यालयले सञ्चालन गरेको) आदि नामबाट चिनिन्छ (रणनीति पत्र, २०६१)।

सिद्धान्ततः प्रारम्भिक बाल विकास केन्द्रहरू समुदायमा आधारित हुन्छन् र पूर्व प्राथमिक शिक्षा विद्यालयमा आधारित हुन्छन् प्रारम्भिक बाल विकास केन्द्रमा ३ वा ४ वर्षका बाल बालिकालाई शिक्षा दिइन्छ र पूर्व प्राथमिक शिक्षामा ४ वर्ष उमेर पूरा गरेका बाल बालिकाहरूलाई १ वर्षको पूर्व प्राथमिक शिक्षा दिइन्छ। दुवै संरचनामा कक्षा १ मा भर्ना हुनुपूर्वका बाल बालिकाहरूलाई शिक्षा दिई विद्यालय आउने बानीको विकास गरिन्छ। (प्रशिक्षक, प्रशिक्षण निर्देशिका २०६७)

### प्रारम्भिक बाल विकासमा सिकाइ प्रक्रिया

बाल बालिकाले अहिले सिकेका कुरा नै भविष्यको सिकाइको जग हुने भएकाले यस तहमा बाल बालिकालाई सिक्नका लागि सिक्ने अभिप्रायले मनोरञ्जनात्मक तरिकाले खेल र वातावरणबाट प्राप्त अनुभवको माध्यमबाट बाल बालिकामा अन्तर्निहित क्षमताको अभिवृद्धि गराई उनीहरूलाई भविष्यमा असल जीवन यापन गर्न सक्षम तुल्याउने किसिमबाट तिन र चार वर्षका बाल बालिकाका लागि मनोरञ्जनात्मक र खेलकुद क्रियाकलाप अन्तर्गत स्वतन्त्र खेल, छलफल, सिर्जनात्मक खेल, शारीरिक खेल, निर्देशित खेल जस्ता क्रियाकलाप सञ्चालन गरी कक्षा १ मा समायोजन हुन मद्दत पुग्ने किसिमबाट पारिवारिक वातावरणको सिर्जना गरी शैक्षणिक क्रियाकलाप गरीएको हुन्छ (प्रधानाङ्ग, २०६८)।

बालमैत्री कक्षा व्यवस्थापन कक्षाकोठा निर्माणमा सबै विद्यार्थीको समान र सक्रिय सहभागिता, विद्यार्थीहरूको कल्याण तथा हित र सुरक्षा हुने खालका नियमहरू विद्यार्थीले बुझ्ने र बुझाउने वातावरण सिक्नका लागि विद्यार्थीलाई उत्प्रेरित, कक्षाकोठामा कुनै किसिमको भेदभाव रहित शिक्षण, बालकेन्द्रित पाठ्यक्रम र रमाइला सिकाइ विधिको प्रयोग गरीएको मनोवैज्ञानिक एवम् भौतिक रूपमा सफा र शान्त वातावरण भएको कक्षाकोठाको व्यवस्थापनलाई बालमैत्री व्यवस्थापनको रूपमा लिन सकिन्छ। अथवा बाल बालिकाले आफ्नो गति र क्षमता अनुसार रमाइलोसँग सिक्ने वातावरण भएको विद्यालय बालमैत्री विद्यालय हो। यस्ता विद्यालयमा बाल बालिकाहरूको अन्तर्निहित क्षमताको विकास गरिन्छ। (बालमैत्री विद्यालय राष्ट्रिय प्रारूप, २०६७)।

### समस्याको कथन

यातना पीडित सरोकार केन्द्रले नेपालका ११ ओटा जिल्लाहरूमा गरेको अध्ययनमा ८० प्रतिशत भन्दा वढी विद्यार्थीले अध्ययनका क्रममा विद्यालय छाड्नुको कुनै न कुनै कारण शिक्षकको पिटाइ र दुर्व्यवहार भएको उल्लेख



गरीएको छ (पौडेल २०६३) ।

CERID (2004) को Effective operation and sustainable development of early childhood and development program strategies for rapid expansion शीर्षकमा गरिएको अध्ययनले निष्कर्ष प्रारम्भिक बाल विकास केन्द्र नीतिमा छिटोछिटो परिवर्तन भएको कारण अन्यौल रहेको, केही INGO हरूले आफ्नै पाठ्यक्रम प्रयोगमा ल्याउने गरेकाले प्रारम्भिक बाल विकास केन्द्रको क्रियाकलापमा एकरूपता पाउन नसकिएको, INGO हरूबाट समुदायको माग अनुसार प्रारम्भिक बाल विकासकेन्द्र सञ्चालन गर्न दिने भएकाले यसमा समस्या नदेखिएको तर शिक्षा विभाग अन्तर्गत सञ्चालनमा हुने प्रारम्भिक बाल विकासकेन्द्रहरू निश्चित कोठामा आधारित भएकाले माग भए अनुसार वितरण गर्न नसकिएकाले जस्ता समस्या देखाइएको छ ।

- यस अध्ययनमा निम्न प्रश्नको उठान गरिएको छ ।
- सामुदायिक विद्यालयमा सञ्चालित प्रारम्भिक बालविकास कक्षा व्यवस्थापन कस्तो रहेको छ ?
- कक्षा कोठा व्यवस्थापन बालमैत्रीका दृष्टिकोणले कस्तो छ ?
- बालमैत्री कक्षाकोठा व्यवस्थापनमा देखिएका समस्याहरू के के छन् ?
- यस अध्ययनमा उल्लेखित प्रश्नहरूको उत्तर खोज्ने प्रयास गरीएको छ ।

### अध्ययनका उद्देश्यहरू

यस अध्ययनका लागि निम्नानुसारका उद्देश्यहरू राखिएका छन् :

१. प्रारम्भिक बालविकास कक्षाकोठा व्यवस्थापनको स्थिति पत्ता लगाउनु ।
२. बालमैत्रीका दृष्टिले कक्षाकोठा व्यवस्थापनको विश्लेषण गर्नु ।
३. बालमैत्री कक्षाकोठा व्यवस्थापनमा देखिएका समस्या पहिचान गर्नु ।

### अध्ययनको परिसीमा

यस अध्ययन कास्की जिल्ला पोखरा उपमहानगर पालिकाका सामुदायिक विद्यालयमा सञ्चालित प्रारम्भिक बाल विकास कक्षाकोठाको व्यवस्थापन त्यसमा देखिएका समस्यामा सीमित गरिएको छ ।

### अध्ययनको औचित्य

शिक्षाको गुणस्तर विकासमा नेतृत्वदायी भूमिका भएका शिक्षकहरूले बालमैत्री तथा दण्डरहित शिक्षण जोड दिऊन भन्ने उद्देश्यले नेपाल सरकार, शिक्षा मन्त्रालय, शैजविके साथै केही गैरसरकारी संस्थाहरूले पनि विगतदेखि वर्तमानसम्म आइपुग्दा विविध प्रकारका कार्यक्रमहरू सञ्चालन गर्दै आएका छन् । प्रारम्भिक बालविकास कक्षामा बालमैत्री शिक्षण सिकाइ मार्फत् शिक्षामा सकारात्मक परिवर्तन ल्याई अपेक्षित उपलब्धि हासिल गराउनु, बाल बालिकालाई विद्यालयप्रति सकारात्मक सोच विकास गराउनु, औचित्यपूर्ण हुने छ । यस क्षेत्रमा राष्ट्रले गरेको खर्च खेर जान नदिन बालमैत्री शिक्षण बारे कार्यक्रमको योजना बनाउने, कार्यान्वयन गर्ने, अनुगमन गर्ने तथा यस क्षेत्रमा अध्ययन अनुसन्धान गर्ने पक्षलाई समेत यस अध्ययनले सहयोग गर्ने छ ।

## अध्ययन विधि

यस अनुसन्धानमा अध्ययनको उद्देश्य अनुसार उत्तरदाताहरूबाट आवश्यक सूचना संकलन गरि मिश्रित अनुसन्धान ढाँचा (गुणात्मक र परिमाणत्मक) प्रयोग गरि सूचनाको व्याख्या एवं विश्लेषण गरिएको छ। अध्ययन क्षेत्रका सम्पूर्ण प्र.अ., शिक्षक, विद्यार्थी, स्रोत व्यक्ति अध्ययनका जनसंख्या रहेका छन्। अध्ययनमा उद्देश्यउन्मुख विधिको प्रयोग गरी उत्तरदाताहरू छनोट गरिएको छ।

नमुना छनोटमा परेका विद्यालयमा पुगी प्रत्यक्ष अवलोकन विधि द्वारा कक्षा अवलोकन गरी रुजुसूची भरि आवश्यक सूचना संकलन गरिएको थियो। प्र.अ.लाई रुजुसूची र प्रश्नावली भर्न लगाइएको थियो। शिक्षक स्रोत व्यक्ति वि.नि लाई प्रश्नावली भर्न लगाइएको थियो। विद्यार्थीको लागि रुजु सूची र प्रश्नावली बनाई विद्यार्थीसँग सोधि भर्ने काम गरिएको थियो। जस मार्फत् अध्ययनको लागि आवश्यक पर्ने सूचना संकलन गरिएको थियो।



## कक्षाकोठा व्यवस्थापनको स्थिति

यस अध्ययनमा विद्यालयहरूले बालमैत्री कक्षाकोठाको व्यवस्थापन कसरी गरीरहेका छन् भनी निर्माण गरि एको साधनहरूको प्रयोग गरी सम्बन्धित पक्षहरूबाट सुचनहरू सङ्कलन गरी यहा विभिन्न उपशीर्षकमा रहेर व्याख्या एवम् विश्लेषण गरिएको छ।

कक्षाकोठाको व्यवस्थापनमा कक्षाकोठाका भित्ताहरूमा पोस्टरको व्यवस्था गर्नु पर्दछ। जसबाट विद्यार्थीलाई आफूले आवश्यक ज्ञान प्राप्त गर्नका साथै सिक्नु पर्ने विषयवस्तु सिक्नको लागि सहयोग गर्दछ। कप्युसियसले हजार शब्द बोलेर बुझिने कुरा एकै चित्रबाट छर्लङ्ग हुन्छ भनेका थिए। विद्यार्थीलाई कुनै कुरा सिकाउनका लागि प्रवचन दिनु भन्दा विद्यार्थीलाई हेर्न लगाएमा त्यो धेरै प्रभावकारी हुन्छ विद्यार्थीलाई सिकाउनुपर्ने विषयवस्तु चित्रको माध्यमबाट सिकाउनु सजिलो हुन्छ। एउटा चाइनिज उखान छ सुनेको भुलिन्छ, देखेको सम्झिन्छ, गरेको बुझिन्छ। यसका आधारमा पनि के भन्न सकिन्छ भने एउटा कक्षाकोठाको व्यवस्थापन गर्दा कक्षाकोठामा पोस्टरको व्यवस्था गर्नु पर्दछ।



यस अध्ययनमा कक्षाकोठामा पर्वालको व्यवस्था के कस्तो रहेको छ भनी अवलोकन गरिएको थियो ।

बालमैत्री कक्षा व्यवस्थापन प्रारूप २०६८ अनुसार प्रति ०.५० वर्ग मिटर क्षेत्रफल भएको भवन तथा

सङ्ख्या १३-२१ को बिचमा रहेको पायो भने एउटा विद्यालयमा भने ३० रहेको पाइयो । विद्यार्थी संख्याको आधारमा कक्षाकोठाको मापदण्ड पुगेको पाइन्छ । कक्षाकोठामा विद्यार्थीहरू सक्रिय भई लेख्ने, पढ्ने, खेल्ने, म्याजिक साधन हरूमा वढी उत्साहित भइरहेको पाइयो ।

### कक्षाकोठाको भौतिक व्यवस्थापन

यस अध्ययनको अवधारणारात्मक ढाँचा अनुसार कक्षा व्यवस्थापन अन्तर्गत कक्षामा उपयुक्त बसाइ व्यवस्थापन, डेक्स र बेन्चको रखाइ व्यवस्थापन, कक्षा सरसफाइ, बोर्ड रखाइको व्यवस्थापन, कक्षा क्रिपयाकलापमा सबैको पहुँच विषयगत व्यवस्था, शैक्षिक सामग्री एवम् पाठ्य पुस्तक राख्ने व्यवस्था के कस्तो रहेको छ ? भनेर आवश्यक पर्ने सूचना सङ्कलन गरीएको छ जसलाई यहाँ प्रस्तुत गरीएको छ ।

### कक्षामा उपयुक्त बसाइ व्यवस्थापन

अध्ययन क्षेत्रका पाँच ओटा विद्यालय मध्ये तीन ओटा विद्यालयले विद्यार्थीलाई जुटको कार्पेट र त्यसमाथि चकटीको व्यवस्था गरेका छन् भने दुई ओटा विद्यालयले बस्नको लागि जुट कार्पेट चकटी, लेखन पढनको लागि टेबल प्रयोग गरेका छन् ।

### डेक्स बेन्च रखाइको व्यवस्थापन

अध्ययन क्षेत्रका विद्यालयमा डेक्स र बेन्च छुट्टाछुट्टै प्रयोग गरीएको छैन । लेखनका लागि टेबल प्रयोग गरीएको विद्यालयमा एउटा यु आकार बसाइको छ भने अर्को विद्यालयमा प्रत्येक छेउबाट हिडन मिल्ने गरी टेबल मिलाइएको देखिन्छ ।

### कक्षा सरसफाइ

अध्ययन क्षेत्रका विद्यालयका कक्षा कोठामा सरसफाई मध्यम खालको रहेको छ । अन्य फोहोर मैला भन्दा बच्चाहरूले आफै गरेको फोहोर कागजका टुक्राहरू रहेको पाइयो ।

### बोर्ड रखाइको व्यवस्था

कक्षाकोठामा बोर्ड राखाई करिब दुई फिटको उचाइ माथि कक्षाकोठामा विद्यार्थीको अगाडि सबैले देख्ने गरी राखेको पाइन्छ । छनोटमा परेका विद्यार्थीसँग प्रतिक्रिया लिँदा पनि उनीहरूले हामीले बोर्डमा लेखेको देखेका छौं भन्ने प्रतिक्रिया दिन्छन् भने अवलोकनका क्रममा पनि विभिन्न स्थानमा बसेर निरीक्षण गरीएको थियो । बोर्डमा लेखेको विषयवस्तु राम्रोसँग देख्न सकियो । सबै विद्यालयमा सेतो बोर्ड र लेखनका लागि मार्करको प्रयोग गरीएको छ । जसलाई चित्रमा देखाइएको छ ।



### कक्षा क्रियाकलापमा सबै विद्यार्थीको पहुँच

अध्ययन क्षेत्रका सबै विद्यालयमा शिक्षकहरू सबै विद्यार्थी समक्ष सहज रूपमा पुग्न सक्ने गरी बसाई व्यवस्थापन गरेको देखियो। विभिन्न खेल खेल्न, नमुना तयार गर्न, खेल्ने सामग्री भने सबै विद्यार्थीलाई पुग्ने गरी रहेको देखिएन।

### विषयगत कुनाको व्यवस्था

स्रोत व्यक्तिका अनुसार विषयगत कुना भनेको प्रत्येक विषयका लागि छुट्टा छुट्टै सामग्री रहेको दराज वा राख्ने ठाउँ हो। जहाँ विद्यार्थी आफूलाई जे मन पर्दछ त्यही विषयगत कुनामा गई सामग्री ल्याएर खेल्दछन्। अध्ययन क्षेत्रका विद्यालयहरूमा यस किसिमको व्यवस्था रहेको देखिदैन। सामग्रीहरू एकै ठाउँमा राखिएको छ सामग्री दिदा भने विद्यार्थीले मागे अनुसारका सामग्री भए सम्म दिने गरेको पाइयो विषयगत कुनाको व्यवस्था दुई ओटा विद्यालयले छुट्टा छुट्टै तिन ओटा दराज बनाएको तर त्यसमा सामग्री भने नराखेको पाइयो। विद्यालयमा केही सामग्री भए पनि विषयगत आधारमा मिलाएर राखिएको छैन।

### शैक्षिक सामग्री एवम् पाठ्यपुस्तक राख्ने व्यवस्था

विद्यालयहरूमा शैक्षिक सामग्री राख्नका लागि दराजको व्यवस्था गरिएको छ। प्रत्येक विद्यालयले पूर्व बाल विकास कक्षाका लागि कम्तीमा एउटा दराजको व्यवस्था गरेका छन्। दुई ओटा विद्यालयले विद्यार्थीका भोला एवम् पाठ्य पुस्तक राख्नको लागि टेबलको व्यवस्था गरेका छन्। एउटा विद्यालयले बच्चाहरूको भोला राख्ने तिन ओटा च्याकको व्यवस्था गरेको छ। २ ओटा विद्यालयका बच्चाहरूले आफ्नो भोला आफू वस्ने ठाउँमा नजिकै राख्ने गरेका छन्।



## सारांश

**कक्षाकोठा व्यवस्थापनको स्थिति:** अधिकांश विद्यालयमा पोस्टरको व्यवस्था गरिएको छ । पोस्टर रङ्गीन आकर्षक रहेका छन् । विद्यार्थीलाई अङ्ग्रेजी, नेपाली अङ्क र अक्षर साथै राष्ट्रिय जनावर, फुल विभिन्न फलफुल चिनाउने खालका रहेका छन् । अध्ययन क्षेत्रका सबै विद्यालय पोखरा उपमहानगर पालिका भित्रका भएकाले सबै विद्यालयमा पक्की पर्खाल र छानाको व्यवस्था रहेको छ । कक्षामा बाहिरी वातावरणको कोलाहलको प्रभाव देखिन्छ । एउटा विद्यालयमा बाहेक अन्य विद्यालयमा कक्षाकोठाको आकार तोकिएको अनुसारका रहेको छ । कक्षामा विद्यार्थी बस्नुको लागि जुट कार्पेट र फर्मको व्यवस्था गरिएको छ । विद्यार्थीलाई कक्षामा भोला किताब, कापी राख्नको लागि असुविधा देखिन्छ । केही विद्यालयमा विद्यार्थीलाई यु आकारमा राखिएको छ । विद्यार्थी सङ्ख्या बढी भएको विद्यालयमा विद्यार्थीलाई व्यक्तिगत रूपमा सहयोग गर्नका लागि एक जना थप सहयोगीको व्यवस्था गरिएको छ । बोर्डलाई सबै विद्यार्थीले देख्ने गरी मिलाएर राखिएको छ । कक्षामा बालमैत्री कक्षा व्यवस्थापनको भावना अनुसार सबै विद्यार्थी राम्रोसँग खेल्न, सक्ने अवस्था छैन । शैक्षिक सामग्री एवम् विद्यार्थीका भोला, खाजा पानी राख्नका लागि दराजको व्यवस्था रहेको पाइन्छ ।

## सुझावहरू

यस अध्ययनबाट प्राप्त सूचनाको विश्लेषणका आधारमा कक्षा व्यवस्थापन प्रभावकारी रूपमा गर्न सकियो भने शैक्षिक गुणस्तर सुधार हुने देखिन्छ । अध्ययनका क्रममा प्राप्त भएका सूचना एवम् समस्या समाधानका उपायहरूको आधारमा यसले राखेका लक्ष्य एवम् उद्देश्यहरू परिपूर्तिका लागि आवश्यक सुझावहरू सहित यसको उपयोगिता निम्नानुसार उल्लेख गरिएको छ :

### नीति निर्माण तहका लागि सुझाव

- नेपाल सरकार शिक्षा मन्त्रालयले लागु गरेको बालमैत्री विद्यालय प्रारूप २०६७ अनुसार सबै विद्यालयका कक्षाकोठाहरूको भौतिक सुधार र शैक्षिक सामग्रीको व्यवस्थापनका लागि नीतिगत योजना बनाउनु पर्दछ ।
- सामुदायिक विद्यालयमा प्राय न्यून आय भएका विद्यार्थीहरू अध्ययन गर्ने हुनाले प्रथमिक विद्यालयमा पढ्ने विद्यार्थीको लागि कापी, कलम, पोशाक र खाजाको व्यवस्था गर्नु पर्दछ ।
- बालमैत्री विद्यालय राष्ट्रिय प्रारूप २०६७ ले कायम गरेको न्यूनतम र अपेक्षित मापदण्ड पूरा गर्नको लागि सरोकारवालाहरू बिच समन्वय हुने योजनाको व्यवस्था गर्नु पर्दछ ।

### कार्यान्वयन तहका लागि सुझाव

- प्र.अ., शिक्षकलाई विद्यालयमा बालमैत्री विद्यालय राष्ट्रिय प्रारूप २०६७ बारे जानकारी गराउनु पर्छ ।
- कक्षामा गीत, सङ्गीत र खेलको माध्यमबाट पढाउनुपर्दछ ।
- कक्षाकोठामा विषयवसँग सम्बन्धीत आकर्षक, स्थानीय रूपमा उपलब्ध हुने पोस्टरहरू टाँस्नु पर्दछ ।
- बालमैत्री शिक्षण तालिम पश्चात सो तालिमलाई कक्षाकोठामा पुर्‍याउनको लागि अल्छी तथा हेलचक्रयाँड गर्ने शिक्षकलाई दण्ड र मिहेनेती शिक्षकलाई पुरस्कृत गर्नु पर्दछ ।

- कम्तीमा पनि प्रधानाध्यापकले बालमैत्री शिक्षणका बहुआयामिक पक्षबारे अद्यावधिक भई आफ्ना शिक्षकहरूको कक्षा नियमित अवलोकन गरी पृष्ठपोषण दिनुपर्दछ।
- कक्षा ३ सम्म विषयवस्तुलाई भन्दा आधारभूत व्यवहार निर्माणमा जोड दिनु पर्दछ।

#### अनुसन्धान तहका लागि सुझाव

- शिक्षाशास्त्र संकायमा बालमैत्री शिक्षण विषयको आवश्यकता भन्ने शीर्षकमा अध्ययन गर्नु पर्ने देखिन्छ।
- बालमैत्री कक्षा व्यवस्थापन र शिक्षण सिकाइ सम्बन्धी चुनौतीहरू भन्ने शीर्षकमा अध्ययन गर्नुपर्ने देखिन्छ।

#### सन्दर्भ सामाग्री सूची

आचार्य, लोकनाथ (२०६७), **बालमैत्री विद्यालयको अवधारणा र आवश्यकता: बालमैत्री विद्यालय आजको आवश्यकता**, माछापुच्छ्रे सन्देश, अङ्क १, पृ. ६३

प्रधानाङ्ग, देविना (२०६८), **प्रारम्भिक बाल विकास शैक्षिक स्मारिका २०६८** सानोठिमी भक्तपुर शिक्षा विभाग।

नेपाल सरकार, शिक्षा मन्त्रालय, (२०६७) **प्रशिक्षक प्रशिक्षण निर्देशिका**, सानोठिमी भक्तपुर : शैक्षिक जनशक्ति विकास केन्द्र।

पौडेल, गुरु प्रसाद (२०६३), **प्रभावकारी सिकाइका लागि दण्डरहित शिक्षण**, कास्की शैक्षिक दर्पण।

शैजविके (२०६८), **बालमैत्री विद्यालयको सेरोफेरो**, स्रोत सामग्री नेपाल सरकार शिक्षा मन्त्रालय।

शिक्षा विभाग. (२०६१) **नेपालका प्रारम्भिक बाल विकास सम्बन्धी रणनीतिपत्र**, सानोठिमी, भक्तपुर।

शिक्षा विभाग (२०६७), **बालमैत्री विद्यालय राष्ट्रिय प्रारूप**, नेपाल सरकार शिक्षा मन्त्रालय।

CERID. (2004). *Formative research project study report*. Effective operation and sustainable development of early childhood development programe, strategies for rapid expansion.

Hurlock, Elizabeth B. (1992). *Child and developemnt, (5<sup>th</sup> edition)*, New Delhi: Mc. Graw Hill Company L.T. D.



# वेदका ऋचामा दाम्पत्य प्रणय

शुक्रराज अधिकारी, पिएच.डि.\*

## सार

वेद समस्त पूर्वीय साहित्य, जीवन दर्शन, ज्ञान र विज्ञानको स्रोत हो । यस आलेकमा वेदका ऋचा, वेदकालीन तथा प्राचीन भारतीय सामाजिक इतिहास सँग सम्बन्धित विभिन्न सन्दर्भग्रन्थ, अनुसन्धानमूलक लेख लगायतका विभिन्न सन्दर्भहरूबाट द्वितीय श्रोतकोरूपमा प्राप्त भएका वेद, विवाह तथा समाजशास्त्रीय दृष्टिसँग सम्बन्धित सूचनाहरूलाई ऐतिहासिक अन्तरवस्तु विश्लेषण विधिका माध्यमबाट गुणात्मक स्वरूपको विश्लेषणकार्य गरी तथ्यलाई उजिल्याउदै वेदकालीन समाज व्यवस्थाको परावर्तन दिने वेदको परिचय सगै वेदकालीन समयको दाम्पत्य सम्बन्धलाई साक्षिपूत रूपमा चर्चा गर्ने प्रयत्न गरिएको छ । वेदको अर्थ ज्ञान रहेछ । ऋग्वेद भाव, भाषा र छन्दका दृष्टिले सबैभन्दा प्राचीन ग्रन्थको रूपमा रहेको पाईयो वेदकालीन समयमा ब्रह्मचर्य पालन गरेर ज्ञान-तप-साधनामा संलग्न पुरुषहरू प्रणयको आशक्तिले भरिउन् र सन्तान उत्पादन गर्न थालून्, ब्रह्मचर्य पालन गर्न नसक्ने, प्रणयको तीव्र इच्छा भएका ऋषिहरूलाई प्रणयका लागि पत्नी उपलब्ध होऊन् भन्ने कामना गरिएको पाईयो ।

**मुख्य शब्दावली:** दाम्पत्य, प्रणय, प्रेम, सृष्टि, वेद ।

## परिचय

यो समाज विकास क्रमको आदिमकालदेखि भनौं या प्राणि जगतको उत्पत्तिसँगसगै सुरु भएको हो । किनकि दाम्पत्य प्रणयबिना सृष्टिचक्र नै प्रारम्भ हुँदैनथ्यो । सन्दर्भ यति हो कि समाज विकासको प्रारम्भिक अवस्थादेखि वर्तमानसम्मको सामाजिक गतिशीलतासँगै विकास भएका उत्पादन पद्धति एवम् मानिसको जीवन निर्वाहको शैली, साधन स्रोतको उपलब्धता, त्यसको स्वामित्व, त्यससँगै निर्माण हुँदै गएका सामाजिक मूल्य मान्यता, विधि, विधान, तत्समयको सामाजिक एवम् सांस्कृतिक मात्र नभई जैविक एवम् वातावरणीय आवश्यकता लगायतका कुराहरूले दाम्पत्य प्रणयका स्वरूपहरू, विधि, अभ्यास तथा मान्यताहरू फरक-फरक ढङ्गले विकसित एवम् परिमार्जित हुँदै जान्छन् ।

आजकलको समाजमा प्रणयका वारेमा थुप्रै चर्चा हुने गरेको पाईन्छ । तर दाम्पत्य प्रणयका वारेमा त्यती चर्चा भएको सुनिदैन । यसैले गर्दा वर्तमान समाजमा दाम्पत्य विघटन भएका घटना निकै बढी सुन्न पाईन्छ । दाम्पत्य प्रणयको ऐतिहासिक सन्दर्भ तथा शास्त्रीय व्याख्याको अनभिज्ञताले गर्दा वर्तमानमा दाम्पत्य प्रेम प्रगाढ बन्न नसकेको मान्यता पनि विकास हुँदै आएको छ । जैविक दृष्टिले दाम्पत्य प्रणय मानव सृष्टि तथा प्रजातिय निरन्तरताको लागि गाँसिएको महिला र पुरुषबीचको आपसी मेल हो । यो समाज विकास क्रमको आदिमकालदेखि भनौं या प्राणि जगत को उत्पत्तिसँगसगै सुरु भएको हो । किनकि दाम्पत्य प्रणयबिना सृष्टिचक्र नै प्रारम्भ हुँदैनथ्यो । ससंस्कृत पुरानो मानिने ग्रन्थ वेदले प्रतिनिधित्व गरेको समाज व्यवस्थामा विकास भएको दाम्पत्य प्रणय सम्बन्धलाई खोतल्ने हेतुले वेदका

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ऋचा भाव, वेद तथा वेदकालीन समाजको ऐतिहासिक व्याख्या भित्र समेटिएका अन्तर्वस्तु भित्र यस आलेख केन्द्रित रहेको छ ।

## अनुसन्धान विधि

यस आलेख पूर्णतः गुणात्मकखालको अनुसन्धान ढाँचामा आधारित छ । वेदका ऋचा, वेदकालीन तथा प्राचीन भारतीय सामाजिक इतिहास सँग सम्बन्धित विभिन्न सन्दर्भग्रन्थ, अनुसन्धानमूलक लेख लगायतका विभिन्न सन्दर्भहरूबाट द्वितीय श्रोतको रूपमा प्राप्त भएका वेद, विवाह तथा समाजशास्त्रीय दृष्टिसँग सम्बन्धित सूचनाहरूलाई ऐतिहासिक अन्तरवस्तु विश्लेषण विधिमा माध्यमबाट गुणात्मक स्वरूपमा विश्लेषण कार्य गरिएको छ । तथ्यहरूको विश्लेषण कार्यबाट तथ्यलाई उजिल्याउँदै वेदकालीन समाज व्यवस्थाको परावर्तन दिने वेदको परिचय सँगै वेदकालीन समयको दाम्पत्य सम्बन्धलाई सक्षिप्त रूपमा चर्चा गर्ने प्रयत्न गरिएको छ ।

## दाम्पत्य सम्बन्धि सैदान्तिक बहस

मोर्गन (1877) ले विवाह क्रमशः रक्त सम्बन्धको विवाह, समूह विवाह, सिण्डासमियत विवाह बहुपत्नी विवाह र एकनिष्ठ विवाहको क्रमिक स्वरूपबाट विकसित हुँदै आएको बताएका छन् । यस दृष्टिकोण अनुसार शिकार संकलित समाजमा निजी श्रीमान र श्रीमतीको धारणा समेत बनेको थिएन । कुनै नातागत सीमाहरू थिएनन् । जसले जोसँग पनि यौन सम्बन्ध राख्दथ्यो । यौन पशुवत् रूपमा थियो । खास वैवाहिक प्रक्रिया र मान्यताहरू बनिसकेका थिएनन् । त्यसैले होला मोर्गनले त्यस खालको विवाहलाई रक्त सम्बन्धको विवाहको नाम दिएका छन् । जुन लाखौं वर्ष पछि शिकार संकलित समाजको उत्तरार्धतिर र पशुपालनको प्रारम्भतिर समूह विवाहको विकास पाइन्छ । रक्त सम्बन्धको विवाहमा समाज मातृसत्तात्मक थियो । बाबुको पहिचान हुन गाह्रो थियो । आमाले सन्तान जन्माउने दुध चुसाउने र भुण्डको नेतृत्व गर्ने भएकाले आमाको पहिचान हुन्थ्यो । एउटै आमाका छोरा छोरी तथा आमा छोराका बिचमा समेत यौनसम्बन्ध कायम हुन्थ्यो । लाखौं वर्षपछिको अन्तरालमा एउटै समूहका केटाकेटीका बिच यौनसम्बन्ध वर्जित गरी भिन्न भिन्न आमाहरूको नेतृत्वमा रहेका सबै केटा, सबैकेटीका बिचमा विवाह हुने क्रम शुरु भयो । जसलाई समूह विवाह भनियो । यस विवाह अर्न्तगत सबै केटाकेटी सबैका साभा श्रीमान् श्रीमती हुन्थ्ये तर समूह फरक हुन्थ्यो । यसै खालको लामो अभ्यासपछि सबै सबैसँग समान रूपले सन्तुष्ट नहुने हुँदा आफ्नो बढी निकट र सन्तुष्टि प्राप्त केटीलाई अन्य केटासँग सम्पर्क राख्ने कार्यमा केटाहरूले नियन्त्रण जनाउन थाले पति सिण्डासमोचन विवाह र अस्थायी युगल विवाहको विकास भएको र त्यहीदेखि पितृसत्ताको जग बसेको धारण मोर्गनले यस उद् विकासवादी धारणा मार्फत अधि सारेका छन् । सिण्डासमीयन विवाहको विकास पछि पुरुषहरूको नेतृत्व स्थापित भयो । महिलाहरू पुरुष अधिनस्थ रहन थाले । यो क्रम यौन समागममा मात्र नभै सम्पूर्ण समाज व्यवस्थामा स्थापित भयो । त्यसैले गर्दा पुरुषले दुई वा दुई भन्दा बढि पत्नी विवाह गर्ने क्रमको विकास भयो । जसलाई मोर्गनले बहुपती विवाहको नाम हिंसा तथा कृषि युगमा विकास भएको बहुपत्ति विवाहको क्रम सभ्य तथा औद्योगिक समाजमा आएर एक निष्ठ विवाहको रूपमा विकसित भयो । जुन वर्तमान अवस्थाको विवाह पद्धति मानिन्छ । यसरी उद् विकासवादी दृष्टिबाट हेर्दा विवाह रक्त सम्बन्धको स्वरूपबाट क्रमशः विकसित हुँदै वर्तमान सम्म आइपुगेको देखिन्छ ।

(Ritzer, 1996) ले द्वन्दवादी दृष्टिकोणले सामाजिक संरचनाका हरेक तत्वहरूको बीचमा आपसी टकराव भैरहेको हुन्छ र त्यही आपसी टकराव तथा वाद-प्रतिवादले संरचना सञ्चालन हुन्छ भन्ने मान्यता राख्दछ भनेका छन् । यस दृष्टिकोणबाट विवाहलाई हेर्दा विवाहित जोडी एवं विवाह पछि परिवारका हरेका सदस्यहरूको बिचमा आपसी द्वन्द बढेको, मत मतान्तर भएको, संघर्ष चर्केको देखिन्छ । श्रीमान श्रीमतीको बेमेल, सासू बुहारी बिचको झगडा, नन्द भाउजुको बीचमा मत मतान्तर, सम्पत्ति, सम्पत्ति, दाइजो, कोसेली, सम्पत्ति, लेनदेनका बारेमा द्वन्द चर्किरहेको देखिन्छ । Marshal (1998) ले wilson (1975) उद्धृत गर्दै हरेक मानवीय तथा सामाजिक क्रियाकलाप तथा व्यवहारहरू जैविक तत्वहरूद्वारा प्रभावित हुन्छन् भनेका छन् । जैविक दृष्टिमा दाम्पत्य सम्बन्ध मानव सृष्टि तथा प्रजातिय निरन्तरताको लागि गाँसिएको महिला र पुरुषबीचको आपसी मेल हो । यस सिद्धान्तको आधारमा विवाहलाई हेर्दा विवाहको उमेर, विवाहमा केटा केटीले छनोट गर्ने आफ्नो जीवनसाथीको अनुहार तथा शारीरिक बनोट आदि कुराहरू मानवीय व्यवहार हुन जुन सम्बन्धित व्यक्तिको जैविक तत्वबाट प्रभावित भएको देखिन्छ । जस्तो यौन आकर्षण नदेखिने केटा वा केटीले जीवनसाथी बनाउन हिचिकाउँछन् । किशोर र किशोरी अवस्थामा यौन आवेगमा अक्सर छिटो विवाहको चाहना गरेको देखिन्छ । यतिमात्र होइन जैविक तथा यौनगत हिसावले कमजोर भएको मानिससँग विपरीत लिंगीको मानिस सकेसम्म नजिक हुन तयार हुँदैन । यो सबै जैविक तत्वको प्रभाव हो । त्यसैगरी विवाह कार्यमा गोत्रको व्यवस्था हुनु गोत्रभन्दा बाहिरकासँग विवाह गर्ने चलन हुनु पनि जैविक तत्वको अप्रत्यक्ष प्रभावको रूप हो । दाम्पत्य आफैमा जैविक आवश्यकता पुरा गर्ने एक कार्य ढाँचा भएकाले जैविकीय समाजशास्त्रीय दृष्टिमा विवाहका थुप्रै पद्धतिहरू जैविकीय तत्वबाट प्रभावित भएको देखिन्छ ।

संरचनात्मक प्रकार्यवादले हरेक समाज तथा संस्कृतिका संरचनाभिन्न रहेका विभिन्न इकाइहरूले आपसी सहमति र समन्वयमा रहेर कार्य गर्दछन् र त्यसै कार्य अनुरूप संरचना सञ्चालन हुन्छ भन्ने मान्यता राख्दछ (Coser, 1996) । यस दृष्टिबाट हेर्दा विवाह पनि सामाजिक संरचनाको एक इकाई हो । यसले समाजका अन्य इकाईहरूसँग समन्वयमा रहेर कार्य गरेको देखिन्छ । विवाह सामाजिक संरचनाको आधार तहको एक सामाजिक संस्थाको रूपमा विकसित भएको देखिन्छ । वैवाहिक प्रक्रिया पछिको दाम्पत्य जीवनमा सहभागी दम्पतीहरू आपसी सहकार्यमा संलग्न भैरहेका प्रतीत हुन्छ । विवाहपछि प्राप्त हुने सामाजिक हैसियत तथा मर्यादा क्रममा बाँधिँएर हरको सदस्यले कार्य गरिरहेको देखिन्छ । (Turner, 1995) ले व्यक्तिवादी प्रकार्यवादका व्याख्यता मेलिनोस्कीको व्याख्या लाई जोड्दै अनुसार विवाह मानिसको जैविक तथा सामाजिक चाहना पुरा गराउन विकसित भएको साँस्कृतिक इकाई भन्ने बुझिन्छ भनेका छन् । विवाहको माध्यमबाट मानिसले आफ्नो यौनजनय चाहना तथा सन्तान उत्पादन कार्य पुरा गरेको देखिन्छ । समाजजादी प्रकार्यका व्याख्यता दुर्खिमको दृष्टिमा हेर्ने हो भने विवाह व्यक्तिगत चाहना भन्दा पनि सामाजिक आवश्यकता हो । समाजको सृष्टिचक्रको निरन्तरताको लागि समाजमा विवाह संस्थाको विकास भन्ने बुझिन्छ ।

## प्राप्ति तथा छलफल

### वेद

वेदको अर्थ ज्ञान हो । तर अति प्राचीन भाषामा रचिएका र तत्कालीन व्याकरण पनि अर्धलुप्त भएकोले हामी आफ्नै ज्ञानभण्डारप्रति अज्ञानी छौं । लामै समयदेखि अर्थ बुझेर वेद पढ्ने परम्परा टुटेकोले सामान्य सारस्वरसहित पाठ घोक्ने परम्पराको एक अंशले वेद बाच्दै आएको छ । वेद समस्त पूर्वीय साहित्य, जीवन दर्शन, ज्ञान र विज्ञानको स्रोत हो ।

वेद संसारभरिकै सबैभन्दा पुरानो ग्रन्थ मानिएको छ । सांस्कृत्यायन (२००७) ले वेदलाई आर्य सभ्यताको प्राचीन साहित्यको रूपमा उल्लेख गरेका छन् । उनले ऋग्वेदको समय ई.पू. १५०० वर्षभन्दा पुराने भएको बताएका छन् । वेदका सूक्तहरूमा धार्मिक, आध्यात्मिक विषयका अतिरिक्त भौतिक, वैज्ञानिक, शैक्षिक, भाषिक, साहित्यिक, सांस्कृतिक, सामाजिक, राजनैतिक इत्यादि विषयहरू समेटिएका छन् । Mathews(1991) ले वेदका ऋचाहरूले थुप्रै देवताहरूको प्रशंसा गर्दै प्राचीन हिन्दूहरूको अनुभूति र सोचाइहरूलाई प्रदर्शन गरेको पसङ्ग उल्लेख गरेका छन् । Chudari(1996) ले वेदलाई सम्पूर्ण हिन्दू धर्मावलम्बीहरूको पवित्र र प्रमाणिक स्रोतको प्रतिकका रूपमा उल्लेख गरेका छन् । राधाकृष्णन (२००४) ले ऋग्वेद संहिता करिब दशहजार छ सय ऋचा एक हजार सत्र सूक्त र आठ अष्टकमा विभक्त भएको बताएका छन् । उक्त सूक्तहरू विभिन्न ऋषिहरूले छन्दोबद्ध रूपमा निर्माण गरेको पसङ्ग उल्लेख गरेका छन् ।

अधिकारी (२०१२) ले ऋग्वेदलाई भाव, भाषा र छन्दका दृष्टिले सबैभन्दा प्राचीन ग्रन्थको रूपमा लिएका छन् । जसमा अधिकांस देवताहरू प्राकृतिक तत्वको प्रतिनिधिको रूपमा रहेको बताएका छन् । उनका अनुसार ऋग्वेदभित्र दश मण्डल, एक हजार अष्टादश सूक्त र दश अजार पाँचसय बाउन्न मन्त्र भएको उल्लेख छ । द्विवेदी (२००८) ले ऋग्वेदमा आर्य संस्कृतिको विशद निरूपण गरिएको बताएका छन् । उनले यसमा प्राचीन आर्यहरूको सामाजिक, राजनैतिक, आर्थिक, शैक्षिक, नैतिक अवस्थाको चित्रण गरिएका उल्लेख गरेका छन् ।

विद्यालंकार (२००७) ले ऋग्वेदमा कुल १०२८ सूक्त रहेका, जसमा मूल रूपमा १०१७ सूक्त र ११ बालखिल्य सूक्त रहेको उल्लेख गरेका छन् । बालखिल्य सूक्तलाई परिशिष्टको रूपमा राखिएको छ । केही विद्वानहरूले बालखिल्यअन्तर्गत रहेका सूक्तलाई वेदको अङ्ग नमानेर वेदका खास सूक्त १०१७ मात्रै हुन भन्ने तर्क पनि गरेका छन् ।

डा. माधव प्र.पोखरेले वेदलाई मध्य एसियादेखि सप्त सिन्धु र गंगा नदीसम्म बसोबास गर्ने आर्य जातिको साहित्यको रूपमा चर्चा गरेका छन् (दीक्षित, २०५६) । प्रश्रित (२०५६) ले ऋग्वेदका सूक्तहरूले कृषि कार्य र अन्न उत्पादन माथि विशेष जोड दिएको बताएका छन् । वेदले पूर्वलाई संसार हेर्ने आँखा दियो । धर्म, अर्थ, काम, मोक्षलगायत जीवन-मूल्यको आदर्श दियो । मानवीय मूल्य, प्रेम, करुणा, भक्ति, वैराग्य, पारिवारिक सम्बन्धहरू, जीवन, जगत्, जन्म, मृत्यु, आत्माको अमरता, पुनर्जन्म, इहलोक, परलोकको दर्शन र मान्यता दियो । देहकर्म, परिवारकर्म, समुदायकर्म, देशकर्म र पञ्चतत्व र देवकर्मप्रतिको दायित्व बतायो, सभ्यता दियो । मानव जातिलाई समाज-व्यवस्था, साहित्य, राजनीति, इतिहास, भूगोल, वातावरण, खगोल, गणित, दर्शन, नीति र चिन्तनको सौन्दर्यशास्त्र दियो । कालक्रममा बुद्ध, महावीर, आदि शङ्कराचार्यलगायत विश्वका अनेक मुनि, मनीषीहरूका सामयिक चिन्तन, व्याख्या

र व्यवहारको स्रोत पनि वैदिक साहित्य र दर्शन थियो जसमार्फत मानव सभ्यताले समयानुकूल ऊर्ध्वगामी चेत पनि प्राप्त गर्दै आयो । वेद अर्थात् विश्वका सबभन्दा प्राचीन ज्ञानग्रन्थ । तीमध्ये सबभन्दा जेठो ऋग्वेद जसले मध्य, पश्चिम र दक्षिण एसियाको चार-पाँच हजार वर्षपूर्वको इतिहास, संस्कृति, चिन्तन र जीवनपद्धतिका अनेकौं आयाम समेटेको छ ।

### वेदका ऋचामा प्रणयभाव

मानव जीवनको कार्य विभाजनको रूपको रूपमा रहेका चार आश्रम मध्येको दोस्रो गृहस्थ आश्रमको प्रवेशद्वारको रूपमा दाम्पत्य सम्बन्धलाई उल्लेख गरिएको छ । आर्य समाज र संस्कृति तथा विभिन्न वैदिक तथा स्मृति साहित्यहरूमा उल्लेख भएका विभिन्न संस्कार मध्येको महत्वपूर्ण संस्कारको रूपमा विवाहलाई चर्चा गरको पाइन्छ (Pandey, 1985) । यहाँ संस्कार भन्नाले मानव जीवनको परिष्कार भन्ने सन्दर्भ पाइन्छ । यस अनुसार हेर्दा विवाहलाई पनि मानवीय जीवनको शुद्धि तथा परिष्कारका लागि विकास गरिएको एक संस्कार जन्य प्रक्रियाको रूपमा बुझिन्छ ।

जोशी (१९८८) ले ऋग्वेद कालीन समयमा नै दाम्पत्य प्रेमका थुप्रै सन्दर्भ पाइने चर्चा गरेका छन् । ऋग्वेदका १-१-८, १-६१-९, १-७५-५, १-१२७-८, २-३९-२, ५-२२-४ लगायतका ऋचाहरूमा दम्पती शब्दको प्रयोग भएको तर्क जोशीको रहेको छ । ‘दम’ शब्दको अर्थ गृह (घर) र ‘दम्पती’ को अर्थ गृहस्वामी तथा गृहस्वामिनी (पति एवम् पत्नी) का रूपमा हुने गर्दछ । वैदिक संहिता कालमा दम्पती शब्द घरमा पति पत्नीको समान स्वामित्वको सूचकको रूपमा प्रयोग भएको छ (जोशी, १९८८) ।

ऋग्वेदको २-३९-२ मा “हे दुई अश्विनी कुमारहरू ! विवाह नै यात्रा गर्ने दुई जना रथीहरूभैँ वीर दुईवटा बाखाहरूभैँ जुम्ल्याह शृंगार गरेका दुई वटी स्त्रीहरूभैँ आफ्ना शरीरद्वारा सुशोभित दम्पतीभैँ सँगै हिँड्ने मानिसहरूमा सबै कर्म जान्ने तिमी दुवै श्रेष्ठ स्तोता भएतिर आउँदछौ, हे यूष मनुष्यले जुन पत्नीमा बीउ रोप्छन्, हामीलाई चाहने जुन पत्नीले दुवै तिघालाई फैलाउँछिन्, सन्तान चाहने हामी जुन पत्नीमा लिङ्ग प्रवेश गराउँछौ तिमी ती अत्यन्त कल्याणी पत्नीलाई राम्ररी उत्साहित गर । अथर्ववेदमा पतिका घरमा सुसन्तानले युक्त हुँदै तिम्रो स्नेहको वृद्धि होस् र त्यसै घरमा तिमी गृहपत्य अग्निका लागि जागरूक हुँदै गृहस्थ धर्मको कर्तव्यहरूको निर्वाह गर्दै सधै सजग होऊ । स्वामीका साथमा तिमी एक मन एक प्राणले संयुक्त होऊ । वृद्ध अवस्थामा तिमीहरू दुवैले आफ्ना सन्तानलाई उचित परामर्श प्रदान गर” भन्ने भाव देखिन्छ (लुइटेल्, २०६३ क, ख ) । यी भावहरूले वेदकालीन समाजमा रहेको दाम्पत्य प्रेमलाई दर्शाएको देखिन्छ ।

वेदकालीन समयमा दम्पतीको बीचमा प्रगाढ प्रणय सम्बन्ध रहेको देखिन्छ । दम्पति बीचको प्रणय सम्बन्ध सन्तान उत्पादनसँग सम्बन्धित भएको पनि पाइन्छ । ब्रह्मचर्य आश्रमपछिको गृहस्थ आश्रममा प्रवेश गर्न दाम्पत्य सम्बन्धमा बाधिनुपर्ने र दाम्पत्य सम्बन्धमा रहेपछि गृहस्थ धर्म पालन गर्न पर्ने, त्यसका लागि वंश विस्तार गर्न दम्पति प्रणय तथा सहवासमा संलग्न हुनु अनिवार्य थियो । प्रणयको लागि पति पत्नी दुवै सबल र सक्षम हुनुपर्ने बुद्ध्यौलीको प्रणयले शरीर क्षण गराउँछ भन्ने मान्यता समेत त्यस बखत रहेको देखिन्छ ।

ऋग्वेदको पहिलो मण्डलको एकसय उनान्असीऔं सूक्तको पहिलो ऋचामा लोपमुद्राले इन्द्रदेवलाई सम्बोधन गर्दै बुद्ध्यौलीले शरीरको क्षमता क्षीण गराउँछ । पत्नीसँग समर्थ पुरुषमात्र जाऊन्<sup>१</sup> भन्ने भाव व्यक्त गरेको देखिन्छ । ऋग्वेदको उही पहिलो मण्डलको एकसय उनान्असीऔं सूक्तको दोस्रो ऋचामा ऋषिहरूको स्तरमा पुगेर साधनामा संलग्न भएका मानिसहरू पनि सन्तान उत्पादन गर्न थालेका थिए । उनीहरू जीवनको अन्तिम चरणसम्म ब्रह्मचर्यमा रहेनन् । त्यस्तै अति समर्थ पुरुषलाई पत्नी उपलब्ध होऊन्<sup>२</sup> भन्ने भाव व्यक्त गरिएको छ ।

अथर्ववेदको चौधौं काण्डको दोस्रो सूक्तको एक्काइसौं, बाइसौं र तेइसौं ऋचामा पतिसँगै रहने धर्मपत्नीका लागि आसनका रूपमा सुखदायक मृगचर्म बिछ्याएर संरक्षणका साधनहरू ल्याऔं<sup>३</sup> पति प्राप्त गर्ने कन्या विछ्याएको आसनमा आरोह गरून्<sup>४</sup> त्यही आसनमा बसेर सन्तान जन्माउन चाहने स्त्रीले अग्निको अर्चना गरून्<sup>५</sup> भन्ने भाव व्यक्त भएको छ ।

अथर्ववेदको (अ.-१४-२-३१ लुईटेल, २०६३ ख ४४९) ऋचाका मनमा प्रसन्नताको भाव धारण गर्दै तिमी विस्तारामा आऊ र पतिका लागि श्रेष्ठ सन्तान जन्माइदेऊ<sup>६</sup> भन्ने भाव व्यक्त भएको छ ।

अथर्ववेदको (अ.-१४-२-३२ उही) ऋचामा देवता पनि आफ्नो सहयोगीसँग सहवास गर्दथे, तिमी पनि सन्तानको इच्छा गर्दै पतिसँग संयुक्त हुँदै सहवास गर<sup>७</sup> भन्ने भाव व्यक्त भएको देखिन्छ ।

अथर्ववेदको (अ.-१४-२-३७ उही-४४९) ऋचामा स्त्री पुरुष दुवैलाई सम्बोधन गर्दै तिमीहरू मातापिता बन्न सक्षम भएकाले स्त्री ऋतुवती भएको बेला संयुक्त देओ, विर्यवान् पुरुषले स्त्रीसँग सहवास गरेभैं तिमी स्त्रीसँग प्रणयमा बाँधिएर, सन्तान जन्माएर, धन सम्पत्तिको पनि वृद्धि गर<sup>८</sup> भन्ने भाव व्यक्त भएको छ । अथर्ववेदको ऋचामा स्त्रीसँग तिमी प्रेमपूर्वक संयुक्त होऊ । प्रसन्न चित्त भएर तिमी स्त्रीलाई स्पर्श गर । तिमीहरू दुवै आनन्दविभोर हुँदै सन्तान जन्माओ<sup>९</sup> जुन स्त्रीले प्रेम प्रदर्शित गर्दै उल्लसित हुँदै तिमी तिघ्राहरूको भाग फिजाँऊ । उनको गर्भमा उत्साहपूर्वक सफल होस् भन्ने विश्वासले बीजको स्थापना गरियोस्<sup>१०</sup> भन्ने भाव व्यक्त भएको छ ।

## निष्कर्ष

ऋग्वेद भाव, भाषा र छन्दका दृष्टिले सबैभन्दा प्राचीन ग्रन्थको रूपमा रहेको पाइयो । जसमा अधिकांश ऋचाहरूले सामाजिक तथा सांस्कृतिक सम्बन्धको बिम्ब प्रदान गर्दा रहेछन् । वेदका ऋचाभावहरूले सन्तानोत्पत्तिको लागि समर्थ दम्पतीबीचको प्रणय मात्र सुखद् रहने गरेको, सहवासका निमित्त समर्थवान् पुरुषहरूले मात्र पत्नीसँग सम्बन्ध राखून् भन्ने ठानेको पाइयो । वेदकालीन समयमा ब्रह्मचर्य पालन गरेर ज्ञान-तप-साधनामा संलग्न पुरुषहरू प्रणयको आशक्तिले भरिउन र सन्तान उत्पादन गर्न थालून्, ब्रह्मचर्य पालन गर्न नसक्ने, प्रणयको तीव्र इच्छा भएका ऋषिहरूलाई प्रणयका लागि पत्नी उपलब्ध होऊन् भन्ने कामना गरिएको पाइयो । त्यस समयमा प्रणयको बेला दम्पतीहरू मृगचर्मको आसनमा बौद्ध्यौना बनाउँदथे । प्रणयपछि असल सन्तान जन्मोस् भन्ने कामना गर्दै अग्निको अर्चना पनि गर्दथे र सन्तान प्राप्तिका लागि प्रणय सम्बन्ध अनिवार्य थियो भन्ने तथ्य प्राप्त हुन्छ त्यसैले ऋतुकालमा सहवास गरेर सन्तान उत्पादन गर्दै धनसम्पत्ति समेत वृद्धि होस् भन्ने कामना गर्दै प्रेमपूर्वक प्रणयमा संलग्न होऊ, प्रेमपूर्वक भएको प्रणय सम्बन्धबाट सन्तान जन्माऊ भन्ने कामना गरिको देखिन्छ । प्रणयको लागि पति पत्नी दुवै

सबल र सक्षम हुनुपर्ने बुद्ध्यौलीको प्रणयले शरीर क्षण गराउँछ भन्ने मान्यता समेत त्यस बखत रहेको देखिन्छ । यी तथ्यहरूले जैविकीय समाजशास्त्रीय दृष्टिकोणसँग सादृश्यता राखेको देखिन्छ भने दाम्पत्य आफैमा जैविक आवश्यकता पुरा गर्ने एक कार्य ढाँचा भएकाले विवाहका पद्धतिहरू जैविकीय तत्वबाट प्रभावित भएको पाइन्छ । वेदकालीन समयमा दम्पतीको बीचमा प्रगाढ प्रणय सम्बन्ध रहेको देखिन्छ । दम्पति बीचको प्रणय सम्बन्ध सन्तान उत्पादनसँग सम्बन्धित भएको पनि पाइन्छ । ब्रह्मचर्य आश्रमपछिको गृहस्थ आश्रममा प्रवेश गर्न दाम्पत्य सम्बन्धमा बाधिनुपर्ने र दाम्पत्य सम्बन्धमा रहेपछि गृहस्थ धर्म पालन गर्न पर्ने देखिन्छ । यी तथ्यहरूले संरचनात्मक प्रकार्यवादी दृष्टिले दाम्पत्यलाई हेर्ने मान्यतासँग बढी सदृश्यता देखाएको अनुभव हुन्छ ।

### (Endnotes)

- 1 पूर्वीरहं शरदः शश्रमाणा दोषा वस्तोरुषसो जरयन्तीः ।  
मिनाति श्रियं जरिमा तनूनामप्यु नु पत्नीर्वृषणो जग्युः ॥१॥  
हे इन्द्रदेव ! हामी विगतका अनेकौं वर्षदेखि उषाकाल, रात र दिनमा निरन्तर परिश्रम गर्न लागेका छौं । बुद्ध यौलीले शरीरको क्षमता क्षीण गराउँछ । पत्नीसँग समर्थ पुरुष मात्रै जाउन् । (ऋ-१-१७९-१, लु. ०६३ क-१९३)
- 2 ये चिद्धि पूर्व ऋतसाप आसन्त्साकं देवेभिरवन्तानि ।  
ते चिदवासुर्नह्यन्तमापुः समू नु पत्नीर्वृषभिर्जग्युः ॥२॥  
उहिले ऋषिको स्तरमा पुगेर सत्य साधनामा लागेका र देवताहरूसँग साँचो सत्य बोल्ने मानिस जे जति थिए । तिनीहरूले पनि सन्तान उत्पादन गरेका थिए । उनीहरू अन्त्यसम्म ब्रह्मचर्य आश्रममा रहेनन् । त्यस्तै अति समर्थ पुरुषलाई पत्नी उपलब्ध होउन् । (उही-२, उही)
- 3 शर्म वमैतदा हरास्यै नार्या उपस्तरे । सिनीवालि प्र जायतां भगस्य सुमतावसत् ॥२१॥  
पतिसँग रहने धर्मपत्नीका लागि आसनका रूपमा सुखदायक मृगचर्म बिछ्याएर संरक्षणका साधनहरू ल्याऔं । हे सिनिवाली नामकी अन्नकी देवी ! यी स्त्रीले राम्रोसित सन्तान जन्माउन् र सौभाग्यका लागि श्रेष्ठ आशीवाद प्राप्त गरून् । (अ.-१४-२-२१ लु. ०६३ ख-४४८)
- 4 यं बल्वजं न्यस्यथ चर्म चोपस्तृणीथन । तदा रोहतु सुप्रजा या कन्या विन्दते पतिम् ॥२२॥  
तिमीले बिछ्याएका आसन वा मृगचर्ममा यी असल सन्तान जन्माउनका लागि पति प्राप्त गर्ने कन्या आरोहण गरून् । (उही-२२-उही-४४९)
- 5 उप स्तृणीहि बल्वजमधि चर्मणि रोहिते । तत्रोपविश्व सुप्रजा इममग्निं सपर्यतु ॥२३॥  
सबैभन्दा पहिले आसन ओछ्याऊ त्यसपछि मृगचर्म बिछ्याऊ, त्यसैमा श्रेष्ठ सन्तान जन्माउन चाहने स्त्री बसून् र अग्निको अर्चना गरून् । (उही-२३-उही)
- 6 आ रोह तल्पं सुमनस्यमानेह प्रजां जनय पत्ये अस्मै ।  
इन्द्राणीव सुबुधा बुध्यमाना ज्योतिरग्रा उषसः प्रति जागरासि ॥३१॥  
मनमा प्रसन्नताको भाव धारण गर्दै तिमी विस्तरामा आऊ र पतिका लागि श्रेष्ठ सन्तान जन्माइदेऊ । तिमी इन्द्राणीजस्तै बुद्धिले सम्पन्न भएर, उषा कालमा भन्दा पहिले नै जागेर निद्रा छाड्दै उड । (अ.-१४-२-३१)



लुईटेल २०६३-४४९)

- 7 देवा अग्रे न्य पद्यन्त पत्नीः समस्पृशन्त तन्व स्तनूभिः ।  
सूर्येव नारि विश्वरूपा महित्वा प्रजावती पत्या सं भवेह ॥३२॥  
प्राचीन कालमा देवताहरू पनि आ-आफूना सहयोगी शक्तिहरूसँग सहभागी भएर आफूनी शरीरसँग उनीहरूका शरीरलाई एकै ठाउँमा संयुक्त गराउने गर्दथे । हे स्त्री ! तिमी पनि सूर्यको पुत्रीको जस्तै आफूलाई महिमाले अनेकौं रूपका सन्तान निर्माण गर्ने इच्छा गरेर पतिसँग संयुक्त हुँदै सहवास गर । (उही-३२)
- 8 सं पितरावृत्तिये सृजेथा माता पिता च रेतसो भवाथः ।  
मर्य इव योषामधिरोहयैनां प्रजां कृष्वाथामिह पुष्यतं रयिम् ॥३७॥  
हे स्त्री पुरुषहरू हो ! तिमीहरू आ-आफूनी रेतस नामका उत्पादक सामार्थ्यले नै मातापिता वन्नमा सक्षम हुन्छौ । त्यसैले ऋतुकालमा संयुक्त होऔ । वीर्यवान् पुरुष भई यी स्त्रीसँग संयुक्त होऊ । तिमीहरू दुईले सन्तान जन्माओ र धन सम्पत्ति पनि वृद्धि गर । (उही-३७)
- 9 आ रोहोरुमुप धत्स्व हस्तं परि ष्वजस्व जायां सुमनस्यमानः ।  
प्रजां कृष्वाथामिह मोदमानौ दीर्घं वामायुः सविता कृणोतु ॥३९॥  
स्त्रीसँग तिमी प्रेमपूर्वक संयुक्त होऊ । प्रसन्न चित्त भएर तिमी स्त्रीलाई स्पर्श गर । तिमीहरू दुवै आनन्द विभोर हुँदै सन्तान जन्माओ । सवितादेवले तिमीहरू दुवै स्त्रीपुरुषले आयुवृद्धि गराउन् । (उही-३९-४५१)
- 10 तां पुषिच्छिर्वतमामेरयस्व यस्यां बीजं मनुष्याः वपन्ति ।  
या न उरू उशती विश्रयाति यस्मामुशन्तः प्रहरेम शेषः ॥३८॥

पोषणका कार्यमा समर्थ हे पूषादेवता ! ती कल्याणकारिणी उर्वराशक्ति रूपा स्त्रीलाई तिमी प्रेरित गर । उनैमा मानिसले बीज रोप्ने काम गर्नु । उस स्त्रीले प्रेम प्रदर्शित गर्दै उल्लसित हुँदै तिमी तिघ्राहरूको भाग फिजाँऊ । उनको गर्भमा उत्साहपूर्वक सफल होस् भन्ने विश्वासले बीजको स्थापना गरियोस् (उही-३८-उही-४५०) ।

## सन्दर्भ सूचि

- Chudari, C. N. (1996) *Hinduism India*: Oxford University Press.
- Coser, L. A. (1996). *Masters of Sociological Thought*. New Delhi: Rawat Publications.
- Marshall, G. (ed.) (1998). *Dictionary of Sociology*. New York: Oxford university Press.
- Matthews, W. (1991) *World Religions*. America: West Publishing Company..
- Morgan, L. H. (1877). *Ancient Society*. London: Macmillan.
- Pandey, R. (1968). *Hindu Sankaras*: Delhi: Motilal Vanarasidas
- Turner, J. (1995). *The Structure of Sociological Theory*. India: Rawat Publications Jaipur.
- अधिकारी, शुक्रराज (२०१२) । “वैदिक सामाजिक संरचनामा समाजशास्त्रीय दृष्टि” पृथ्वी (ए मल्टि डिसीप्लिनरी रिसर्च जर्नल रिसर्च कमिटी, पृथ्वीनारायण क्याम्पस, पोखरा), अङ्क ५, पृ. ८८-१०० ।
- जोशी, महेशचन्द्र (१९८८), *प्राचीन भारतमा दाम्पत्य मर्यादा*, बनारस: भारत ।

द्विवेदी, कपिलदेव (२००८), *वैदिक साहित्य एवम् संस्कृति*, बनारस : विश्वविद्यालय प्रकाशन  
दीक्षित, मदनमणि (२०५६), *हाम्रा प्राचीन नारी*, सिक्किम : निर्माण प्रकाशन ।  
प्रश्रित, मोदनाथ (२०५६), “भूमिका”, *हाम्रा प्राचीन नारी*, सिक्किम: निर्माण प्रकाशन ।  
राधाकृष्णा, सर्वपाली (२००४), *भारतीय दर्शन*, दिल्ली : राजपाल एण्ड सन्ज  
लुईटेल, तिलकप्रसाद (अनु.) (२०६३ क), *ऋग्वेद*, काठमाडौं: विद्यार्थी पुस्तक भण्डार ।  
लुईटेल, तिलकप्रसाद, (अनु.) (२०६३ ख), *अथर्ववेद*, दिल्ली: चौखम्बा संस्कृत प्रतिष्ठान ।  
विद्यालंकार, सत्यकेतु (२००७), *वैदिक युग*, नई दिल्ली : श्री सरस्वती सदन ।  
सांकृत्यायन, राहुल (२००७), *दर्शन-दिग्दर्शन*, इलाहाबाद : किताबमहल ।

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Title should be brief clear, concise and informative. Do not include the authority for taxonomic names in the title. The first letter of the first word in the title is capitalized. All the other words, except for proper nouns, are lower case. The author/s' name and present affiliation and e-mail address should appear just below the title.

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Body of manuscripts should be preceded by an abstract with the maximum length of 200-2500 words for full-length article. It should be clear, concise and complete in its own limits providing a brief summary of the research including the objective, method, results and major conclusion. Do not include literature, citations in the abstract.

**Keywords:** Five to eight Keywords should be provided at the bottom of the abstract arranged alphabetically.

### **Main context**

Main texts should be organized under the following headings:

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**Results and Discussion** generally should be stated concisely and clearly in descriptive, tabular and graphical forms. This section should address the objective of specific objectives systematically. Discussion should provide; interpretation of the result without recapitulation them, comparison of the results and impact of the results on existing knowledge of the subject.

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**Acknowledgements:**

It should be short and specific providing information about various supports (eg. funding, supervision, field assistance) received for research.

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We follow, American Psychological Association (APA) format for tables, figures and references, therefore contributors are requested to prepare their manuscript strictly based on the latest version of APA format but language related articles will be developed according to MLA format.

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